



# Govt. issues notice to Meta on 'child sexual abuse' ads

Instagram, owned by Meta, ordered to disable advertisements promoting explicit child content and provide explanation within seven days; 'further action' to be decided after reviewing reply

**The Hindu Bureau**  
NEW DELHI

**T**he Ministry of Electronics and Information Technology has directed Meta, the parent body of several social media platforms, to disable advertisements and content promoting and facilitating access to child sexual exploitative and abuse material (CSEAM) on Instagram, according to government sources. It has also sought an explanation on the issue.

"The Ministry has ordered Instagram to disable such advertisements. The government has also demanded a detailed explanation on the action taken and other relevant information within seven days. A notice in this regard was issued on Saturday," said a

**Unsafe space**

The notice comes amid allegations that Meta's algorithm had been promoting videos with child sexual abuse material on its platforms

The government has demanded a detailed explanation from the corporation on actions taken against the advertisements and other relevant information within seven days

Instagram is alleged to have shown paid advertisements with child sexual abuse material which directed users to Telegram channels where such content was reportedly on sale

Meta's advertisement policy prohibits content with sexually suggestive activities

Meta is in a 'constant battle with criminals who hide among our 3.5 billion users and try to evade detection', a spokesperson said

source. It is learnt that the notice was sent following a directive from IT Minister Ashwini Vaishnaw to senior Ministry officials. Further course of action will be decided after reviewing the reply, said the source.

The move came a day af-

ter the BBC Eye published its investigation revealing that Instagram had allegedly been running "paid adverts promoting child sexual abuse material in India" and that such advertisements linked users to channels on Telegram, where they could buy the

material. Meta's policy on advertisements, meanwhile, stipulate that their content must comply with community standards and must not have imagery depicting nudity and activities that are sexual or sexually suggestive

In response to a query on the notice, a Meta spokesperson pointed to an earlier statement shared after the BBC report came out, where Meta said it had a "zero tolerance policy for soliciting or sharing CSEAM" and added that while Meta deployed technology to detect such advertisements, it was in a "constant battle with criminals who hide among 3.5 billion users and try to evade detection".

**CONTINUED ON**  
» PAGE 10



## GS Paper II – Governance

### SPOTLIGHT

#### Bindu Shajan Perappadan

Saritha, 27, could not manage to exclusively breastfeed her sons – now aged four and eight – for the recommended first six months despite having normal institutional deliveries. She works as a domestic help in central Delhi's Rajendra Nagar. Her husband drives for a ride-hailing platform and takes up odd jobs such as washing cars and serving at weddings to support the family. "I returned to work within two months of my delivery and had no option but to introduce infant formula before my sons turned six months old. If I do not work, we cannot pay rent or meet our living expenses," she said.

Saritha is among a growing number of mothers in India unable to exclusively breastfeed (EBF) their infants for the recommended six months.

#### Why EBF matters

EBF is considered one of the most effective interventions for ensuring the survival and healthy development of the child. Breast milk contains antibodies that protect an infant against common illnesses such as diarrhoea and respiratory infections, supports healthy growth and brain development, and lowers the risk of malnutrition and infant mortality.

The World Health Or-

ganization (WHO) and the United Nations Children's Fund (UNICEF) recommend initiating breastfeeding within one hour of birth and continuing it for the first six months.

Trends in EBF are closely monitored in the National Family Health Survey (NFHS) because they are important indicators of child health, nutrition, and overall public health progress. The latest NFHS-6 indicates worrying trends.

#### A worrying decline

Despite 90.6% of deliveries in the country now being institutional, fewer infants are exclusively breastfed during the first six months. Although early initiation of breastfeeding has improved from 41.8% to 50.1%, EBF declined from 63.7% in NFHS-5 to 55.8% over the same period, as per NFHS-6 (2023-24).

NFHS-6 data show some of the sharpest declines in exclusive breastfeeding in some of the largest States. In Uttar Pradesh, EBF fell from 59.7% to 34.6% while in Haryana it fell from 69.5% to 41.2%. Delhi witnessed a drop from 64.3% to 54% as well. Rajasthan and Madhya Pradesh also recorded declines. In contrast, Kerala, Gujarat, and West Bengal registered improvements in EBF rates.

What is also worrying is that, as per the survey, the decline in EBF was steeper in rural areas. Data show that EBF among infants below six months fell from 65.1% to 56.2% in rural

## The missing link in India's maternal health story

Despite improvements in institutional deliveries and maternity programmes, exclusive breastfeeding rates have declined, according to NFHS-6 data



**Healthy start:** The World Health Organization and UNICEF recommend exclusive breastfeeding during the first six months to support healthy growth and protect infants from common illnesses. FILE PHOTO

areas. In urban areas, it fell from 59.6% to 54.5%.

#### A paradox

What makes the decline particularly striking is that it comes at a time when India has made significant gains in maternal and child health.

Early initiation of breastfeeding has improved, maternity benefits have expanded, and women are more financially and digitally empowered than ever before.

Nearly 89% of women now participate in key household decisions while a si-

imilar proportion operate their own bank accounts. Digital inclusion has expanded rapidly, with Internet use among women rising from 33.3% in NFHS-5 to 64.3% in NFHS-6. Yet fewer infants are being exclusively breastfed during the first six months.

"The decline in EBF despite these improvements indicates that empowerment alone may not be sufficient. Growing economic pressures, informal employment, lack of maternity protection, inadequate workplace support and limited postnatal assistance

continue to constrain many mothers' ability to exclusively breastfeed their infants for the recommended first six months," said Arun Gupta, paediatrician and public health advocate recognised for his decades-long drive to promote breastfeeding.

#### Obstacles to EBF

Health experts attribute the decline, particularly in rural India, to increased migration and seasonal labour, early return to agricultural and informal work, changing family structures, erosion of tra-

ditional support networks, greater penetration of packaged foods and formula products, weak postnatal counselling and rising caesarean deliveries.

