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THE HINDU NEWSPAPER

08 JULY 2026

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Centre to refer *Satluj* to inter-departmental panel

The Centre plans to refer the Diljit Dosanjh-starrer *Satluj* to an Inter-Departmental Committee constituted under the IT Rules 2021 for a detailed examination and future course of action, government sources said on Tuesday, two days after streaming platform ZEE5 was directed to take down the film over "security concerns". The film, which details the life of activist Jaswant Singh Khalra in Punjab in the turbulent 1990s when the State was reeling under terrorism, was stuck with the censors for more than three years. Released uncut on ZEE5 on July 3, the film was removed from the platform on July 5.

Khalra in Punjab in the turbulent 1990s when the State was reeling under terrorism, was stuck with the censors for more than three years.



'Bridge Man of India' Girish Bharadwaj passes away

Girish Bharadwaj, who built over 140 hanging footbridges across India, passed away at a hospital at Sullia in Dakshina Kannada district of Karnataka on Tuesday. He was 76. An engineering graduate, he was known for his low-cost bridges. Nearly 120 of the footbridges provided connectivity in rural areas and the rest served the interests of tourists. Popularly called the 'Bridge Man of India', the Union Government honoured him with the Padma Shri in 2017.

लागत वाले पुलों के लिए प्रसिद्ध थे।

- Popularly called the 'Bridge Man of India', the Union Government honoured him with the Padma Shri in 2017. लोकप्रिय रूप से 'भारत के ब्रिज मैन' कहलाने वाले उन्हें केंद्र सरकार ने 2017 में पद्म श्री से सम्मानित किया।

08J7. IDFC First Bank introduces EPFO payment services

आईडीएफसी फर्स्ट बैंक ने EPFO भुगतान सेवाएँ शुरू कीं

- IDFC First Bank has launched provident fund payment services through its integration with the Employees' Provident

08J7. Centre to refer *Satluj* to inter-departmental panel

केंद्र सरकार 'सतलुज' को अंतर-विभागीय समिति के पास भेजेगी

- The Centre plans to refer the Diljit Dosanjh-starrer *Satluj* to an Inter-Departmental Committee constituted under the IT Rules 2021 for a detailed examination and future course of action, government sources said on Tuesday, two days after streaming platform ZEE5 was directed to take down the film over "security concerns".

केंद्र सरकार दिलजीत दोसांझ अभिनीत सतलुज फिल्म को आईटी नियम 2021 के तहत गठित अंतर-विभागीय समिति के पास विस्तृत जांच और आगे की कार्रवाई के लिए भेजने की योजना बना रही है। सरकारी सूत्रों ने मंगलवार को यह जानकारी दी, जब स्ट्रीमिंग प्लेटफॉर्म ZEE5 को "सुरक्षा संबंधी चिंताओं" के कारण फिल्म हटाने का निर्देश दिए जाने के दो दिन बाद यह फैसला सामने आया।

- The film, which details the life of activist Jaswant Singh Khalra in Punjab in the turbulent 1990s when the State was reeling under terrorism, was stuck with the censors for more than three years.

यह फिल्म कार्यकर्ता जसवंत सिंह खालड़ा के जीवन को दर्शाती है, जब 1990 के दशक में पंजाब आतंकवाद से जूझ रहा था, और यह फिल्म तीन वर्षों से अधिक समय तक सेंसर प्रक्रिया में अटकी रही।

08J7. 'Bridge Man of India' Girish Bharadwaj passes away

'भारत के ब्रिज मैन' गिरिश भारद्वाज का निधन

- Girish Bharadwaj, who built over 140 hanging footbridges across India, passed away at a hospital at Sullia in Dakshina Kannada district of Karnataka on Tuesday.

गिरिश भारद्वाज, जिन्होंने पूरे भारत में 140 से अधिक झूलते पैदल पुल बनाए, उनका मंगलवार को कर्नाटक के दक्षिण कन्नड़ जिले के सुल्लिया स्थित एक अस्पताल में निधन हो गया।

- An engineering graduate, he was known for his low-cost bridges.

वह इंजीनियरिंग स्नातक थे और अपने कम



IDFC First Bank introduces EPFO payment services

IDFC First Bank has launched provident fund payment services through its integration with the Employees' Provident Fund Organisation (EPFO), under the Ministry of Labour and Employment. The integration enables establishments to initiate PF payments directly through the EPFO portal and complete transactions via IDFC FIRST Bank's Retail and Corporate Internet Banking platforms, the private sector lender said in a statement on Tuesday.



Fund Organisation (EPFO), under the Ministry of Labour and Employment.

IDFC First Bank ने श्रम एवं रोजगार मंत्रालय के अंतर्गत कर्मचारी भविष्य निधि संगठन (EPFO) के साथ एकीकरण के माध्यम से भविष्य निधि भुगतान सेवाएँ शुरू की हैं।

- The integration enables establishments to initiate PF payments directly through the EPFO portal and complete transactions via IDFC FIRST Bank's Retail and Corporate Internet Banking platforms, the private sector lender said in a statement on Tuesday.
- इस एकीकरण से प्रतिष्ठान सीधे EPFO पोर्टल के माध्यम से PF भुगतान शुरू कर सकते हैं और IDFC FIRST Bank के रिटेल एवं कॉर्पोरेट इंटरनेट बैंकिंग प्लेटफॉर्म के जरिए लेन-देन पूरा कर सकते हैं। निजी क्षेत्र के इस बैंक ने मंगलवार को जारी एक बयान में यह जानकारी दी।

PCS

IOC provisionally lifts ban on Russian Olympic Committee

The International Olympic Committee provisionally lifted its suspension of the Russian Olympic Committee on Tuesday, a step towards the country's return to the Olympic fold ahead of the Los Angeles 2028 Games. The IOC said its executive board had lifted the suspension but had not decided yet on whether Russia could display its flag, colours, or have its anthem played at the Games. The ROC was suspended in October 2023 following Russia's invasion of Ukraine.

08J7. IOC provisionally lifts ban on Russian Olympic Committee

आईओसी ने रूसी ओलंपिक समिति पर लगा प्रतिबंध अस्थायी रूप से हटाया

- The International Olympic Committee (IOC) provisionally lifted its suspension of the Russian Olympic Committee (ROC) on Tuesday, a step towards the country's return to the Olympic fold ahead of the Los Angeles 2028 Games.

अंतरराष्ट्रीय ओलंपिक समिति (IOC) ने मंगलवार को रूसी ओलंपिक समिति (ROC) पर लगाए गए अपने निलंबन को अस्थायी रूप से हटा दिया,

जो लॉस एंजेलिस 2028 ओलंपिक खेलों से पहले देश की ओलंपिक परिवार में वापसी की दिशा में एक कदम है।

- The IOC said its Executive Board had lifted the suspension but had not decided yet on whether Russia could display its flag, colours, or have its anthem played at the Games. IOC ने कहा कि उसके कार्यकारी बोर्ड ने निलंबन हटा दिया है, लेकिन अभी यह निर्णय नहीं लिया है कि रूस खेलों में अपना झंडा, राष्ट्रीय रंग, या अपना राष्ट्रगान प्रदर्शित और बजा सकेगा या नहीं।
- The ROC was suspended in October 2023 following Russia's invasion of Ukraine. रूस द्वारा यूक्रेन पर आक्रमण के बाद अक्टूबर 2023 में रूसी ओलंपिक समिति (ROC) को निलंबित कर दिया गया था।

GS Paper 1: History		08 July 2026
TOPICS COVERED		
08J7	QUIZ	



Questions and answers to the previous day's daily quiz:

1. The **eight Sikh Guru** born in 1656, who would go on to lead the faith at just five years old. **Ans: Guru Har Krishan**

2. Born in 1883, this scholar wrote *Usne Kaha Tha*, one of the earliest modern Hindi short stories. **Ans: Chandradhar Sharma Guleri**

3. An Indian revolutionary, born on this day in 1854, who served as the Prime Minister of the first Provisional Government of India established in Kabul, Afghanistan, during the First World War. **Ans: Mohamed Barakatullah Bhopali**

4. Born on this day in 1914, psychological portrayal.

08J7. QUIZ

1. Guru Har Krishan (1656–1664)

- Guru Har Krishan was born on **7 July 1656** at Kiratpur Sahib in present-day Punjab. He was the younger son of the Seventh Sikh Guru, Guru Har Rai.
- He became the **Eighth Sikh Guru in 1661** at the age of **five**, making him the youngest Guru in Sikh history.
- Death and Legacy:** He contracted smallpox while serving the afflicted and passed away in **1664** at the age of **eight**. His memory is preserved at **Gurdwara Bangla Sahib in Delhi**, one of the most revered Sikh shrines. His life symbolizes selfless service (Seva) and compassion.

2. Chandradhar Sharma Guleri (1883–1922)

- Chandradhar Sharma Guleri was born on **7 July 1883** in Jaipur. He was a distinguished Hindi writer, linguist, historian, Sanskrit scholar, and archaeologist.
- He is best remembered for writing "**Usne Kaha Tha**" (1915), widely regarded as one of the earliest masterpieces of the modern Hindi short story because of its realistic narration, emotional depth, and

3. Mohamed Barakatullah Bhopali (1854–1927)

- During the **First World War**, he became the **Prime Minister of the Provisional Government of India**, established in **Kabul, Afghanistan**, on **1 December 1915** under the presidency of Raja Mahendra Pratap.
- Barakatullah travelled extensively across England, Japan, the United States, and other countries to mobilize international support against British colonial rule.
- He was also associated with the **Ghadar Movement** and promoted India's independence through speeches and publications.

GS Paper 1: Society		08 July 2026
TOPICS COVERED		
08J7	On the method for caste enumeration जाति गणना की पद्धति पर	

On the method for caste enumeration

After decades of debate, caste will be counted as part of the 2027 Census. It is significant to look at the ongoing 'pre-test' and questionnaire design, as well as past anomalies during 2011 Socio-Economic Caste Census, as Independent India prepares to enumerate caste for the first time as part of the Census exercise

Explainer

Vijaita Singh

The story so far:

The rehearsal or the "pre-test" of the second phase of Census, which started in 16 States and Union Territories on July 6, 2026, has an "open column" for respondents to record their castes, several officials involved in the exercise told *The Hindu*. The pre-test is on till July 20, 2026, and the outcome will decide how Independent India enumerates caste for the first time as part of the Census. Other than the Scheduled Castes (SC) and Scheduled Tribes (ST), caste-wise population has not been enumerated in Independent India; the last time such data was collected was in 1931.

Background of caste Census

After repeatedly opposing caste enumeration, the Bharatiya Janata Party (BJP)-led National Democratic Alliance (NDA) finally announced on April 30, 2025 that caste would be counted during Population Census 2027. Before this, the Opposition parties, particularly Congress leader Rahul Gandhi, had consistently demanded that the caste of all people be counted in India.

A few alliance partners of the BJP too made the demand. Unlike the 2011 Socio-Economic Caste Census (SECC), which was done outside the purview of the Census, this time, caste will be enumerated with the second and final phase of the Census, giving it a statutory backing.