The sharp rise in C-section rates, from 21.5% to 27.2%, is also cited as a contributing factor. Breastfeeding advocates say surgical deliveries can make early initiation and continuation of breastfeeding challenging, especially in absence of adequate postnatal lactation support.

"Common medical reasons for not being able to exclusively breastfeed include delayed initiation of breastfeeding after delivery, especially following a C-section; perceived or actual low milk supply; lack of breastfeeding counselling and family support; maternal illness or complications; and difficulties faced by premature or low birth weight infants," said Delhi Medical Association member Anil Bansal.

Vandana, 32, became a mother four years ago. An HR consultant at a private firm, she was unable to exclusively breastfeed her child for the recommended six months.

"After my C-section, despite skin-to-skin contact, lactation support and frequent feeding attempts, I could not produce enough milk to meet my baby's nutritional needs. Supplementation became necessary," she said, adding that early counselling may have helped her. When breastfeeding is

not possible, the WHO recommends infant formula as an alternative. Some hospitals also provide pasteurised donor human milk, particularly for preterm and unwell newborns. However, public health experts stress that formula is intended as a substitute when breastfeeding cannot be sustained, not as a replacement for breast milk.

#### Policy measures

India promotes breastfeeding through programmes such as Pradhan Mantri Matru Vandana Yojana and Integrated Child Development Services. Comprehensive Lactation Management Centres and Lactation Management Units provide lactation support and donor human milk when the mother's milk is unavailable.

The Infant Milk Substitutes Act, restricts the promotion of infant formula and protects breastfeeding from commercial marketing pressure. However, Dr. Gupta said aggressive marketing of infant formula and substitutes could still undermine breastfeeding and should be strictly regulated. According to Dr. Gupta, breastfeeding is among the most cost-effective public health interventions, even as data expose a gap between policy success and lived reality.

#### The informal sector

Women employed in the organised sector are entitled to 26 weeks of paid ma-

ternity leave under the Maternity Benefit Act, 1961, amended in 2017. Unfortunately, these protections are largely confined to the organised sector.

According to the e-Shram portal, a national database of unorganised workers, over 16.69 crore women were registered as workers in the unorganised sector as of 2025.

According to health experts, this disconnect raises a fundamental policy question: can India expect mothers to exclusively breastfeed for six months when most receive neither income support nor workplace protection during that period?

Shweta, 25, the mother of a five-year-old girl, said many women working alongside her in a garment factory in Noida, Uttar Pradesh, could not exclusively breastfeed their children. "Rising inflation and the fact that we work on contracts do not allow us the luxury of taking long breaks," she says.

Dr. Gupta says maternity benefits and breastfeeding support systems, particularly for women employed in the informal sector, need to be strengthened. "For the vast majority working in informal occupations, breastfeeding recommendations often collide with economic reality, and these women, who are most in need of support, are often the least likely to receive it," says Dr. Bansal.

hindu.p@thehindu.co.in



Learn Beyond

# KPR IAS Academy

Institute for IAS, IPS, IFS and TNPSC Exams

No. 5, AKS Nagar, Near Gandhi Park, Coimbatore - 641 001

## GS Paper II – Governance

### **Old wine, new bottle**

**EPFO's recent changes signal continuity, not radical reform**

**T**he Union Labour and Employment Ministry's notification of fresh rules for the Employees' Provident Fund (EPF), Employees' Pension Scheme (EPS), and Employees' Deposit Linked Insurance (EDLI) is a procedural formality following the enforcement of the Code on Social Security, 2020, since November last year. Four months ago, the Central Board of Trustees (CBT) of the Employees' Provident Fund Organisation (EPFO) approved the implementation of social security measures framed as a sequel to the Code that subsumes nine laws, including the Employees' State Insurance Act, 1948, and the Employees' Provident Funds and Miscellaneous Provisions Act, 1952. With around eight crore subscribers, changes to the PF legal framework have wide implications for members and their families. Viewed from this angle, the notification signalled continuity and sought to make the framework align with the Code. Even the feature of PF contributions being made voluntary in excess of the statutory wage ceiling of ₹15,000 is not new. The practice of allowing contributions up to 12% of the basic pay, regardless of the wage ceiling, was the norm till the COVID-19 pandemic hit. It was only then that many establishments, while experiencing the shortage of funds, had begun limiting their contributions to the wage ceiling. However, pensioners and members had hoped that the notification would revise the minimum monthly pension of ₹1,000 and the monthly wage ceiling for contribution to the PF beyond ₹15,000, both of which were determined 12 years ago. But they have been left disappointed. According to the EPFO's 2024-25 annual report, about 36.8 lakh of its 81.5 lakh pensioners receive a monthly pension of ₹1,000 or less.

Yet, the government has taken no decision on either issue despite repeated demands from pensioners and other stakeholders. Even if financial implications are a concern, the government's grant-in-aid for the minimum pension, benefiting about 20.6 lakh pensioners, is only around ₹1,000 crore annually. Of the government's outlay of ₹11,000-odd crore towards the EPS for the current year, most of its provision goes for the component of its contribution at 1.16% of the monthly pay (limited to the wage ceiling of ₹15,000) of EPS members. The government should restore the applicability of the EPS to all workers, regardless of pay. If the government feels that the EPFO is getting overburdened with its work, it can formulate a tailored scheme with the Pension Fund Regulatory and Development Authority. Efforts to expedite and simplify claim settlements should continue. The government must remember that substantive EPFO decisions affect crores of employees.

CM



### GS Paper II – Polity

#### KEYWORD

# The Declaration of Independence and the making of universal rights

Written to justify the American colonies' break from Britain, Declaration of Independence has inspired revolutions, independence movements and the modern human rights framework; its universal language of liberty and equality outlives the contradictions of its own creation

Prathmesh Kher

**I**n September 2, 1945, in Hanoi's Ba Dinh Square, Ho Chi Minh stood before a crowd of hundreds of thousands of people to proclaim the independence of the Democratic Republic of Vietnam. He was a committed Marxist-Leninist, a founding member of the French Communist Party, and the leader of a revolution the United States would spend the next two decades trying to defeat. He did not open with Marx. He did not open with Lenin. He opened with Jefferson: "All men are created equal. They are endowed by their Creator with certain inalienable rights, among them are Life, Liberty, and the pursuit of Happiness. This inalienable right was made in the Declaration of Independence of the United States of America in 1776."

Ho believed the Declaration meant what it said and that if it meant what it said, it had to apply to Vietnam. The United States spent thirty years demonstrating that it did not agree.

To understand why a Vietnamese communist reached for an 18th-century American document at the founding moment of his republic, one must understand what that document actually was: where it came from, what it cost to produce, and what, precisely, it said.

**A rough draft of history**  
In June 1776, Thomas Jefferson, 33, sat at a portable writing desk in a rented room in Philadelphia and drafted what the Second Continental Congress had commissioned. He later said he "turned to neither book nor pamphlet while writing it," drawing only on what he called "the common sense of the subject." The resulting document went through 86 changes before adoption: 47 from John Adams and Benjamin Franklin, 39 from Congress during debate on July 3 and 4. The final text was adopted on the afternoon of July 4. Formal signing began on August 2.

The most important change was a deletion. Jefferson had included a paragraph indicting King George III for perpetrating the Atlantic slave trade, calling it "a cruel war against human nature itself, violating its most sacred rights of life and liberty in the persons of a distant people." Congress cut it entirely, reportedly at the insistence of South Carolina, Georgia, and northern delegates whose constituents profited from the trade. What replaced it was a vague reference to the King making "domestic insurrections" among the colonists, which recast enslaved people as a threat rather than victims. The Declaration's claim that "all men are created equal" was left to stand without any acknowledgment of the 5,000,000 people held in bondage in the colonies that signed it. Jefferson called the changes "translations" and kept private copies of his original draft to document what had been lost.

A subtler but significant change was in the preamble. Jefferson had written: "We hold these truths to be sacred & undeniable." Someone, most likely Franklin, changed it to "self-evident." The revision moved the argument from religious authority to rational logic and made the document considerably harder to dismiss without first engaging the logic of nature on their own terms.

#### First principles

The Declaration's core propositions came



People watch fireworks explode during the Independence Day Celebrations in South Gate, California.

primarily from John Locke's Two Treatises of Government (1689): natural rights precede government; government derives its legitimacy from the consent of the governed; when a government systematically violates those rights, the people may overthrow it. Jefferson borrowed this framework wholesale but made one consequential substitution. Locke's three natural rights were life, liberty, and property. Jefferson changed the third to "the pursuit of happiness."

Property is a legal category with defined contents. The pursuit of happiness is an open-ended aspiration that every subsequent generation has filled with different content: economic freedom, personal autonomy, religious practice, and the welfare state. That elasticity has become the document's most durable feature.

The Virginia Declaration of Rights, drafted by George Mason and adopted June 12, 1776, weeks before Jefferson began writing, had already declared that "all men are by nature equally free and independent, and have certain inherent rights." Jefferson knew it intimately and drew on it directly. Thomas Paine's Common Sense, published in January 1776, had made similar arguments in the popular idiom that shaped the mood. Jefferson then addressed in a more formal register. The Scottish philosopher Francis Hutcheson had argued that certain moral truths were felt directly by any rational person without philosophical demonstration, which is the epistemological basis for calling truths "self-evident." What Jefferson did was synthesize an existing tradition into a document designed to justify revolution to an international audience, under deadline, with a specific political purpose.

#### Historical innovations

Magna Carta (1215) and the English Bill of Rights (1689) framed rights as concessions from a sovereign to subjects; grants from above, which could in principle be revoked by the same authority that issued them. The Declaration grounded rights in the fact of being human, prior to any government and independent of any sovereign's generosity.

More distinctively, it addressed itself not to subjects within an existing constitutional order but to "the Powers of

the Earth," asserting the right to constitute a new political order from scratch. The right to revolution followed as a logical consequence of the premise. If governments exist to secure natural rights, and a government instead systematically destroys them, the people are not merely permitted but obligated to act. The argument moves like a syllogism. That formal clarity is part of what made the document so portable across political traditions that had nothing else in common. Thirty-five American state constitutions contain the same or similar provisions on the right of revolution as in the Declaration's preamble, and comparable language appears in the constitutions of France (1793), Texas, Pennsylvania, and Tennessee, among others.

The Declaration also preserved what might be called the audit model of political accountability. Its long middle section lists 27 specific grievances against George III, first listing 10 like a prosecutor's indictment. Jefferson opens the charges: "The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid World." The grievances that follow are concrete and particular: quartering troops among the civilian population, allowing British soldiers who murdered colonists to face trial in England rather than in the colonies, cutting off colonial trade with the rest of the world, taxing the colonists without their consent, and depriving them of trial by jury through the use of Admiralty courts. Other charges struck at self-governance itself: royal governors had suspended colonial legislatures and replaced statute law with royal proclamations in New York, Virginia, Georgia, and South Carolina. The final counts escalated the indictment from civil abuse to open warfare, accusing the King of having "plundered our seas, ravaged our Coasts, burnt our towns, and destroyed the lives of our people," and of deploying Hessian mercenaries "in complete the works of death, desolation, and tyranny." The implication running through all 27 counts is that a government's conduct can be itemized,

documented, and judged against a standard. Every constitutional system that enumerates rights and governmental obligations inherits this structure.

#### A grammar for liberty

Karl Marx, writing in 1864 on behalf of the First International to congratulate Abraham Lincoln on his reelection, turned the Declaration directly, calling it "the first Declaration of the Rights of Man" and identifying it as the event that had given "the first impulse to the European revolution of the eighteenth century." He designated the document as the origin point of an entire historical era and argued that the working class would finish what 1776 had begun.

Twelve years earlier, on July 5, 1852, Frederick Douglass perhaps explained the phenomenon of the Declaration more keenly than anyone else. Born into slavery, self-educated, and by then the most prominent Black abolitionist in America, he stood before a crowd of around 600 people in Rochester, New York, invited to speak on the Independence Day of the United States of America. His speech, "What is the Slave to the Fourth of July?", is one of the most deliberate engagements with the Declaration in American history:

"I have said that the Declaration of Independence is the ring-bolt to the chain of your nation's destiny; ay, indeed, I repeat it. The principles contained in that instrument are saving principles. Stand by those principles, be true to them on all occasions, in all places, under all tests, and at whatever cost."