Significance of the ongoing pre-test

Though the ongoing rehearsal gives an indication of how caste is likely to be enumerated in the coming days, Census officials said the final methodology would be prepared based on the feedback received during the exercise. The pre-test exercise also allowed self-enumeration



The Opposition seeks wider consultations before the caste Census is conducted. C. VENKATACHALAPATHY

and the portal was accessible from July 1-5 only in the specific area where the rehearsal is being done.

The discourse on the methodology of caste enumeration has largely swung between either leaving an open column for caste, just as the 2011 SECC did, or preparing a list of castes for people to pick from – as the Bihar government did in its 2022-23 caste-based survey. The results of the SECC were neither released by the United Progressive Alliance (UPA) government nor by the NDA government after it came to power in 2014.

The open-column methodology had resulted in the 2011 SECC returning over 46 lakh different "caste names", largely owing to the difference in what people understand by caste. The total number of castes during the 1931 Census conducted by the British was 4,147. In 2021, the Union government informed the Supreme Court in an affidavit, "Assuming that some castes may bifurcate into sub-castes, the total number cannot be exponentially high to this extent," adding that the data cannot be relied on for reservation in education, employment or elections to

local authorities.

Anomalies reported during 2011 SECC

Officials said the SECC threw up lakhs of caste names as it was kept open-ended. Respondents were asked to name their castes. For example, people wrote Gupta, Agarwal and so on for the Baniya caste, which increased the numbers exponentially. Though the method is not final, the pre-test is providing the same open-ended column for respondents to record their castes.

According to the latest government data, there are about 2,650 Other Backward Classes (OBCs) on the Central List, 1,170 in the Scheduled Castes category, and 890 in the Scheduled Tribes (ST) list. The State governments maintain their own OBC list.

Concerns about the methodology

The Opposition parties have demanded wider consultation with all stakeholders before the caste Census is undertaken. On December 2, 2025, Mr. Gandhi asked in the Lok Sabha if the government has any proposal to publish the draft Census

questions and seek inputs from the general public or people's representatives and whether it will consider best practices such as caste surveys done in other States.

Responding to this, Minister of State for Home Nityanand Rai said, "The draft Census questionnaires are pre-tested in the field to assess their feasibility before finalisation of the same. Census has a history of more than 150 years. Learnings from previous Census are taken into consideration for conducting next Census. Before each Census, the inputs are also taken from stakeholders." Throughout 2025, the government repeatedly stated that the final caste questionnaire had not been settled. Parliament was informed in February 2026 that questions relating to caste would be notified before the commencement of the second phase of Census operations. The Union Home Ministry said representations had been received from various organisations and State governments regarding caste enumeration, and that the final questionnaire would be prepared according to established procedures.

Reason for delay in Census exercise

The Population Census exercise is done in two phases – the Housing and House Listing Operations (HLO) and Population Enumeration, spanning over 11 months. The last Census was completed in 2011. The next exercise, Population Census 2021, was initially delayed owing to the COVID pandemic that surfaced in India around March 2020, coinciding with the first phase enumeration that was to begin from April 1, 2020. While the restrictions related to the pandemic were over by 2022, government did not specify the reasons to delay the exercise till now. On June 4, 2025, the government announced that the population Census along with the enumeration of castes will be conducted in two phases by February 28, 2027. The reference date of the people's headcount will be 12 a.m., March 1, 2027.

THE GIST

▼ The BJP-led NDA government announced on April 30, 2025 that caste would be counted during Population Census 2027.

▼ The discourse on the methodology of caste enumeration has largely swung between either leaving an open column for caste, just as the 2011 SECC did, or preparing a list of castes for people to pick from – as the Bihar government did in its 2022-23 caste-based survey.

08J7. On the method for caste enumeration

जाति गणना की पद्धति पर

- The rehearsal or the "pre-test" of the second phase of Census, which started in 16 States and Union Territories on July 6, 2026, has an "open column" for respondents to record their castes, several officials involved in the exercise told *The Hindu*.

जनगणना के दूसरे चरण का "प्री-टेस्ट" या पूर्वाभ्यास, जो 6 जुलाई 2026 को 16 राज्यों और केंद्र शासित प्रदेशों में शुरू हुआ, उसमें उत्तरदाताओं को अपनी जाति दर्ज करने के लिए एक "ओपन कॉलम" दिया गया है, ऐसा इस प्रक्रिया से जुड़े कई अधिकारियों ने द हिंदू को बताया।

- The pre-test is on till July 20, 2026, and the outcome will decide how Independent India enumerates caste for the first time as part of the Census.

यह प्री-टेस्ट 20 जुलाई 2026 तक चलेगा और इसका परिणाम यह तय करेगा कि स्वतंत्र भारत पहली बार जनगणना के हिस्से के रूप में जाति की गणना कैसे करेगा।

- Other than the Scheduled Castes (SC) and Scheduled Tribes (ST), caste-wise population has not been enumerated in Independent India; the last time such data was collected was in 1931.

अनुसूचित जातियों (SC) और अनुसूचित जनजातियों (ST) को छोड़कर, स्वतंत्र भारत में जातिवार जनसंख्या की गणना नहीं की गई है; आखिरी बार ऐसा डेटा 1931 में एकत्र किया गया था।

Significance of the ongoing pre-test

चल रहे प्री-टेस्ट का महत्व

- The pre-test exercise also allowed **self-enumeration** and the portal was accessible from **July 1-5** only in the specific area where the rehearsal is being done.
प्री-टेस्ट प्रक्रिया में **स्व-गणना** की भी अनुमति दी गई और पोर्टल **1-5 जुलाई** तक केवल उसी विशेष क्षेत्र में उपलब्ध था जहाँ पूर्वाभ्यास किया जा रहा है।
- The discourse on the methodology of caste enumeration has largely swung between either leaving an **open column for caste**, just as the 2011 SECC did, or preparing a list of castes for people to pick from — as the Bihar government did in its **2022-23 caste-based survey**.
जाति गणना की पद्धति पर चर्चा मुख्य रूप से या तो **जाति के लिए ओपन कॉलम** छोड़ने — जैसा कि 2011 SECC में किया गया था — या लोगों के चयन के लिए जातियों की सूची तैयार करने के बीच रही है, जैसा कि बिहार सरकार ने अपने **2022-23 जाति आधारित सर्वेक्षण** में किया था।
- The results of the SECC were neither released by the **United Progressive Alliance (UPA)** government nor by the NDA government after it came to power in 2014.
SECC के परिणाम न तो **संयुक्त प्रगतिशील गठबंधन (UPA)** सरकार द्वारा जारी किए गए और न ही 2014 में सत्ता में आने के बाद NDA सरकार द्वारा।
- The **open-column methodology** had resulted in the 2011 SECC returning over **46 lakh different "caste names"**, largely owing to the difference in what people understand by caste.
ओपन-कॉलम पद्धति के कारण 2011 SECC में **46 लाख से अधिक अलग-अलग "जाति नाम"** सामने आए, जिसका मुख्य कारण लोगों की जाति को लेकर अलग-अलग समझ थी।
- The total number of castes during the **1931 Census** conducted by the British was **4,147**.
ब्रिटिश शासन द्वारा कराई गई **1931 की जनगणना** के दौरान कुल जातियों की संख्या **4,147** थी।
- In 2021, the Union government informed the **Supreme Court** in an affidavit, "Assuming that some castes may bifurcate into sub-castes, the total number cannot be exponentially high to this extent," adding that the data cannot be relied on for reservation in education, employment or elections to local authorities.
2021 में, केंद्र सरकार ने **सर्वोच्च न्यायालय** को एक शपथपत्र में बताया कि "यदि यह मान भी लिया जाए कि कुछ जातियाँ उपजातियों में विभाजित हो सकती हैं, तो कुल संख्या इतनी अत्यधिक नहीं हो सकती," और कहा कि इस डेटा पर शिक्षा, रोजगार या स्थानीय निकाय चुनावों में आरक्षण के लिए भरोसा नहीं किया जा सकता।

Anomalies reported during 2011 SECC 2011 SECC के दौरान दर्ज की गई विसंगतियाँ

- Officials said the **SECC** threw up lakhs of caste names as it was kept **open-ended**.
अधिकारियों ने कहा कि **SECC** में लाखों जातियों के नाम सामने आए क्योंकि इसे **खुले विकल्प वाला (open-ended)** रखा गया था।
- Respondents were asked to name their **castes**.
उत्तरदाताओं से उनकी **जातियों** के नाम बताने को कहा गया था।
- For example, people wrote **Gupta, Agarwal** and so on for the **Baniya caste**, which increased the numbers exponentially.
उदाहरण के लिए, लोगों ने **बनिया जाति** के लिए **गुप्ता, अग्रवाल** आदि लिखा, जिससे संख्या बहुत तेजी से बढ़ गई।
- Though the method is not final, the **pre-test** is providing the same open-ended column for respondents to record their castes.
हालांकि पद्धति अभी अंतिम नहीं है, लेकिन **पूर्व-परीक्षण (pre-test)** में उत्तरदाताओं को अपनी जातियाँ दर्ज करने के लिए वही खुला कॉलम प्रदान किया जा रहा है।
- According to the latest government data, there are about **2,650 Other Backward Classes (OBCs)** on the Central List, **1,170 in the Scheduled Castes category**, and **890 in the Scheduled Tribes (ST) list**.
नवीनतम सरकारी आंकड़ों के अनुसार, केंद्रीय सूची में लगभग **2,650 अन्य पिछड़ा वर्ग (OBC)**, अनुसूचित जाति श्रेणी में **1,170** और अनुसूचित जनजाति (ST) सूची में **890** वर्ग हैं।

- The State governments maintain their own **OBC list**.
राज्य सरकारें अपनी अलग **OBC सूची** बनाए रखती हैं।

Concerns about the methodology कार्यप्रणाली को लेकर चिंताएं

- The Opposition parties have demanded wider consultation with all **stakeholders** before the caste Census is undertaken.
विपक्षी दलों ने जाति जनगणना शुरू करने से पहले सभी **हितधारकों** के साथ व्यापक परामर्श की मांग की है।
- On **December 2, 2025**, Mr. Gandhi asked in the **Lok Sabha** if the government has any proposal to publish the draft Census questions and seek inputs from the general public or people's representatives and whether it will consider best practices such as caste surveys done in other States.
2 दिसंबर 2025 को श्री गांधी ने **लोकसभा** में पूछा कि क्या सरकार का जनगणना प्रश्नों का मसौदा प्रकाशित करने और आम जनता या जनप्रतिनिधियों से सुझाव लेने का कोई प्रस्ताव है तथा क्या वह अन्य राज्यों में किए गए जाति सर्वेक्षणों जैसी श्रेष्ठ प्रक्रियाओं पर विचार करेगी।
- Responding to this, **Minister of State for Home Nityanand Rai** said, "The draft Census questionnaires are pre-tested in the field to assess their feasibility before finalisation of the same."
इसके उत्तर में **गृह राज्य मंत्री नित्यानंद राय** ने कहा, "जनगणना प्रश्नावली के मसौदे को अंतिम रूप देने से पहले इसकी व्यवहार्यता जांचने के लिए क्षेत्र में पूर्व-परीक्षण किया जाता है।"
- Census** has a history of more than **150 years**.
जनगणना का इतिहास **150 वर्षों** से अधिक पुराना है।
- Learnings from previous Census are taken into consideration for conducting next Census.
अगली जनगणना आयोजित करने के लिए पिछली जनगणनाओं से मिली सीख को ध्यान में रखा जाता है।
- Before each Census, the inputs are also taken from **stakeholders**.
प्रत्येक जनगणना से पहले **हितधारकों** से भी सुझाव लिए जाते हैं।
- Throughout **2025**, the government repeatedly stated that the final **caste questionnaire** had not been settled.
पूरे **2025** के दौरान सरकार ने बार-बार कहा कि अंतिम **जाति प्रश्नावली** अभी तय नहीं की गई है।
- Parliament was informed in **February 2026** that questions relating to caste would be notified before the commencement of the **second phase of Census operations**.
फरवरी 2026 में संसद को बताया गया कि जाति से संबंधित प्रश्नों को **जनगणना कार्यों के दूसरे चरण** की शुरुआत से पहले अधिसूचित किया जाएगा।
- The **Union Home Ministry** said representations had been received from various organisations and State governments regarding caste enumeration, and that the final questionnaire would be prepared according to established procedures.
केंद्रीय गृह मंत्रालय ने कहा कि जाति गणना के संबंध में विभिन्न संगठनों और राज्य सरकारों से सुझाव प्राप्त हुए हैं और अंतिम प्रश्नावली स्थापित प्रक्रियाओं के अनुसार तैयार की जाएगी।