Then he turned: "This Fourth of July is yours, not mine. You may rejoice, I must mourn." Douglass's argument was not that the Declaration had failed but that its inheritors had.

The Universal Declaration of Human Rights, adopted on December 10, 1948, by 48 nations with no dissenting votes, carries the architecture of Jefferson's preamble into international law: rights that are inherent, that precede states, and that no authority can grant or revoke. Its preamble opens with "recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family."

#### Unfinished business

Jefferson owned over 600 people at the time he wrote that all men are created equal. The document he produced was, at its core, a lawyer's argument for a political purpose: to justify, to an international audience, the decision of thirteen colonies to break from Britain. Its universalist language was a rhetorical instrument, not a program.

What it became is something else. The deletion of the slavery paragraph did not bury the contradiction; it drove it into the text's foundation, where it sat under the pressure of "all men are created equal" for many years.

The shift from "sacred and undeniable" to "self-evident" planted the argument on rational ground where it could not be closed by authority or tradition, only by reason. Each of these changes, deliberate or incidental, made the document harder to contain. Jefferson died on July 4, 1826, fifty years to the day after the Declaration's adoption. Weeks before his death, he wrote that he hoped it would prove "an instrument... pregnant with our own and the fate of the world."



Learn Beyond

# KPR IAS Academy

Institute for IAS, IPS, IFS and TNPSC Exams

No. 5, AKS Nagar, Near Gandhi Park, Coimbatore - 641 001

## GS Paper II – Polity

### Modi hails Syama Prasad Mookerjee as ‘champion of national unity’

**The Hindu Bureau**  
NEW DELHI

Prime Minister Narendra Modi on Monday said the life of Syama Prasad Mookerjee, founder of the Bharatiya Jana Sangh, exemplified unwavering nationalism, public service, and dedication to the country's unity and development, adding that his ideals remain relevant even today.

Paying tribute to Mookerjee on his 125th birth anniversary in an op-ed article titled "A life devoted to India's unity and progress", Mr. Modi lauded him as a leader who combined intellectual achievement and integrity.

Quoting Mookerjee's call to the youth to do every task thoroughly and to the best of their ability, Mr. Modi said that as India moves towards the goal of Viksit Bharat, the greatest tribute to him would be to

strive continuously to build a strong, united, self-confident, and compassionate India. "And knowing today's youth, I am certain they will rise to the occasion and do exactly that," he said.

#### A life of sacrifice

Despite coming from a privileged background – his father was among the foremost educationists and intellectuals of his time – Mookerjee's conscience led him towards a life of sacrifice, public service, and national causes, Mr. Modi said. He could not remain a mute spectator to the turbulence of his times, be it "fighting colonialism, communalism, humanitarian challenges and more".

"Along this journey, he endured profound personal tragedies, including the loss of an infant child and, later, his wife... Yet, these tragedies only deepened his resolve and streng-



An artist giving final touches to a bust of Bharatiya Jana Sangh founder Syama Prasad Mookerjee, in Kolkata on Sunday. ANI

thened his unwavering commitment to serve," the Prime Minister said.

A champion of national unity, Mookerjee stood firm during the Partition to ensure that West Bengal remained an integral part of India, Mr. Modi said. "A few years later, that very conviction drew him to Jammu and Kashmir. Imprisonment did not deter him and isolation did not

diminish him. His life came to an abrupt end in detention, far from the countless people whose cause he had made his own," he added.

"Acharya Vinoba Bhave said that Dr. Mookerjee sacrificed himself for a cause in which he had faith. Years later, the revocation of Articles 370 and 35A in 2019 was the most fitting tribute to his martyrdom,"

the Prime Minister said.

As the youngest Vice-Chancellor of the University of Calcutta, Mookerjee brought a range of "patriotic and futuristic" changes, in the spirit of "India First".

#### 'Alternative voice'

At a time when the Congress was "omnipresent", Mr. Modi said, Mookerjee founded the Bharatiya Jana Sangh in 1951 as "an alternative voice to speak up for India's progress while staying attached to our cultural roots".

His tenure as India's first Minister for Industry and Supply displayed his conception of comprehensive and humane development. He viewed industry as a means of restoring dignity, opportunity, and confidence to a newly independent country, and respected wealth creation and value addition, Mr. Modi said.

While laying the foundations of modern industrial India via initiatives such as the Damodar Valley Corporation and the Sindri Fertilizer Plant, he ensured that the country's traditional strengths such as handlooms, cottage industries, artisans, and textile workers were given equal importance.

"The Sindri plant, which Dr. Mookerjee worked to establish with a clear vision of self-reliance, was ignored by those who ran the nation for several decades. I feel honoured that our government had the opportunity to contribute to its revival," he said.

He said Mookerjee embodied India's civilizational tradition, the democratic spirit of dialogue and discussions.

"He joined Pandit Nehru's Cabinet, believing that the task of nation-building in the early years transcended political differenc-

es... But when he felt that questions of national importance demanded a different course, he relinquished office with dignity and devoted himself wholeheartedly to the political work he believed the nation required," he said.

#### Staunch critic

Termining the First Amendment to the Constitution brought by Nehru as a "direct assault on free speech", the Prime Minister said Mookerjee was among its "staunchest critics".

"He understood fully what the Congress was capable of doing. And he was proven right. Those who brought the First Amendment 75 years ago imposed the Emergency in 1975 and 50 years ago, brought in the 42nd Amendment Act, which again struck at the core of liberal democratic values," Mr. Modi said.

## GS Paper II – International Relations

### India to host BRICS anti-drugs meet today

**The Hindu Bureau**  
NEW DELHI

India will host the two-day BRICS Heads of Anti-Drug Agencies meeting in Guwahati from Monday.

Organised by the Narcotics Control Bureau, the meeting will focus on issues such as combating synthetic drugs, strengthening intelligence sharing and operational coordination, and capacity building and institutional cooperation.

"India envisions this meeting as a pivotal step in transforming BRICS cooperation from dialogue-centric engagement to structured and action-oriented collaboration, with a focus on strengthening operational coordination, intelligence sharing, capacity building, and collective responses to emerging drug-related threats," the Union Home Ministry said in a statement.

"As chair, New Delhi will seek to strengthen cooperation through information sharing on clandestine laboratories and emerging synthetic drug trends, enhanced monitoring of precursor chemicals and pharmaceuticals, intelligence exchange, sharing of best practices, joint training programmes and expert exchanges," it said.



Learn Beyond

## GS Paper III – Economy

# Emergency gas curbs eased as LNG shipments normalise

**Press Trust of India**

NEW DELHI

The Union government has withdrawn most provisions of an emergency natural gas supply regulation order following the resumption of liquefied natural gas (LNG) shipments through the Strait of Hormuz.

In a notification issued on Saturday, the Ministry of Petroleum and Natural Gas amended the Natural Gas (Supply Regulation) Order, 2026, omitting key operational provisions which led to all domestically produced natural gas and imported LNG to be sold as per a priority customer list drawn by the government. The original order, issued on March 9 under the Essential Commodities Act, was brought in after the conflict in West Asia disrupted LNG shipments, with suppliers invoking *force majeure* and diverting cargoes to priority consumers.

## Restored flow

The gas supply curbs were one of three emergency measures the govt. introduced after energy supplies from the Gulf were threatened by the effective closure of the Strait of Hormuz

- Natural Gas (Supply Regulation) Order, 2026 was brought in on March 9 with suppliers invoking *force majeure* and diverting cargoes to priority consumers
- Latest amendment omits operational provisions for LNG to be sold as per a new priority customer list drawn by the government from the order
- The other two measures — diverting feedstock to maximise LPG production and restricting bulk sale of diesel — have already been withdrawn



The Ministry said the situation has since improved, with a ceasefire in place, further negotiations under way, and traffic through the Strait of Hormuz resuming.

### Emergency measures

The gas supply curbs were one of three emergency measures the government introduced after energy supplies from the Gulf were threatened by the closure of the Strait of Hor-

muz after the crisis broke out with U.S.- Israeli strike on Iran in February.

The other two measures — directing refiners to maximise LPG production by diverting feedstock from petrochemicals and restricting diesel sales to bulk consumers — have already been withdrawn as the supply situation normalised.

**CONTINUED ON**  
**» PAGE 10**



## GS Paper III – Environment

# India needs a second home for Asiatic lions

India's conservation of the Asiatic lion is widely celebrated as a remarkable success story. From a population which was reduced to just a few dozen in the early 20th century, the number of Asiatic lions has increased to approx. 891 today. Yet, behind this achievement lies a persistent policy failure: the inability to establish a second, geographically separate population. Scientific institutions, government bodies, and even the Supreme Court have long warned that without such a step, the species remains vulnerable to extinction from a single catastrophic event.

### A second dwelling

The need for a second home for Asiatic lions is rooted in decades of government-backed research. Multiple reports of the Wildlife Institute of India have consistently emphasised that a single population confined to one landscape is inherently vulnerable. Studies conducted since the 1980s have concluded that threats such as epidemics, forest fires, or other natural disasters could potentially wipe out the entire species if it remains geographically concentrated.

This scientific consensus was formally acknowledged in the landmark Supreme Court judgment of April 15, 2013, which directed the translocation of Asiatic lions from Gujarat's Gir forest to the Kuno National Park in Madhya Pradesh. The Court made it clear that conservation must be guided by ecological principles rather than regional considerations, stating that a second population was essential for the species' long-term survival. The judgment explicitly recognised the risk that a single calamity could eliminate the entire population if it remained confined to one location.

Despite this clear directive, the translocation project has been stalled for over a decade. Gujarat has consistently resisted the relocation of lions outside the



**Richa Singh**

Senior Consultant at EY India, with a focus on forest management, wildlife conservation and biodiversity assessment

Reports by the Wildlife Institute of India have consistently emphasised that a single population confined to one landscape is inherently vulnerable



An Asiatic lioness with her two cubs at the Sakkaraugh Safari breeding centre in Junagadh in 2025. VIJAY SONEJI

State, citing its success in conserving the species and raising concerns about habitat suitability elsewhere. This has created a policy impasse between scientific recommendations, judicial mandates, and State-level political considerations. While the Kuno National Park was prepared specifically to host the lions – by relocation of villages and habitat restoration among others – no lions have been introduced there.

Meanwhile, the ecological risks identified by experts have only intensified. The concentration of the entire global population of Asiatic lions within the Gir landscape makes them uniquely vulnerable to disease outbreaks. The 2018 outbreak of the Canine Distemper Virus among the population, which killed several lions and infected many others, serves as a stark reminder of this danger. Such diseases spread more rapidly in dense, socially structured populations, and their impact is amplified by the limited genetic diversity of the lions.

Government-supported studies and conservation plans have repeatedly highlighted that geographically isolated carnivore populations face extinction risks from both biological and environmental factors. In a single-site population, even non-recurring events – such as droughts, wildfires, or sudden prey decline – can have disproportionate effects. This is why conservation science advocates for a “metapopulation

approach”, where species are distributed across multiple habitats to reduce risk.

Recognising these concerns, recent policy initiatives such as Project Lion (2020) have attempted to revive the discussion on expanding lion habitats. There have been proposals to develop alternative sites such as the Barda Wildlife Sanctuary within Gujarat itself. However, experts argue that such sites, being geographically close to Gir, may not adequately address the core issue of risk diversification. A second population must be sufficiently distant to prevent the spread of disease or disaster across both populations simultaneously.