Reason for delay in Census exercise जनगणना प्रक्रिया में देरी का कारण

- The **Population Census exercise** is done in two phases — the **Housing and House Listing Operations (HLO)** and **Population Enumeration**, spanning over 11 months.
जनसंख्या जनगणना प्रक्रिया दो चरणों में की जाती है — **आवास और मकान सूचीकरण कार्य (HLO)** तथा **जनसंख्या गणना**, जो 11 महीनों तक चलती है।
- The last **Census** was completed in **2011**.
पिछली **जनगणना 2011** में पूरी हुई थी।



- The next exercise, **Population Census 2021**, was initially delayed owing to the **COVID pandemic** that surfaced in India around March 2020, coinciding with the first phase enumeration that was to begin from **April 1, 2020**.
अगली प्रक्रिया, **जनसंख्या जनगणना 2021**, शुरुआत में **कोविड महामारी** के कारण विलंबित हुई, जो मार्च 2020 के आसपास भारत में सामने आई और उसी समय पहला चरण **1 अप्रैल 2020** से शुरू होना था।
- While the restrictions related to the pandemic were over by **2022**, government did not specify the reasons to delay the exercise till now.
हालांकि महामारी से संबंधित प्रतिबंध **2022** तक समाप्त हो गए थे, लेकिन सरकार ने अब तक प्रक्रिया में देरी के कारण स्पष्ट नहीं किए।
- On **June 4, 2025**, the government announced that the population Census along with the **enumeration of castes** will be conducted in two phases by **February 28, 2027**.
4 जून 2025 को सरकार ने घोषणा की कि **जातियों की गणना** के साथ जनसंख्या जनगणना **28 फरवरी 2027** तक दो चरणों में आयोजित की जाएगी।
- The reference date of the people's headcount will be **12 a.m., March 1, 2027**.
जनसंख्या गणना की संदर्भ तिथि **1 मार्च 2027**, रात **12 बजे** होगी।

GS Paper II: Polity		08 July 2026
TOPICS COVERED		
08J7	Four States reach a pact on Narmada project payments चार राज्यों ने नर्मदा परियोजना भुगतान पर समझौता किया	
08J7	WhatsApp username debate brings informational privacy to the fore WhatsApp यूजरनेम बहस ने सूचना संबंधी गोपनीयता को केंद्र में लाया	

Four States reach a pact on Narmada project payments

Union Home Minister says that issue of pending payments had remained unresolved for a long time and it had been settled amicably; water and electricity have reached all four States, he adds

GS II: Polity

The Hindu Bureau
NEW DELHI

The States of Maharashtra, Gujarat, Rajasthan and Madhya Pradesh reached an agreement on Tuesday on the settlement of pending payment issues among the Narmada Award beneficiary States.

The agreement was signed in the presence of Home Minister Amit Shah and Union Minister of Jal Shakti C.R. Patil. Chief Ministers Devendra Fadnavis (Maharashtra), Bhupendra Patel (Gujarat), Bhajan Lal Sharma (Rajasthan) and Mohan Yadav (Madhya Pradesh) signed the agreement, which relates to the cost-sharing arrangements for the construction of the Sardar Sarovar Project.

Under the agreement, the payments to be made towards the final settlement of pending dues have been resolved through a one-time settlement. Mr. Shah said that the issue of pending payments under the Narmada Award had remained unresolved among the four States for a long time, and that it had been resolved



Common platform: Union Home Minister Amit Shah and Union Minister of Jal Shakti C. R. Patil with the Chief Ministers of Madhya Pradesh, Gujarat, Maharashtra, and Rajasthan. PTI

amicably on Tuesday. He said that with the completion of the dam, water and electricity have reached every part of the four States.

He added that while the benefits accruing to Rajasthan may appear modest at first glance, the areas that have received Narmada waters have witnessed a transformation in both the value of the land and the fortunes of the farmers.

The Union Home Minister said that let it be Gujarat, Madhya Pradesh, Rajasthan, Haryana or

Maharashtra, the water ultimately served the people of the country, especially the farmers. Regardless of which part of the country the water is utilised in, the ultimate beneficiary will be an Indian, he said.

Water-sharing issues

Recently, significant progress has also been made in resolving long-standing water-sharing issues between States, such as those concerning the Kishau Dam project in Himachal Pradesh and the water dispute between Rajasthan

and Haryana, officials said. On June 29, Rajasthan and Haryana signed an agreement for the construction and implementation of the Yamuna Water Project, resolving a nearly three-decade-old issue.

Additionally, on June 16, Himachal Pradesh, Uttarakhand, Delhi, Uttar Pradesh, Haryana, and Rajasthan agreed to sign a Memorandum of Understanding (MoU) for the implementation of the Kishau Multipurpose Project to rejuvenate the Yamuna river. (With PTI inputs)

08J7. Four States reach a pact on Narmada project payments

चार राज्यों ने नर्मदा परियोजना भुगतान पर समझौता किया

- Union Home Minister says that issue of pending payments had remained unresolved for a long time and it had been settled amicably; water and electricity have reached all four States, he adds

केंद्रीय गृह मंत्री ने कहा कि लंबित भुगतानों का मुद्दा लंबे समय से अनसुलझा था और इसे सौहार्दपूर्ण तरीके से सुलझा लिया गया है; उन्होंने कहा कि चारों राज्यों तक पानी और बिजली पहुँच चुकी है

- The States of **Maharashtra, Gujarat, Rajasthan and Madhya Pradesh** reached an agreement on Tuesday on the settlement of pending payment issues among the **Narmada Award beneficiary States**.

महाराष्ट्र, गुजरात, राजस्थान और मध्य प्रदेश राज्यों ने मंगलवार को नर्मदा अवॉर्ड लाभार्थी राज्यों के बीच लंबित भुगतान मुद्दों के समाधान पर एक समझौता किया।

- The agreement was signed in the presence of Home Minister **Amit Shah** and Union Minister of Jal Shakti **C.R. Patil**.



यह समझौता गृह मंत्री **अमित शाह** और केंद्रीय जल शक्ति मंत्री **सी.आर. पाटिल** की उपस्थिति में हस्ताक्षरित किया गया।

- Chief Ministers **Devendra Fadnavis (Maharashtra), Bhupendra Patel (Gujarat), Bhajan Lal Sharma (Rajasthan) and Mohan Yadav (Madhya Pradesh)** signed the agreement, which relates to the cost-sharing arrangements for the construction of the **Sardar Sarovar Project**.
मुख्यमंत्रियों **देवेन्द्र फडणवीस (महाराष्ट्र), भूपेंद्र पटेल (गुजरात), भजन लाल शर्मा (राजस्थान) और मोहन यादव (मध्य प्रदेश)** ने समझौते पर हस्ताक्षर किए, जो **सरदार सरोवर परियोजना** के निर्माण के लिए लागत-साझाकरण व्यवस्था से संबंधित है।
- Under the agreement, the payments to be made towards the **final settlement of pending dues** have been resolved through a **one-time settlement**.
समझौते के तहत, **लंबित बकायों के अंतिम निपटारे** के लिए किए जाने वाले भुगतानों को **एकमुश्त समाधान** के माध्यम से हल किया गया है।
- Mr. Shah said that the issue of pending payments under the **Narmada Award** had remained unresolved among the four States for a long time, and that it had been resolved amicably on Tuesday.
श्री शाह ने कहा कि **नर्मदा अवॉर्ड** के तहत लंबित भुगतान का मुद्दा चारों राज्यों के बीच लंबे समय से अनसुलझा था और मंगलवार को इसे सौहार्दपूर्ण ढंग से हल कर लिया गया।
- He said that **with the completion of the dam, water and electricity have reached every part of the four States**.
उन्होंने कहा कि बाँध के पूरा होने के साथ चारों राज्यों के प्रत्येक हिस्से तक **पानी और बिजली** पहुँच गई है।
- He added that while the benefits accruing to **Rajasthan** may appear modest at first glance, the areas that have received Narmada waters have witnessed a transformation in both the value of the land and the fortunes of the farmers.
उन्होंने जोड़ा कि यद्यपि **राजस्थान** को मिलने वाले लाभ पहली नजर में सीमित दिखाई दे सकते हैं, लेकिन जिन क्षेत्रों को नर्मदा का पानी मिला है, वहाँ भूमि के मूल्य और किसानों की स्थिति दोनों में परिवर्तन देखा गया है।
- The Union Home Minister said that let it be **Gujarat, Madhya Pradesh, Rajasthan, Haryana or Maharashtra**, the water ultimately served the people of the country, especially the farmers.
केंद्रीय गृह मंत्री ने कहा कि चाहे **गुजरात, मध्य प्रदेश, राजस्थान, हरियाणा या महाराष्ट्र** हो, पानी अंततः देश के लोगों, विशेष रूप से किसानों की सेवा करता है।
- Regardless of which part of the country the water is utilised in, the ultimate beneficiary will be an **Indian**, he said.
उन्होंने कहा कि देश के किसी भी हिस्से में पानी का उपयोग हो, अंतिम लाभार्थी एक **भारतीय** ही होगा।

Water-sharing issues

जल-बंटवारा मुद्दे

- Recently, significant progress has also been made in resolving long-standing **water-sharing issues between States**, such as those concerning the **Kishau Dam project in Himachal Pradesh** and the water dispute between **Rajasthan and Haryana**, officials said.
अधिकारियों ने कहा कि हाल ही में राज्यों के बीच लंबे समय से चले आ रहे **जल-बंटवारा मुद्दों** को हल करने में भी महत्वपूर्ण प्रगति हुई है, जैसे **हिमाचल प्रदेश की किशाऊ बाँध परियोजना** और **राजस्थान तथा हरियाणा** के बीच जल विवाद।
- On **June 29**, **Rajasthan and Haryana signed an agreement for the construction and implementation of the Yamuna Water Project**, resolving a nearly **three-decade-old issue**.
29 जून को राजस्थान और हरियाणा ने **यमुना जल परियोजना** के निर्माण और कार्यान्वयन के लिए एक समझौते पर हस्ताक्षर किए, जिससे लगभग **तीन दशक पुराने मुद्दे** का समाधान हुआ।



- Additionally, on **June 16**, Himachal Pradesh, Uttarakhand, Delhi, Uttar Pradesh, Haryana, and Rajasthan agreed to sign a **Memorandum of Understanding (MoU)** for the implementation of the **Kishau Multipurpose Project** to rejuvenate the Yamuna river. इसके अतिरिक्त, 16 जून को हिमाचल प्रदेश, उत्तराखंड, दिल्ली, उत्तर प्रदेश, हरियाणा और राजस्थान ने यमुना नदी के पुनर्जीवन के लिए किशाऊ बहुउद्देश्यीय परियोजना के कार्यान्वयन हेतु समझौता ज्ञापन (MoU) पर हस्ताक्षर करने पर सहमति व्यक्त की।

WhatsApp username debate brings informational privacy to the fore

GS II: Polity

NEWS ANALYSIS

Krishnadas Rajagopal
NEW DELHI

What is perhaps *sui generis* (unique) about the WhatsApp "username" debate is that both the instant messaging platform and the Centre, in different ways, ultimately seek the same objective: protecting the informational privacy of users.