The delay in establishing a second home raises broader questions about environmental governance in India. It reflects a tension between national conservation priorities and State-level interests, where wildlife – though constitutionally recognised as a shared responsibility – can become entangled in regional identity and political considerations. The Supreme Court had clearly stated that Asiatic lions are a national heritage, not the property of any single State, yet implementation of this principle remains incomplete.

### From success to security

Ultimately, the issue is whether India is willing to move from conservation success to conservation security. The current situation represents a paradox: a thriving population that remains ecologically fragile. Without establishing a second free-ranging population, the gains of decades of conservation effort remain vulnerable to reversal. The case of the Asiatic lion underscores a fundamental principle of modern conservation: numbers alone do not ensure survival; resilience does. Creating a second home is an ecological necessity; continued delay in implementing this vision risks turning a global conservation triumph into a preventable ecological vulnerability.

+



Learn Beyond

# KPR IAS Academy

Institute for IAS, IPS, IFS and TNPSC Exams

No. 5, AKS Nagar, Near Gandhi Park, Coimbatore - 641 001

## GS Paper III – Economy

# The real crisis in India's fisheries

Official claims that most of India's marine fish stocks are sustainable should not distract from the continuing degradation of the country's inshore fishing grounds; stronger governance of coastal waters and better management of mechanised trawling are essential for truly sustainable fisheries

### FULL CONTEXT

Maarten Stavins

India has a very large and old marine fishing population. Every day, both small-scale and mechanised trawl fishers go out to earn a living and provide the nation with food.

The Government of India recently released its latest prognosis of the country's ocean fisheries (February 11, 2020). In press release emphasised that Indian marine fisheries are largely sustainable, suggesting the country has avoided the fate of international fishing, namely overfishing.

#### Official claims

Drawing on figures compiled by the Central Marine Fisheries Research Institute (CMFRI), the government said that most commercial fish stocks "are in good health". Furthermore, it stated that "91.5% of the 135 fish stocks evaluated in different regions during 2022 were found sustainable." If this assessment is accurate, it would be good news. However, there are good reasons to doubt whether it is indeed correct.

For one, the Food and Agriculture Organization (FAO) is far more reserved in its assessment of the condition of Indian marine fisheries than the Indian government seems to be. India's country profile argues that "India's marine fisheries production reached a plateau as most major stocks are fully exploited. [...] Unregulated access to these fisheries resulted in significant overcapacity, especially of trawlers and small trawlers that compete over dwindling fishery resources with mostly impoverished small-scale fishers." This message is not held as buoyant as the one published by the Indian government.

I will not dispute CMFRI's conclusions or its methodology for calculating 'sustainability'. After all, most of its procedures are vetted in secrecy. What is known, however, is that compared with many other fishing nations, CMFRI continues to rely primarily on landing data rather than stock assessments.

In other words, it calculates the availability of fish stocks in India's Exclusive Economic Zone (EEZ) – which includes up to 200 nautical miles (371 km) of sea area around the country – based on what fishermen catch. Even a layperson can understand that finding a certain number of shells on the beach does not necessarily predict the quantity of shells in the sea.

Other nations, therefore, make use of stock assessments at sea itself, thereby calculating how much aquatic life is available at certain waters. This is obviously the more reliable method to determine the health of fish stocks.

The Government of India cannot be blamed for not yet adopting this more costly form of stock assessment. But it does raise suspicions that the race to catch up with China, which is also infecting the fisheries sector, may also be inducing a hidden bias in the figures.

#### The decline of inshore ecosystems

Among the fishers I have spoken to over thirty years along the Tamil Nadu coast, the consensus is that catches have consistently gone down and that many species that were formerly available have disappeared. The government, however, seems to continue on the path of amplifying fish production figures from one year to the next.



GETTY IMAGES

Overfishing, however, is not the central issue here. The more pressing concern is the decline, if not the destruction, of the inshore benthic environment. Over the past year, numerous fisheries scientists and policymakers have described the inshore fishing environment as "destroyed". What exactly do they mean? India is surrounded by a relatively narrow continental shelf, where fishing is always the most productive. This continental shelf is broadest in Gujarat and a part of Maharashtra, but remains quite narrow along the rest of the sub-continent.

Generally speaking, one can assume that the territorial seas – a legal category referring to waters that lie within 12 nautical miles (or 22 km) from shore – largely overlap with the continental shelf. These waters provide favourable ecological conditions for commercially valuable species such as shrimp to feed, breed and grow.

But why do senior experts conclude this is no longer the case?

This is a complex question with many answers. Thus, one can point to the construction of dams in major rivers, which disallow land-based nutrients from entering the sea. One can also point to the ongoing destruction of mangroves, where fish breed, and to pollution that is entering the sea from various industrial, agricultural, and urbanising sources.

Many scientists, and fishers too, point to such changes to explain the decline of fisheries. These factors obviously affect the inshore fishing zone more than they do distant waters.

#### Mechanised trawling and its cost

One of the many factors contributing to this decline is the dramatic and largely uncontrolled expansion of mechanised trawling.

It is good to remind ourselves first of all that semi-industrial trawling is not an Indian fishing method. It was introduced from abroad around 1960 and has since

expanded to gigantic proportions.

According to the same government press release, India now has 64,404 mechanised fishing vessels. These numbers are growing day by day as there are practically no restrictions on new entries. Moreover, existing vessels are continuously being extended and fitted with more powerful Chinese engines, enabling them to catch even more fish.

This oversized fleet of mechanised trawlers ploughs the inshore seabed in a continuous fashion. In heavily trawled areas, this results in a decline of all animal and plant life. It has also resulted in major conflicts with the numerous population of small-scale fishers who see their livelihoods imperilled. The problem is that regulations to protect the inshore fishing zone are almost non-existent. Yes, mechanised boat fishing is closed for two months every year, so as to allow for the rejuvenation of fish stocks. But the main tool to prevent unwanted trawling – the prohibition for mechanised boat fishers to operate within a geographic zone of 5 NM – lacks enforcement.

There are two main reasons for this. First, coastal States lack sufficient staff or craft to patrol the inshore waters. Second, governments have precluded fishers from playing a helpful role in management. The result is that the ecology of the inshore fishing zone is continuously being degraded, and all fishers – small-scale and mechanised – are being pushed out to the offshore and the deep-sea fishing zones.

#### Rethinking fisheries policy

The Indian government is optimistic about the potential of deep-sea fishing and is encouraging fishers to make a shift. But the question is whether that potential, which is also being tapped by other fishing nations, is as beneficial as expected. The FAO estimates that "at best, only a marginal increase can be realised through exploitation of deep-sea resources."

### THE GIST

Food and Agriculture Organisation presents a more cautious assessment of India's marine fisheries than official claims, warning that many major fish stocks are already fully exploited.

India's fish stock estimates rely largely on landing data rather than direct stock assessment, raising questions about how sustainability is measured.

Expanding mechanised trawling and weak enforcement of coastal fishing regulations are placing increasing pressure on inshore ecosystems and small-scale fishers.



Learn Beyond

# KPR IAS Academy

Institute for IAS, IPS, IFS and TNPSC Exams

No. 5, AKS Nagar, Near Gandhi Park, Coimbatore - 641 001

## GS Paper III – Science & Technology

# ISRO conducts test of key component for Gaganyaan mission

The solid motor-based platform SOLVE will be used for parachute tests of the crew module; it has been derived from the PSLV strap-on motor

**The Hindu Bureau**  
BENGALURU

**T**he Indian Space Research Organisation (ISRO) has successfully carried out the first ground test of the solid motor-based Sub-Orbital Launch Vehicle for Experiments (SOLVE) at its Static Test Facility at the Satish Dhawan Space Centre in Sriharikota.

The SOLVE solid motor is a key component for conducting Gaganyaan test missions and the first ground test was carried out on July 3.

The ISRO is developing a solid motor-based SOLVE as a test platform to carry out Integrated Parachute Tests for validation of deceleration system of Gaganyaan's crew module under various test conditions.

During these test missions, the crew module will be carried to an altitude of 10 km to 17 km and separated from the vehicle.

A series of 10 parachutes will be deployed to reduce the velocity of the crew module before splashdown in the sea.



The ground test of the SOLVE solid motor being conducted at the Satish Dhawan Space Centre in Sriharikota. SPECIAL ARRANGEMENT

The solid stage of SOLVE is derived from the Polar Satellite Launch Vehicle (PSLV) Strap-on Motor with a few modifications to meet the Gaganyaan test requirements, including development of slow burn rate propellant and straight nozzle with secondary injection thrust vector control.

The ISRO said that during the test motor performance parameters were as expected. "The development of the SOLVE vehicle provides flexibility in conducting Gaganyaan test missions simulating va-

rious conditions in the actual mission," the space agency said.

Over the past few months, the ISRO has carried out key tests related to the Gaganyaan mission, which include the second Integrated Air Drop Test (IADT-02) and a behavioural study Mission MITRA (Mapping of Interoperable Traits and Response Assessment) in Leh, during which the four Indian astronauts selected for the mission along with scientists, engineers and medical teams were subjected to a week-long study.



Learn Beyond

## GS Paper III – Science & Technology

WHAT IS IT?

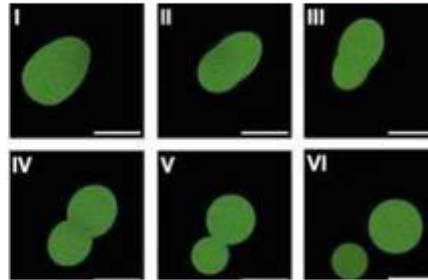
### Synthetic cell: machine that could

**Vasudevan Mukunth**

**R**esearchers from the University of Minnesota have developed a synthetic cell that can grow and divide. The team 'started' the cell as a liposome, a small bubble made of fats. Inside was a protein-making system called PURE, which contained all the necessary 'machinery' for the cell to turn DNA into proteins. The DNA consisted of 90,000 base pairs.

The synthetic cells ate by fusing with smaller feeder liposomes. The cell's DNA instructed it to produce a protein called alpha-hemolysin that becomes like a hook on the cell's surface. The hook grabbed the feeder bubbles and pulled them in, providing the lipids and nutrients the cell needs to expand.

As the cell grew, it used an enzyme called Phi29 to copy its entire genome, then it divided into daughter cells. While the researchers first used mechanical force to split the cells, they eventually engineered a biological way to do it. By making proteins crowd the surface of the cell, they created enough physical pressure to make the membrane split into two. The researchers also proved these cells could undergo selection. They introduced a mutation that



Once the cell grew and copied its DNA, it divided into daughter cells. KATE ADAMALA, ADAMALA LAB

allowed some cells to eat more efficiently. These faster-growing cells produced more offspring than others and dominated the population. "It will, perhaps, provide a compelling argument against those who think there is some immaterial substance in addition to the chemicals that breathes life into material stuff," University of Exeter professor John Dupré told *The Guardian*. "But almost no scientist now believes this."

**For feedback and suggestions**  
for 'Science', please write to  
[science@thehindu.co.in](mailto:science@thehindu.co.in) with the  
subject 'Daily page'



Learn Beyond

# KPR IAS Academy

Institute for IAS, IPS, IFS and TNPSC Exams

No. 5, AKS Nagar, Near Gandhi Park, Coimbatore - 641 001

## GS Paper III – Environment

# Milk production in Gangetic plains has nosedived due to climate change

A new study has found that global warming acutely affects dairy production across the Global South, especially the high milk production tract of Haryana as lactating animals are more prone to heat stress; hence, they divert energy from milk production to regulate body temperature, resulting in a 20-30% decline in milk yield

Divya Gandhi  
BENGALURU

**A** massive decline in bovine milk production in India, especially among buffaloes in the trans-Gangetic plains of northwestern India – one of the country's biggest sources of milk – has now been attributed to climate change. The phenomenon has a profound impact on the milk industry that caters to consumers every day.

While climate change significantly undermines livestock productivity worldwide, a new study published in *Scientific Reports* has found that global warming acutely affects dairy production across the Global South, especially "the high milk production tract of Haryana."