The Supreme Court, in its August 2017 judgment delivered by a nine-judge Bench, held that "informational privacy" is a facet of the fundamental right to privacy under Article 21 of the Constitution. The court recognised that threats to privacy in the information age could arise not only from the state but also from non-state actors.

WhatsApp claims that its optional "username" feature, publicly announced on June 29 but yet to be rolled out in In-



WhatsApp says the optional feature enhances privacy, but the Centre is wary of cyber risks.

dia, enhances user privacy. A username would prevent a user's phone number from being accessed by someone who does not already have it.

The Ministry of Electronics and Information Technology (MeitY), however, is apprehensive that the feature could lead to an increase in cybercrime. In its communication to WhatsApp, the Ministry listed an array of online crimes that could compromise informational privacy.

These included online fraud, phishing, digital arrest scams, impersonation and identity spoofing, including impersonation of individuals, public authorities, financial institutions and government agencies, by permitting the adoption of usernames closely resembling those of genuine persons or institutions.

Critics argue that the government cannot intervene in a company's launch of a lawful feature without a clear statutory basis. The government, however, may contend that its communication seeking clarification from WhatsApp on the feature is consistent with the legitimate aims of the state to protect national security and safeguard public welfare.

The 2017 judgment in the Justice K.S. Puttaswamy case observed that while the "web is a source of lawful activity", concerns of national security also arise because "the seamless structure of the

web can be exploited by terrorists to wreak havoc on societies. Cyber attacks can threaten financial systems".

However, the Constitution Bench also held that any encroachment on privacy must be justified by a fair law, backed by a legitimate aim, and must satisfy the test of proportionality.

While observing that "law and technology seldom mix like oil and water", the top court, in the Anuradha Bhasin case, posed a pertinent question: "What do we need more, liberty or security?"

"Although the choice is seemingly challenging, we need to clear ourselves from the platitude of rhetoric and provide a meaningful answer so that every citizen has adequate security and sufficient liberty. The pendulum of preference should not swing in either extreme direction so that one preference compromises the other," the court had said.

08J7. WhatsApp username debate brings informational privacy to the fore

WhatsApp यूजरनेम बहस ने सूचना संबंधी गोपनीयता को केंद्र में लाया

- What is perhaps *sui generis* (unique) about the WhatsApp "username" debate is that both the instant messaging platform and the Centre, in different ways, ultimately seek the same objective: **protecting the informational privacy of users**.

WhatsApp "यूजरनेम" बहस की संभवतः विशिष्ट (*sui generis*) बात यह है कि इंस्टेंट मैसेजिंग प्लेटफॉर्म और केंद्र सरकार दोनों अलग-अलग तरीकों से अंततः एक ही उद्देश्य चाहते हैं: उपयोगकर्ताओं की सूचना संबंधी गोपनीयता की रक्षा करना।

- The **Supreme Court**, in its **August 2017 judgment** delivered by a nine-judge Bench, held that "**informational privacy**" is a facet of the fundamental right to privacy under **Article 21 of the Constitution**.

सर्वोच्च न्यायालय ने अगस्त 2017 के फैसले में, जो नौ न्यायाधीशों की पीठ द्वारा दिया गया था, कहा कि



“सूचना संबंधी गोपनीयता” संविधान के अनुच्छेद 21 के तहत गोपनीयता के मौलिक अधिकार का एक पहलू है।

- A username would prevent a user's **phone number** from being accessed by someone who does not already have it.
एक यूजरनेम किसी व्यक्ति को उपयोगकर्ता के फोन नंबर तक पहुंचने से रोकेगा, यदि उसके पास वह पहले से उपलब्ध नहीं है।
- The **Ministry of Electronics and Information Technology (MeitY)**, however, is apprehensive that the feature could lead to an increase in **cybercrime**.
हालांकि, इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी मंत्रालय (MeitY) को आशंका है कि यह फीचर साइबर अपराध में वृद्धि कर सकता है।
- These included **online fraud, phishing, digital arrest scams, impersonation and identity spoofing**, including impersonation of individuals, public authorities, financial institutions and government agencies.
इनमें ऑनलाइन धोखाधड़ी, फिशिंग, डिजिटल गिरफ्तारी घोटाले, प्रतिरूपण और पहचान की जालसाजी शामिल थे, जिनमें व्यक्तियों, सार्वजनिक प्राधिकरणों, वित्तीय संस्थानों और सरकारी एजेंसियों का प्रतिरूपण भी शामिल है।
- By permitting the adoption of usernames closely resembling those of genuine persons or institutions.
ऐसे यूजरनेम अपनाने की अनुमति देकर जो वास्तविक व्यक्तियों या संस्थानों से काफी मिलते-जुलते हों।
- The **2017 judgment in the Justice K.S. Puttaswamy case** observed that while the “**web is a source of lawful activity**”, concerns of national security also arise because “the seamless structure of the web can be exploited by terrorists to wreak havoc on societies.”
न्यायमूर्ति के.एस. पुट्टस्वामी मामले में 2017 के फैसले ने कहा कि जहां “वेब वैध गतिविधियों का स्रोत है”, वहीं राष्ट्रीय सुरक्षा की चिंताएं भी उत्पन्न होती हैं क्योंकि “वेब की निर्बाध संरचना का आतंकवादियों द्वारा समाजों में विनाश फैलाने के लिए दुरुपयोग किया जा सकता है।”

GS Paper II: International Relations		08 July 2026
TOPICS COVERED		
08J7	Modi highlights need for two-state solution to end Israel-Palestine conflict मोदी ने इजरायल-फिलिस्तीन संघर्ष समाप्त करने के लिए द्वि-राष्ट्र समाधान की आवश्यकता पर जोर दिया	
08J7	Amnesty report finds proof of ethnic cleansing, crimes against civilians in Sudan एमनेस्टी रिपोर्ट में सूडान में जातीय सफाए और नागरिकों के विरुद्ध अपराधों के प्रमाण मिले	

Modi highlights need for two-state solution to end Israel-Palestine conflict

GS II: IR

Kallol Bhattacharjee
Saurabh Trivedi
NEW DELHI

Highlighting the role of dialogue and diplomacy in the "period of global turbulence", Prime Minister Narendra Modi on Tuesday reiterated the importance of the two-state solution to end the Israel-Palestine conflict.

"In this period of global turbulence, India believes that the role of dialogue and diplomacy has become more important than ever before. On the issue of Palestine, we continue to support a two-state solution and the pursuit of lasting peace," Mr. Modi said in Jakarta, Indonesia, the first leg of his three-nation visit. Mr. Modi also focused on commonalities between India and Indonesia globally important issues and said that the two countries are going to deepen cooperation on global issues.

A joint statement issued at the end of the official dialogue between Mr. Modi and Indonesia's President Prabowo Subianto said the leaders expressed "deep concern" over the war in West Asia and "its global effects".

Mr. Modi and Mr. Subianto also presided over the signing of 14 agreements and memoranda of understanding (MoUs), including ones that will allow India to deliver the Brah-



Prime Minister Narendra Modi with Indonesian President Prabowo Subianto on Tuesday. ANI

Mos supersonic cruise missile system and Astra Mk-1 beyond-visual-range air-to-air missiles to Indonesia.

Highlighting the "special importance" of the ASEAN grouping, he said, "There is strong synergy in our respective outlooks on the Indo-Pacific". "They welcomed the memorandum of understanding signed on 17 June 2026," mentioned the joint statement in reference to the agreement signed between the U.S. and Iran to end the war in West Asia, while adding that "transit passage through the Strait of Hormuz" has to be in "accordance with international law including the provisions of UNCLOS".

It further mentioned that the Indonesian President welcomed "India's interest in partnering on the integrated development of the Sabang Port" which

will include maritime industries, and "shore-based services supporting offshore energy activities in the Andaman Sea".

Highest honour

Indonesia bestowed the Prime Minister with its highest civilian honour 'Bintang Adipurna of the Republic of Indonesia'. Mr. Modi is the second Indian Prime Minister to receive this award. India's first Prime Minister Jawaharlal Nehru received the same award posthumously on December 12, 1995. "It reflects the goodwill of the people of Indonesia and stands as a tribute to the historic and enduring bonds of friendship between India and Indonesia," said Mr. Modi in his press statement expressing gratitude to Indonesian leadership and people for the gesture.

08J7. Modi highlights need for two-state solution to end Israel-Palestine conflict

मोदी ने इजरायल-फिलिस्तीन संघर्ष समाप्त करने के लिए द्वि-राष्ट्र समाधान की आवश्यकता पर जोर दिया

• Mr. Modi and Mr. Subianto also presided over the signing of **14 agreements and memoranda of understanding (MoUs)**, including ones that will allow India to deliver the **BrahMos supersonic cruise missile system** and **Astra Mk-1 beyond-visual-range air-to-air missiles** to Indonesia.

श्री मोदी और श्री सुबियांतो ने **14 समझौतों और समझौता ज्ञापनों (MoUs)** पर हस्ताक्षर की अध्यक्षता भी की, जिनमें वे समझौते शामिल हैं जो भारत को इंडोनेशिया को **ब्रहमोस सुपरसोनिक क्रूज मिसाइल प्रणाली और अस्ट्र Mk-1 बियॉन्ड-विजुअल-रेंज हवा-से-हवा मिसाइलें** प्रदान करने की अनुमति देंगे।

• Highlighting the **"special importance" of the ASEAN grouping**, he said, "There is strong synergy in our respective outlooks on the Indo-Pacific".

ASEAN समूह के "विशेष महत्व" को रेखांकित करते हुए उन्होंने कहा, "हिंद-प्रशांत क्षेत्र को लेकर हमारे संबंधित दृष्टिकोणों में मजबूत तालमेल है।"

• It further mentioned that the Indonesian President welcomed **"India's interest in partnering on the integrated development of the Sabang Port"**.

इसमें आगे उल्लेख किया गया कि

इंडोनेशियाई राष्ट्रपति ने "सबांग बंदरगाह के एकीकृत विकास में साझेदारी करने की भारत की रुचि" का स्वागत किया।

- Which will include maritime industries, and **"shore-based services supporting offshore energy activities in the Andaman Sea"**.

इसमें समुद्री उद्योग और "अंडमान सागर में अपतटीय ऊर्जा गतिविधियों का समर्थन करने वाली तटीय सेवाएँ" शामिल होंगी।

Highest honour सर्वोच्च सम्मान

- Indonesia bestowed the Prime Minister with its highest civilian honour '**Bintang Adipurna of the Republic of Indonesia**'.
इंडोनेशिया ने प्रधानमंत्री को अपना सर्वोच्च नागरिक सम्मान 'रिपब्लिक ऑफ इंडोनेशिया का बिनतांग आदिपूर्ण' प्रदान किया।
- Mr. Modi is the second Indian Prime Minister to receive this award.
श्री मोदी यह पुरस्कार प्राप्त करने वाले दूसरे भारतीय प्रधानमंत्री हैं।
- India's first Prime Minister **Jawaharlal Nehru** received the same award posthumously on **December 12, 1995**.
भारत के प्रथम प्रधानमंत्री **जवाहरलाल नेहरू** को यही पुरस्कार मरणोपरांत **12 दिसंबर 1995** को प्रदान किया गया था।

Amnesty report finds proof of ethnic cleansing, crimes against civilians in Sudan

CS II: IR
Rizmi Lia M.

In a report 'City Under Siege, Children Under Fire: Rapid Support Forces' Crimes Against Humanity in North Darfur' released on July 1, Amnesty International concluded that Sudanese paramilitary Rapid Support Forces (RSF) committed "crimes against humanity and carried out ethnic cleansing" during its campaign to seize El Fasher in Sudan's North Darfur state.

Sudan has been mired in a brutal war since April 2023 between the Sudanese Armed Forces (SAF) and the RSF, which has killed tens of thousands of people and displaced millions, according to the United Nations.

The report documents widespread abuses against civilians in and around El

Fasher between early 2024 and October 2025, as the RSF fought the SAF and allied joint forces in a conflict that devastated North Darfur.

Long list of crimes

According to Amnesty, the RSF committed murder, forcible transfer, imprisonment, torture, rape, sexual slavery, other forms of sexual violence, enslavement, extermination and persecution.

The investigation, conducted over eight months between August 2025 and April 2026, is based on interviews with 247 people, including 208 survivors (169 adults and 39 children) who experienced or witnessed conflict-related abuses. Amnesty also verified 89 videos and analysed satellite imagery from North Darfur.

Amnesty concluded that the RSF committed crimes against humanity and carried out ethnic cleansing during its campaign to seize El Fasher.

The report states that the RSF had taken control of four of Darfur's five state capitals by November 2023, leaving El Fasher as the last major stronghold of the SAF and allied joint forces. Beginning in 2024, the RSF systematically attacked villages, towns and displacement camps surrounding the city, targeting civilians, looting property and burning civilian infrastructure. Many of the affected communities were predominantly inhabited by the Zaghawa and other non-Arab ethnic groups. Amnesty further finds that the pattern of destroying villages in Abu Zerega area, populated primarily



People queue to receive free food being distributed at a camp for displaced people, near El-Obeid, Sudan, on June 29, AFP

by Zaghawa communities along with smaller numbers of other non-Arab ethnic groups, which took place between December 2024 and March 2025, is consistent with ethnic cleansing. This conclusion is reinforced by the RSF's continued control of these areas, preventing displaced populations from returning.

The report also says the

RSF repeatedly used the derogatory slur 'falangay' (or 'falangayat' in the plural), a term referring to slavery or servitude, while attacking civilians from non-Arab ethnic groups.

The RSF besieged El Fasher from May 2024 to October 2025, restricting the entry of food and humanitarian aid while shelling the city almost daily. As the famine spread, many resi-

dents reportedly survived by eating ambaz, a by-product of peanut oil production normally used as animal feed.

Many civilians attempted to flee towards Tawila, but the RSF made escape nearly impossible, according to the report. By October 2025, El Fasher was encircled by a 57-km network of earthen berms that restricted civilian movement. Witnesses told investigators that RSF fighters intercepted civilians attempting to flee, with many being executed or tortured.

Amnesty interviewed 18 people who were present at the Saudi Maternity Hospital, El Fasher's last functioning hospital, including staff, patients and relatives, who said they witnessed RSF fighters kill scores of people there. The report also documented

widespread rape and other forms of conflict-related sexual violence. It said the RSF unlawfully detained civilians, held many hostages for ransom in inhumane conditions, and recruited and used boys in violation of international law.

Amnesty also identified three RSF commanders allegedly responsible for serious violations of international law. It named Maj. Gen. Gedo Hamdan Ahmed Mohamed, known as 'Abu Shouk', Lt. Col. Abbas Khater Bakhit, and commander Al-Fateh Abdullah Idris, also known as 'Abu Lulu', citing witness testimony and verified videos that allegedly showed torture and summary executions.

Call for action
Agnes Callamard, Amnesty International's Secretary

General, urged the international community to move beyond statements of concern and take concrete steps to protect civilians and end impunity.

She called on Sudan's international partners to ensure that humanitarian aid, including child-focused services, reaches refugees and internally displaced people. She also urged action against the commanders identified in the report.

The report further called on all countries to immediately stop supplying arms and ammunition to parties to the Sudan conflict. It specifically urged States to stop providing arms to the United Arab Emirates, which Amnesty described as the RSF's principal foreign backer, until it complies with the UN arms embargo.

08J7. Amnesty report finds proof of ethnic cleansing, crimes against civilians in Sudan

एमनेस्टी रिपोर्ट में सूडान में जातीय सफाए और नागरिकों के विरुद्ध अपराधों के प्रमाण मिले

- In a report 'City Under Siege, Children Under Fire: Rapid Support Forces' Crimes Against Humanity in North Darfur' released on July 1, Amnesty International concluded that **Sudanese paramilitary Rapid Support Forces (RSF)** committed "crimes against humanity and carried out ethnic cleansing" during its campaign to seize **El Fasher in Sudan's North Darfur state**.

1 जुलाई को जारी रिपोर्ट 'City Under Siege, Children Under Fire: Rapid Support Forces'

Crimes Against Humanity in North Darfur' में एमनेस्टी इंटरनेशनल ने निष्कर्ष निकाला कि सूडानी

अर्धसैनिक रैपिड सपोर्ट फोर्स (RSF) ने सूडान के नॉर्थ दारफुर राज्य के एल फाशेर पर कब्जा करने के

अभियान के दौरान "मानवता के विरुद्ध अपराध" किए और "जातीय सफाया" किया।

- Sudan has been mired in a brutal war since April 2023 between the **Sudanese Armed Forces (SAF) and the RSF**, which has killed tens of thousands of people and displaced millions, according to the **United Nations**.

संयुक्त राष्ट्र के अनुसार सूडान अप्रैल 2023 से सूडानी सशस्त्र बल (SAF) और RSF के बीच भीषण युद्ध में फँसा हुआ है, जिसमें हजारों लोग मारे गए हैं और लाखों लोग विस्थापित हुए हैं।

- Amnesty further finds that the pattern of destroying villages in **Abu Zerega area, populated primarily by Zaghawa** communities along with smaller numbers of other **non-Arab ethnic**



groups, which took place between December 2024 and March 2025, is consistent with ethnic cleansing.

एमनेस्टी ने यह भी पाया कि दिसंबर 2024 से मार्च 2025 के बीच अबू ज़ेरेगा क्षेत्र में, जहाँ मुख्य रूप से ज़घावा और अन्य गैर-अरब जातीय समूह रहते थे, गाँवों को नष्ट करने का पैटर्न जातीय सफाए के अनुरूप है।

Call for action

कार्रवाई की अपील

- It specifically urged States to stop providing arms to the **United Arab Emirates**, which **Amnesty** described as the **RSF's principal foreign backer**, until it complies with the **UN arms embargo**.

रिपोर्ट में विशेष रूप से देशों से आग्रह किया गया कि वे संयुक्त अरब अमीरात को हथियार उपलब्ध कराना बंद करें, जिसे एमनेस्टी ने RSF का प्रमुख विदेशी समर्थक बताया है, जब तक कि वह संयुक्त राष्ट्र के हथियार प्रतिबंध का पालन नहीं करता।

GS Paper III: Economy		08 July 2026
TOPICS COVERED		
08J7	Grand ambitions विशाल महत्वाकांक्षाएं	
08J7	India's economic prospects after the West Asian crisis पश्चिम एशियाई संकट के बाद भारत की आर्थिक संभावनाएं	
08J7	What does the lifting of gas curbs mean? गैस प्रतिबंधों को हटाने का क्या अर्थ है?	
08J7	How India's life insurance sector funds government expenditure भारत का जीवन बीमा क्षेत्र सरकारी व्यय को कैसे वित्तपोषित करता है	
08J7	Upcoming Index of Services Production is expected to rely heavily on GST figures आगामी सेवा उत्पादन सूचकांक (Index of Services Production) के लिए GST आंकड़ों पर भारी निर्भरता रहने की संभावना	



GS III: Economy

Grand ambitions

India's cooperative sector can serve as a worker-centric model of development

Hypercompetitive business models that dominate the economic lives of people have undesirable social consequences. The cooperative model offers an alternative, albeit with its own imperfections. India's Ministry of Cooperation, which completed five years on July 6, is a bold experiment in harnessing the potential of this approach. Traditionally confined largely to agriculture, cooperatives now have the opportunity and a requirement to expand into other sectors, particularly services. Cooperatives, by their very character, are relatively small-scale and fragmented; organising them, and connecting them to the broader economy that disproportionately rewards hyper-scalers is a balancing intervention — an economic, political and social imperative. The Ministry aims to transform the cooperative landscape by bringing policy coherence across agriculture, dairy, fisheries, banking, housing, consumer cooperatives, and exports. This requires collaboration with States and national federations, capacity building, wise use of digital technology, and market linkages. Primary Agricultural Credit Societies (PACS) are the foundation of rural cooperatives. Through a reformed legal framework, they have been empowered to undertake over 25 business activities, transforming them into multifaceted institutions delivering many economic services in rural India.

The Ministry has facilitated new national-level multi-State cooperative societies, expanding market access for members and strengthening cooperative value chains from production to global markets. Cooperative enterprises are being encouraged to grow and compete, and a National Cooperation Policy is in the making. But there are challenges amid the opportunities. Corruption and inefficiency eroded the potential of India's cooperative sector, and the fear of local communities and States losing control of cooperatives to a national-level mechanism needs to be assuaged. The task is in finding the sweet spot of consolidation and decentralisation; localisation and nationalisation; technology and human labour, for boosting the sector. Union Home Minister Amit Shah, who holds the portfolio, is pushing the cooperative sector to expand into production and marketing, beyond agricultural credit and input facilitation, which could help mitigate the sector's endemic crisis. A well-coordinated, yet federated, cooperative sector can offset the social, environmental and political costs of global capitalism, which is the default model of the economy. Government and business leaders worldwide are viewing cooperatives with renewed interest, as the pitfalls of hypercapitalism become pronounced. India can develop its cooperative sector as a global model.

markets.