India is the world's largest milk producer. Scientists studied data to assess the impact of climatic variables – including yearly minimum, maximum, and mean temperatures, heavy rainfall, temperature-humidity index – and evapotranspiration on milk yield and production in buffaloes, indigenous cattle, and cross-bred cattle in Haryana, spanning over a decade, from 2004 to 2019.

They studied livestock populations across 1,148 villages, which included 4.66 million cross-bred cattle, 2.86 million indigenous cattle and 35.56 million buffaloes.

The study documented milk yield in these three bovine categories and found that high temperatures (over 38 degrees Celsius), in combination with high humidity (over 70%) during July and August (summer and monsoon when humidity peaks) "significantly reduce milk production." Interestingly, temperatures in winters had a negligible effect.

### Adaptive strategies

Critically, evapotranspiration in May and June was an important factor, as was the temperature-humidity index and heatwaves. Solar radiation, ambient temperature, and vapour pressure were part of the climate impact assessments. In light of the fact that agrarian livelihoods are likely to be affected profoundly with global warming, "these results underscore [potential evapotranspiration's] role in shaping adaptive strategies for sustainable livestock production," the paper said. Buffaloes, with their darker hue and bare skin are particularly vulnerable to absorb solar radiation. They also have fewer sweat glands than cattle; so, a unit increase in potential evapotranspiration (mm/day) reduces milk yield by around 1.4 litres per buffalo per day, the paper says.

Likewise, cross-bred cattle showed a significant decline in productivity during heatwaves too; but not indigenous cattle breeds such as Sahiwal and Haryana, perhaps because of their adaptation, such as loose skin, efficient sweating and lower metabolic heat production.

The higher the temperature-humidity



Beyond the direct impact of climate change on the health of the cattle, increasing temperatures are also affecting the broader dairy production system, like reduced production and availability of fodder and feed, increasing water scarcity and raising instances of pest and disease attacks. SHIKHAR/PIUSHPAKAR

index the greater is the impact on livestock physiology and productivity: they eat less, and the heat triggers homeostatic responses "in the form of panting, sweating and reduced activity," the paper said.

The stress hormones and raised cortisol levels "impairs milk ejection and thereby causes a drop in milk yield and, in severe cases, livestock mortality," says the paper.

### Indigenous cattle

Fodder also becomes a casualty of rising surface temperature, affecting the livestock production system: changes are triggered in the quantity, quality and seasonal availability of feed and fodder.

The paper estimates that such stressors in India lead to a loss of 3.2 million tonnes of milk, which is worth ₹2,661 crore in monetary losses that could rise to 15 million tonnes by 2050s.

Abhinav Gaurav, lead advisor for sustainable dairy at Environmental Defense Fund India, a Delhi-based non-profit, told *The Hindu* that heat stress has a significant impact on the milk productivity, health, and well-being of cattle and buffaloes.

"During the intense summer months, the lactating animals are more vulnerable to heat stress, given that animals divert energy from milk production to regulate body temperature, resulting in a 20-30% decline in milk yield."

Beyond the direct impact of climate change on animals' health, production and wellbeing, increasing temperatures and prolonged summers are also affecting the broader dairy production system, like reduced production and availability of fodder and feed, increasing water scarcity, raising instances of pest and



Given that India is the largest milk producer and consumer of the world, these production losses will put the livelihoods and nutrition of millions at risk

ABHINAV GAURAV  
Lead advisor at Environmental Defense Fund India

disease attacks and compromised animal immune system.

Dr. Gaurav quoted a report in *The Lancet* that estimates that climate change-induced temperature rise can reduce Indian milk production by 25% by 2085.

"Given that India is the largest milk producer and consumer of the world, these production losses will put the livelihoods and nutrition of millions at risk, especially the 80 million smallholder dairy farmers who contribute 85% of the total milk production," he said.

Haryana's farmers, interestingly, "were not only well aware of... technologies and practices but implemented them in the summer season (provided wallowing ponds to buffalo, agroforestry, keeping livestock in shed, alteration of microclimate via sprinklers, foggers, mist, etc., feeding management), and reduced the negative effects of the extremes [of] summer months," the paper, which was authored by researchers from the ICAR-National Dairy Research Institute and other collaborating institutions, concluded.

### Traits to tolerate heat

Indigenous cattle are more tolerant to heat stress, and maintain homeostasis

### THE GIST

The study documented milk yield in three bovine categories and found that high temperatures, in combination with high humidity during July and August "significantly reduced milk production"

It found that indigenous cattle were more tolerant to heat stress, and maintained homeostasis, with more advanced evaporative cooling compared to buffaloes

The text concluded that indigenous breeds should be conserved as "reservoirs of climate-resilient traits," and policies must prioritise in-situ conservation and farmer-led breed improvement programmes

(that is, they are better at regulating their internal environment), with more advanced evaporative cooling compared to buffaloes. Besides, "indigenous breeds show stronger immunity against local parasites and pathogens. This resilience indirectly supports climate tolerance, since heat stress often compromises immune function," the authors wrote.

The National Bureau of Animal Genetic Resources has identified heat-tolerance traits in cattle, such as heat shock proteins, coat colour, and hair characteristics, said Dr. Gaurav.

And the research showed that the Sahiwal breed of cattle is significantly more heat-tolerant than exotic breeds with comparable milk productivity.

"The findings underscore the need for a strategic shift toward resilience oriented livestock management. We recommend the integration of potential evapotranspiration and temperature-humidity index ... into regional early warning systems to allow for proactive management," it added.

"Furthermore, long-term climate resilience should prioritise thermo-tolerant breeding programs that leverage *Bos indicus* traits."

The text concluded that indigenous breeds should be conserved as "reservoirs of climate-resilient traits," and policies must prioritise in-situ conservation and farmer-led breed improvement programmes.

"The larger challenge now lies in scaling these solutions for millions of smallholder farmers, who often face limited awareness, inadequate financial resources, and the absence of a coordinated national climate-smart dairy strategy," Dr. Gaurav said.  
divya.gandhi@thehindu.co.in