मंत्रालय ने नई राष्ट्रीय स्तर की बहु-राज्य सहकारी समितियों को सुविधा प्रदान की है, जिससे सदस्यों की बाजार तक पहुंच बढ़ी है और उत्पादन से वैश्विक बाजारों तक सहकारी मूल्य श्रृंखलाएं मजबूत हुई हैं।

- **Cooperative enterprises** are being encouraged to grow and compete, and a **National Cooperation Policy** is in the making.

सहकारी उद्यमों को बढ़ने और प्रतिस्पर्धा करने के लिए प्रोत्साहित किया जा रहा है, और एक राष्ट्रीय सहकारिता नीति तैयार की जा रही है।

08J7. Grand ambitions

विशाल महत्वाकांक्षाएं

- India's **Ministry of Cooperation**, which completed five years on **July 6**, is a bold experiment in harnessing the potential of this approach.

भारत का सहकारिता मंत्रालय, जिसने 6 जुलाई को पांच वर्ष पूरे किए, इस दृष्टिकोण की क्षमता का उपयोग करने का एक साहसिक प्रयोग है।

- Cooperatives, by their very character, are relatively **small scale and fragmented**; organising them, and connecting them to the broader economy that disproportionately rewards hyper-scalers is a balancing intervention — an **economic, political and social imperative**.

सहकारी संस्थाएं अपने स्वभाव से अपेक्षाकृत छोटे पैमाने की और बिखरी हुई होती हैं; उन्हें संगठित करना और उन्हें व्यापक अर्थव्यवस्था से जोड़ना, जो बड़े स्तर पर विस्तार करने वालों को असमान रूप से लाभ देती है, एक संतुलनकारी हस्तक्षेप है — एक आर्थिक, राजनीतिक और सामाजिक आवश्यकता।

- The **Ministry aims to transform the cooperative landscape** by bringing policy coherence across **agriculture, dairy, fisheries, banking, housing, consumer cooperatives, and exports**.

मंत्रालय का उद्देश्य कृषि, डेयरी, मत्स्य पालन, बैंकिंग, आवास, उपभोक्ता सहकारी संस्थाओं और निर्यात में नीतिगत सामंजस्य लाकर सहकारी परिदृश्य को बदलना है।

- This requires collaboration with **States and national federations**, capacity building, wise use of **digital technology**, and market linkages.

इसके लिए राज्यों और राष्ट्रीय संघों के साथ सहयोग, क्षमता निर्माण, डिजिटल तकनीक का विवेकपूर्ण उपयोग और बाजार से जुड़ाव आवश्यक है।

- **Primary Agricultural Credit Societies (PACS)** are the **foundation of rural cooperatives**.

प्राथमिक कृषि ऋण समितियां (PACS) ग्रामीण सहकारी संस्थाओं की नींव हैं।

- Through a reformed **legal framework**, they have been empowered to undertake over **25 business activities**, transforming them into multifaceted institutions delivering many economic services in rural India.

सुधारित कानूनी ढांचे के माध्यम से, उन्हें 25 से अधिक व्यावसायिक गतिविधियां करने का अधिकार दिया गया है, जिससे वे ग्रामीण भारत में कई आर्थिक सेवाएं प्रदान करने वाली बहुआयामी संस्थाओं में बदल गई हैं।

- The **Ministry has facilitated new national-level multi-State cooperative societies**, expanding market access for members and strengthening cooperative value chains from production to global

- But there are challenges amid the opportunities.
लेकिन अवसरों के बीच चुनौतियां भी मौजूद हैं।
- **Corruption and inefficiency** eroded the potential of India's cooperative sector, and the fear of local communities and States losing control of cooperatives to a national-level mechanism needs to be assuaged.
भ्रष्टाचार और अक्षमता ने भारत के सहकारी क्षेत्र की क्षमता को कमजोर किया है, और स्थानीय समुदायों तथा राज्यों द्वारा सहकारी संस्थाओं पर नियंत्रण खोने के भय को दूर करने की आवश्यकता है।
- The task is in finding the sweet spot of **consolidation and decentralisation; localisation and nationalisation; technology and human labour**, for boosting the sector.
इस क्षेत्र को बढ़ावा देने के लिए **एकीकरण और विकेंद्रीकरण; स्थानीयकरण और राष्ट्रीयकरण; तकनीक और मानव श्रम** के बीच सही संतुलन खोजना आवश्यक है।
- **Union Home Minister Amit Shah**, who holds the portfolio, is pushing the cooperative sector to expand into **production and marketing**, beyond agricultural credit and input facilitation, which could help mitigate the sector's endemic crisis.
केंद्रीय गृह मंत्री अमित शाह, जिनके पास यह मंत्रालय है, सहकारी क्षेत्र को कृषि ऋण और संसाधन सुविधा से आगे बढ़ाकर **उत्पादन और विपणन** में विस्तार देने पर जोर दे रहे हैं, जिससे इस क्षेत्र के दीर्घकालिक संकट को कम करने में मदद मिल सकती है।
- A well-coordinated, yet federated, **cooperative sector** can offset the **social, environmental and political costs of global capitalism**, which is the default model of the economy.
एक सुव्यवस्थित लेकिन संघीय **सहकारी क्षेत्र**, अर्थव्यवस्था के प्रमुख मॉडल बने **वैश्विक पूंजीवाद की सामाजिक, पर्यावरणीय और राजनीतिक लागतों** को संतुलित कर सकता है।
- **Government and business leaders worldwide are viewing cooperatives with renewed interest**, as the pitfalls of **hypercapitalism** become pronounced.
दुनिया भर में सरकारें और व्यापारिक नेता **सहकारी संस्थाओं** को नए दृष्टिकोण से देख रहे हैं, क्योंकि **अत्यधिक पूंजीवाद** की कमियां अधिक स्पष्ट होती जा रही हैं।
- **India can develop its cooperative sector as a global model.**
भारत अपने **सहकारी क्षेत्र** को एक वैश्विक मॉडल के रूप में विकसित कर सकता है।



India's economic prospects after the West Asian crisis

SS III: Economy

The United States and Iran agreed to a 14-point preliminary Memorandum of Understanding (MoU) towards ending the West Asian crisis and reopening the Strait of Hormuz. Although there have been initial hiccups, it is expected that, with the reopening of the Strait, global crude oil supply will stabilise and prices will normalise at a lower level. Following these developments, India should adjust its strategies, keeping in mind both the 2026-27 outlook and medium-term growth prospects.

The West Asian crisis had resulted in a period of relatively higher crude prices. The monthly average price of the Indian crude oil basket was \$114.5 per bbl in April 2026. It declined to \$106.2 per bbl in May 2026 and further to \$86.3 per bbl as of June 24, 2026. For the remaining three quarters of 2026-27, crude oil prices are expected to remain below this level, provided the truce continues.

2026-27 growth prospects

The National Statistical Office's provisional estimates of GDP growth of 7.7% for 2025-26 confirm India's strong post-COVID-19 pandemic recovery. This was preceded by real GDP growth rates of 7.2% and 7.1%, respectively, in 2023-24 and 2024-25 as per the new GDP series. Real Gross Value Added (GVA) growth was even more impressive at 7.9% in 2025-26, with the manufacturing, trade, transport, and financial and real estate sectors recording growth rates exceeding 10%. With nominal GDP growth at 8.9%, the implicit price deflator-based inflation rate stood at 1.1% in 2025-26.

For 2026-27, growth prospects are likely to be impacted because of the disruptions in crude supply and higher prices affecting the first quarter, and due to a deficiency in rainfall associated with the onset of El Niño. The India Meteorological Department has estimated a 10% shortfall (as compared with the Long Period average). Up to June 24, 2026, the estimated shortfall is nearly 43%.

The combination of El Niño and fertilizer shortages pose a potential risk to India's agricultural output in 2026-27. In particular, in the immediate term, the *kharif* crop is likely to be affected. There may also be an impact on the *rabi* crop which is to follow. Therefore, it is important to build up fertilizer reserves and address issues



C. Rangarajan
Former Chairman,
Prime Minister's
Economic Advisory
Council, and former
Governor,
Reserve Bank of India



D.K. Srivastava
Former Director,
Madras School
of Economics

Changing
dynamics
present
opportunities
and challenges
for the
economy

of potential shortages when it comes to important crops, which may warrant a reconsideration of crop-specific import and export policies. The Reserve Bank of India (RBI) has projected real GDP growth of 6.6% for 2026-27.

Fiscal prospects, petroleum economy

One important feature of 2026-27 growth is the likelihood of relatively higher nominal GDP growth as compared to 2025-26. This is because the implicit price deflator (IPD), which depends on Wholesale Price Index (WPI) and Consumer Price Index (CPI) inflation, is likely to be higher than the 2025-26 level of 1.1%. The RBI's June 2026 Professional Forecasters' median projections for WPI and CPI inflation for 2026-27 are 8% and 4.9%, respectively. With a resolution of the West Asian crisis, we consider WPI and CPI inflation rates for the full year to be lower at 6% and 4.5%; using weights of 60% and 40%, respectively, we can broadly estimate IPD-based inflation to be 5.4%. Combining this with a real GDP growth of 6.6%, we may have a nominal growth of about 12.4% in 2026-27, higher than the budgeted growth of 10.1%. This would have a positive impact on tax revenues. The Government of India should be able to realise its budgeted estimate of tax revenues absorbing the adverse revenue impact of any excise duty cuts. On the expenditure side, however, subsidies may be higher than budgeted.

The RBI has given a dividend of ₹2.69 lakh crore to the Government. This amount covers a significant portion of the budgeted 'Dividends and profits from RBI and Financial Institutions' in 2026-27 at ₹3.16 lakh crore. Given these developments, we expect the 2026-27 budgeted fiscal deficit at 4.3% of GDP to be either realised or only marginally exceeded.

The evolution of India's petroleum economy has been characterised by certain notable features. First, India's dependence on imported crude oil has increased to more than 90% in 2025-26 from 54.9% in 1998-99. Second, the volume of domestic production of crude oil has fallen over time to 26 million metric tons (MMT) in 2025-26 from a peak of 35.9 MMT in 2011-12. Third, demand for petroleum products/petroleum, oil, and lubricants (PoL) has increased, thereby generating the need for larger imports. Fourth, domestic consumption of PoL

products has increased to 243.2 MMT in 2025-26 from 90.6 MMT in 1998-99. Fifth, India has developed an impressive capacity for refining crude to produce various PoL products. This capacity has improved over time. Sixth, the energy intensity of India's output, as well as the intensity of use of PoL products in GDP, has fallen over time. This augurs well for sustaining an energy-efficient growth at a reasonably high level for a relatively longer period.

India may continue to augment its refining capacity, which has helped save refining costs compared to the situation if it had directly imported refined petroleum products. The trend towards growing dependence on imported crude oil needs to be reversed by emphasising the exploitation of domestic crude resources while accelerating the transition to greener and alternative energy sources, including nuclear power.

Build reserves

With a lowering of global crude prices and normalisation of supplies, the government should shore up its fertilizer reserves and reserves for other critical primary commodities including crude. There is a need to further diversify sources of imported crude and also reduce reliance on imports through the Strait of Hormuz. A policy for building strategic reserves of key primary commodities, along with estimates of the required volumes and needed infrastructure, should be put in place.

The current account deficit was 0.6% of GDP in 2025-26, with the fourth quarter showing a surplus of 0.7% of GDP. Prospects for 2026-27 indicate a deterioration in this magnitude. The RBI's June 2026 Survey of Professional Forecasters had estimated a current account deficit of 2.1% of GDP for 2026-27, as per their median estimate. With normalisation of the global oil market and the opening of the Hormuz strait, we expect this to be lower at about 1.5% of GDP.

The prospects of the Indian economy outlined above is on the assumption that peace will prevail in West Asia from now on. If this assumption turns out to be incorrect and if the war continues, India along with many other countries will face an extremely difficult situation.

The views expressed are personal

08J7. India's economic prospects after the West Asian crisis

पश्चिम एशियाई संकट के बाद भारत की आर्थिक संभावनाएं

- Real Gross Value Added (GVA) growth was even more impressive at 7.9% in 2025-26, with the manufacturing, trade, transport, and financial and real estate sectors recording growth rates exceeding 10%.

वास्तविक सकल मूल्य वर्धन (GVA) वृद्धि 2025-26 में 7.9% के साथ और भी प्रभावशाली रही, जिसमें विनिर्माण, व्यापार, परिवहन तथा वित्तीय और रियल एस्टेट क्षेत्रों ने 10% से अधिक वृद्धि दर दर्ज की।

- With nominal GDP growth at 8.9%, the implicit price deflator-based inflation rate stood at 1.1% in 2025-26.

8.9% की नाममात्र GDP वृद्धि के साथ, अंतर्निहित मूल्य अपस्फीतिकारक आधारित मुद्रास्फीति दर 2025-26 में 1.1% रही।

- The RBI has given a dividend of ₹2.69 lakh crore to the Government.

RBI ने सरकार को ₹2.69 लाख करोड़ का लाभांश दिया है।

- This amount covers a significant portion of the budgeted 'Dividends and profits from RBI and Financial Institutions' in 2026-27 at ₹3.16 lakh crore.

यह राशि 2026-27 में 'RBI और वित्तीय संस्थानों से लाभांश और मुनाफे' के बजट अनुमान ₹3.16 लाख करोड़ के एक महत्वपूर्ण हिस्से को पूरा करती है।

- Given these developments, we expect the 2026-27 budgeted fiscal deficit at 4.3% of GDP to be either realised or only marginally exceeded.

इन घटनाक्रमों को देखते हुए, हम उम्मीद करते हैं कि 2026-27 का बजट अनुमानित राजकोषीय घाटा GDP के 4.3% पर प्राप्त होगा या केवल मामूली रूप से अधिक होगा।

- Second, the volume of **domestic production of crude oil** has fallen over time to **26 million metric tons (MMT) in 2025-26** from a peak of **35.9 MMT in 2011-12**.
दूसरा, कच्चे तेल का घरेलू उत्पादन समय के साथ 2011-12 के 35.9 MMT के उच्चतम स्तर से घटकर 2025-26 में 26 MMT हो गया है।
- Third, demand for **petroleum products/petroleum, oil, and lubricants (PoL)** has increased, thereby generating the need for larger imports.
तीसरा, पेट्रोलियम उत्पादों/पेट्रोलियम, तेल और स्नेहक (PoL) की मांग बढ़ी है, जिससे अधिक आयात की आवश्यकता उत्पन्न हुई है।

Build reserves

भंडारों का निर्माण करें

- The **current account deficit** was **0.6% of GDP in 2025-26**, with the fourth quarter showing a surplus of **0.7% of GDP**.
चालू खाता घाटा 2025-26 में GDP का 0.6% था, जबकि चौथी तिमाही में GDP का 0.7% अधिशेष दर्ज किया गया।

What does the lifting of gas curbs mean?

What led to the lifting of restrictions on energy supply imposed following the West Asia crisis?

ISS III: Economy
Debayani Tewari

The story so far:

On July 4, 2026, the government lifted emergency curbs it had imposed on the supply of natural gas during the West Asia crisis in March. It cited "ceasefire and negotiations" and the resumption of "sea traffic through the Strait of Hormuz" to restore gas supplies to fertilizer plants, refineries, distributors and industrial users. The Petroleum and Natural Gas Ministry, in a notification, amended the Natural Gas (Supply Regulation) Order, 2026, and omitted provisions that had prioritised sale of domestically produced natural gas and imported Liquefied Natural Gas (LNG) as per a priority list released by the government during the U.S.-Israel war on Iran.

On March 12, Union Minister for Petroleum and Natural Gas Hardeep Singh Puri told Parliament about the "immediate priority sequence".

"Domestic piped gas to homes and CNG for vehicles receive 100% supply with no cuts. Industrial and manufacturing consumers will receive up to 80% of their previous six-month average. Fertilizer plants will receive up to 70%, protecting the agricultural input chain ahead of the sowing season. Refineries and petrochemical units absorb a managed reduction, with that gas redirected to higher-priority sectors," he had said.

Which sectors will benefit?

The latest measure follows a series of steps the government has taken to ease the supply of gas in the wake of an improved supply situation. On June 25, it restored the supply of industrial and commercial LPG to the pre-West Asia crisis levels.

The move is expected to benefit the refineries, city gas distributors, and industries such as ceramic. These sectors need reliable supply of natural gas at affordable rates.

According to Prashant Vasishth, senior vice-president at ratings agency ICRA, the biggest beneficiaries of this move will be the industrial and commercial users of natural gas. He said the supplies to fertilizer units and domestic users were all but normalised.

"The emergency measures had affected supplies of city gas distributors to their industrial and commercial clients. There were industries which did not get even alternate fuel to carry out operations. Hotels, for instance, had to stop making items that consumed more fuel," he said.

Gas supplies to ceramic, power, sponge iron and petrochem sectors were curtailed. "So, factories that were operating in reduced capacity can now ramp up their capacities as and when the fuel supplies come in," he said.

When the West Asia crisis peaked in March, ceramic manufacturing units based in Gujarat's Morbi bore the brunt with reports indicating that 600 factories

and 4 lakh workers were affected amid a shortage of propane and natural gas, both used in the production of ceramic.

Which sector uses LNG the most?

Fertilizer plants are known to consume a bulk of India's LNG. In an earlier interaction with *The Hindu* in March, Mr. Vasishth had said, "A little less than 30% of natural gas use goes into making fertilizers, while power plants account for 13% and city gas distribution 21%."

Urea, which has around 46% of nitrogen, is the most common nitrogen fertilizer. It is produced by converting natural gas (methane) into ammonia and then combining it with carbon dioxide. The energy-dependent process, hence, makes LNG a crucial ingredient of the product.

What should be the next step?

India has been diversifying its energy sources. As Mr. Puri put it in a recent blog post, "The widening of our crude basket from 27 countries to 41, the doubling of our import terminals, and the pipelines and reserves built across a decade under Prime Minister Modi were not abstractions when the Strait finally closed; they were the very reason the lights stayed on."

The road ahead now is one of capacity building. As Mr. Puri wrote, "Learning from this experience, we will build additional capabilities to strengthen our energy resilience..."

THE GIST

On July 4, 2026, the government lifted emergency curbs it had imposed on the supply of natural gas during the West Asia crisis, citing "ceasefire and negotiations" and the resumption of "sea traffic through the Strait of Hormuz".

The move is expected to benefit refineries, city gas distributors and industries such as ceramics, which need a reliable supply of natural gas at affordable rates.

08J7. What does the lifting of gas curbs mean?

गैस प्रतिबंधों को हटाने का क्या अर्थ है?

- The **Petroleum and Natural Gas Ministry**, in a notification, amended the **Natural Gas (Supply Regulation) Order, 2026**, and omitted provisions that had prioritised sale of domestically produced natural gas and imported **Liquefied Natural Gas (LNG)** as per a priority list released by the government during the **U.S.-Israel war on Iran**.
पेट्रोलियम और प्राकृतिक गैस मंत्रालय ने एक अधिसूचना में प्राकृतिक गैस (आपूर्ति विनियमन) आदेश, 2026 में संशोधन किया और उन प्रावधानों को हटा दिया जिनमें **ईरान पर अमेरिका-इज़राइल युद्ध** के दौरान सरकार द्वारा जारी प्राथमिकता सूची के अनुसार घरेलू रूप से उत्पादित प्राकृतिक गैस और आयातित तरलीकृत प्राकृतिक गैस (LNG) की बिक्री को प्राथमिकता दी गई थी।

- “Domestic piped gas to homes and CNG for vehicles receive 100% supply with no cuts.”
“घरों के लिए घरेलू पाइप गैस और वाहनों के लिए CNG को बिना किसी कटौती के 100% आपूर्ति प्राप्त होती है।”

Which sector uses LNG the most?

कौन सा क्षेत्र LNG का सबसे अधिक उपयोग करता है?

- Fertilizer plants are known to consume a bulk of **India's LNG**.
उर्वरक संयंत्र **भारत की LNG** का बड़ा हिस्सा उपभोग करने के लिए जाने जाते हैं।
- In an earlier interaction with The Hindu in March, Mr. Vasisht had said, “A little less than **30% of natural gas use goes into making fertilizers, while power plants account for 13% and city gas distribution 21%.**”
मार्च में द हिंदू के साथ पहले की बातचीत में, श्री वशिष्ठ ने कहा था, “प्राकृतिक गैस के उपयोग का **30% से थोड़ा कम हिस्सा** उर्वरक बनाने में जाता है, जबकि बिजली संयंत्रों की हिस्सेदारी **13%** और सिटी गैस वितरण की **21%** है।”
- **Urea**, which has around **46% of nitrogen**, is the most common nitrogen fertilizer.
यूरिया, जिसमें लगभग **46% नाइट्रोजन** होती है, सबसे सामान्य नाइट्रोजन उर्वरक है।
- It is produced by converting natural gas (**methane**) into ammonia and then combining it with carbon dioxide.
इसे प्राकृतिक गैस (**मीथेन**) को अमोनिया में परिवर्तित करके और फिर इसे कार्बन डाइऑक्साइड के साथ मिलाकर बनाया जाता है।

How India's life insurance sector funds government expenditure

A significant share of life insurance premiums is reinvested in securities that finance government expenditure. While the case for deeper insurance penetration is often made in terms of household financial protection, it is equally important for sovereign fiscal stability

GS III: Economy

T.C. Suseel Kumar
R. Sudhakar

When the government borrows, the question that follows is rarely asked aloud: who lends? A large part of the answer is the life insurance sector. Every year, millions of households across India pay premiums into life insurance policies. That money is reinvested, for decades, in the very securities that finance government expenditure – roads, railways, water supplies, hospitals, defence. The household protecting itself against the loss of its breadwinner is simultaneously, and unknowingly, lending to the sovereign (the Central government). Life insurers collectively hold close to a quarter of India's outstanding central government dated securities, based on RBI and IRDAI data – a share that has remained stable even as the total sovereign debt stock expanded by around 40 per cent in three years. This is not a number that appears in budget speeches or parliamentary debates. It is, however, a number that matters.

Patient capital in a volatile world

The stoic and resilient quality of the sector's sovereign support is as significant as its scale. Life insurers write policies with tenures of twenty, thirty, sometimes forty years. Government securities are the natural habitat of long-duration liabilities – the only asset class that absorbs this scale of funds at matching tenures without distorting the market. Unlike foreign portfolio investors, whose appetite fluctuates with global risk sentiment, insurance companies buy and hold. They do not exit when oil prices rise or when a geopolitical event triggers a reassessment of emerging market exposure. Their participation is counter-cyclical by design – stable

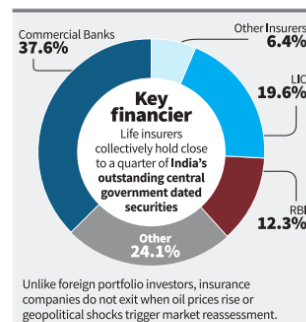
precisely when other buyers become unreliable. A steady domestic base of long-horizon holders reduces rollover risk and moderates borrowing costs across the maturity spectrum.

Life insurers buy when others sell, hold when others exit, and reinvest when others pause. That is the structural consequence of writing long-duration promises to millions of policyholders.

The heavyweight within the sector

The sector's contribution is not evenly distributed. The Life Insurance Corporation of India carries the dominant share – a consequence of its scale, its predominantly participating product mix, and the duration of its in-force book. Its March 2025 regulatory filing with IRDAI (Form L-26) confirms that sovereign paper accounts for nearly 63 per cent of its non-linked policyholder corpus – well above the regulatory minimum, and a direct expression of what long-duration liabilities demand at scale.

LIC holds approximately 19 per cent of all outstanding central government dated securities – a figure confirmed by the RBI's Public Debt Management Quarterly



Source: MoF Status Paper on Government Debt 2023-24.

Report for FY24, the most recently published data. LIC's IRDAI regulatory filings for March 2025 give the institutional reality in absolute terms: ₹20.2 lakh crore in central government securities alone, and ₹32.3 lakh crore in total government and government-guaranteed securities across all funds. These are not estimates. They are figures LIC files with its regulator every quarter and that any researcher can access on the IRDAI website. This makes LIC the single largest institutional holder of Indian government's debt.

Private life insurers, with a higher proportion of unit-linked and shorter-tenure products, contribute a smaller fraction today. As they grow and deepen their traditional offerings, their sovereign allocations will follow the same structural logic.

The regulator has already recognised the systemic dimension of this function: IRDAI designates LIC as a Domestic Systemically Important Insurer every year, describing it as an institution whose distress would cause significant dislocation in the financial system. That designation, rightly made on insurance-sector grounds, points toward a wider truth – the dislocation would extend into the sovereign borrowing programme itself.

Insurers in Japan, the United Kingdom, and South Korea are among the largest holders of their respective governments' long-dated securities, not because regulation mandates it but because their liability profiles demand it. India's life insurance sector is following the same path.

The fragility within the stability

India's life insurance penetration stood at 2.7 per cent of GDP in FY25, the third consecutive year of decline from a pandemic-era peak of 3.2 per cent, against a global life average of 3.0 per

cent. Three regulatory interventions between 2023 and 2024 – restructured distribution economics, taxation on certain high-value policies, and mandatory product repricing, simultaneously, has compressed new businesses. While each was defensible in isolation, their cumulative effect was adverse. The sector is recovering. But the episode illustrates a risk worth noting: when multiple regulatory actions compress new business at once, the household savings that would otherwise have flowed into the sovereign debt market through insurance, reduce or find shorter-duration homes elsewhere. The sovereign borrowing programme may not notice this in the short term. Over a decade, it would.

The unacknowledged pillar

Banking commands policy attention in proportion to its systemic importance. Insurance, which quietly holds close to a quarter of outstanding central government dated securities, does not.

The case for deeper insurance penetration is most often made in the language of household financial protection – the uninsured family, the inadequate sum assured, a mis-sold product or an unsettled claim. These are legitimate concerns. But there is a parallel case, made in the language of sovereign fiscal stability, that has not been fully articulated in public policy discourse. If the reliability of India's domestic sovereign funding base is a macroeconomic priority given the scale of annual borrowing requirements, then the depth and health of the life insurance sector remain directly relevant to that priority.

(T.C. Suseel Kumar is a former Managing Director of LIC India. R Sudhakar is a former Chief Investment Officer and Executive Director of LIC India. The views expressed are personal.)

08J7. How India's life insurance sector funds government expenditure

भारत का जीवन बीमा क्षेत्र सरकारी व्यय को कैसे वित्तपोषित करता है

- A significant share of **life insurance premiums** is reinvested in securities that finance **government expenditure**.

जीवन बीमा प्रीमियम का एक महत्वपूर्ण हिस्सा उन प्रतिभूतियों में पुनर्निवेश किया जाता है, जो **सरकारी व्यय** को वित्तपोषित करती हैं।

- While the case for deeper **insurance penetration** is often made in terms of household financial protection, it is equally important for **sovereign fiscal stability**.

जहां अधिक **बीमा पहुंच** का महत्व अक्सर परिवारों की वित्तीय सुरक्षा के संदर्भ में बताया जाता है, वहीं यह **सरकारी राजकोषीय स्थिरता** के लिए भी उतना ही महत्वपूर्ण है।

- When the **government borrows**, the question that follows is rarely asked aloud: who lends? जब **सरकार उधार लेती है**, तो इसके बाद आने वाला प्रश्न शायद ही खुलकर पूछा जाता है: उधार कौन देता है?
- A large part of the answer is the **life insurance sector**. इसका एक बड़ा उत्तर **जीवन बीमा क्षेत्र** है।

- Every year, millions of households across India pay premiums into **life insurance policies**.
हर वर्ष भारत भर में लाखों परिवार **जीवन बीमा पॉलिसियों** में प्रीमियम का भुगतान करते हैं।
- That money is reinvested, for decades, in the very **securities** that finance government expenditure — **roads, railways, water supplies, hospitals, defence**.
वह धन दशकों तक उन्हीं **प्रतिभूतियों** में पुनर्निवेश किया जाता है, जो सरकारी व्यय — **सड़क, रेलवे, जल आपूर्ति, अस्पताल और रक्षा** — को वित्तपोषित करती हैं।
- The household protecting itself against the loss of its **breadwinner** is simultaneously, and unknowingly, lending to the **sovereign [the Central government]**.
अपने **मुख्य कमाने वाले सदस्य** की हानि से स्वयं को सुरक्षित करने वाला परिवार साथ ही अनजाने में **संप्रभु सरकार [केंद्र सरकार]** को ऋण दे रहा होता है।
- Life insurers collectively hold close to a quarter of India's outstanding **central government dated securities**, based on **RBI and IRDAI data** — a share that has remained stable even as the total sovereign debt stock expanded by around **40 per cent in three years**.
RBI और IRDAI के आंकड़ों के अनुसार जीवन बीमा कंपनियां सामूहिक रूप से भारत की बकाया **केंद्र सरकार की दिनांकित प्रतिभूतियों** का लगभग एक-चौथाई हिस्सा रखती हैं — यह हिस्सा तब भी स्थिर रहा जब कुल सरकारी ऋण भंडार तीन वर्षों में लगभग **40 प्रतिशत** बढ़ गया।

Patient capital in a volatile world अस्थिर दुनिया में धैर्यपूर्ण पूंजी

- The stoic and resilient quality of the sector's **sovereign support** is as significant as its scale.
इस क्षेत्र के **सरकारी समर्थन** की स्थिर और मजबूत प्रकृति इसके आकार जितनी ही महत्वपूर्ण है।
- Life insurers write policies with tenures of **twenty, thirty, sometimes forty years**.
जीवन बीमा कंपनियां **बीस, तीस और कभी-कभी चालीस वर्षों** की अवधि वाली पॉलिसियां जारी करती हैं।
- Government securities are the natural habitat of **long-duration liabilities** — the only asset class that absorbs this scale of funds at matching tenures without distorting the market.
सरकारी प्रतिभूतियां **दीर्घकालिक देनदारियों** के लिए स्वाभाविक स्थान हैं — यह एकमात्र परिसंपत्ति वर्ग है जो बाजार को प्रभावित किए बिना समान अवधि के साथ इतनी बड़ी मात्रा में धन को समाहित कर सकता है।
- Unlike **foreign portfolio investors**, whose appetite fluctuates with global risk sentiment, insurance companies buy and hold.
विदेशी पोर्टफोलियो निवेशकों के विपरीत, जिनकी निवेश रुचि वैश्विक जोखिम भावनाओं के साथ बदलती रहती है, बीमा कंपनियां खरीदती हैं और लंबे समय तक रखती हैं।
- They do not exit when **oil prices rise** or when a geopolitical event triggers a reassessment of **emerging market exposure**.
जब **तेल की कीमतें बढ़ती हैं** या कोई भू-राजनीतिक घटना **उभरते बाजारों में निवेश जोखिम** के पुनर्मूल्यांकन को जन्म देती है, तब भी वे बाहर नहीं निकलती हैं।
- Their participation is **counter-cyclical by design** — stable precisely when other buyers become unreliable.
उनकी भागीदारी स्वभाव से **प्रति-चक्रीय (counter-cyclical)** होती है — वे ठीक उस समय स्थिर रहती हैं जब अन्य खरीदार अविश्वसनीय हो जाते हैं।
- A steady domestic base of **long-horizon holders** reduces rollover risk and moderates borrowing costs across the maturity spectrum.
दीर्घकालिक घरेलू निवेशकों का एक स्थिर आधार पुनर्वित्त जोखिम को कम करता है और विभिन्न अवधियों में उधारी लागत को नियंत्रित करता है।
- Life insurers buy when others sell, hold when others exit, and reinvest when others pause.
जीवन बीमा कंपनियां तब खरीदती हैं जब अन्य बेचते हैं, तब बनाए रखती हैं जब अन्य बाहर निकलते हैं, और तब पुनर्निवेश करती हैं जब अन्य रुक जाते हैं।

- That is the structural consequence of writing **long-duration promises** to millions of policyholders.
यह लाखों पॉलिसीधारकों को दिए गए दीर्घकालिक वादों का संरचनात्मक परिणाम है।

The heavyweight within the sector

क्षेत्र के भीतर प्रमुख शक्ति

- The sector's contribution is not **evenly distributed**.
इस क्षेत्र का योगदान **समान रूप से वितरित नहीं है**।
- The **Life Insurance Corporation of India** carries the dominant share — a consequence of its scale, its predominantly participating product mix, and the duration of its in-force book.
भारतीय जीवन बीमा निगम (LIC) का इसमें प्रमुख हिस्सा है — जो इसके बड़े आकार, मुख्य रूप से सहभागी उत्पाद मिश्रण और इसके सक्रिय बीमा पोर्टफोलियो की अवधि का परिणाम है।
- Its **March 2025 regulatory filing with IRDAI (Form L-26)** confirms that sovereign paper accounts for nearly **63 per cent of its non-linked policyholder corpus** — well above the regulatory minimum, and a direct expression of what long-duration liabilities demand at scale.
इसके **मार्च 2025 में IRDAI को दिए गए नियामकीय दस्तावेज (Form L-26)** पुष्टि करते हैं कि सरकारी प्रतिभूतियाँ इसके **नॉन-लिंक्ड पॉलिसीधारक कोष का लगभग 63 प्रतिशत हिस्सा हैं** — जो नियामकीय न्यूनतम सीमा से काफी अधिक है और बड़े स्तर पर दीर्घकालिक देनदारियों की आवश्यकता को दर्शाता है।
- LIC holds approximately **19 per cent of all outstanding central government dated securities** — a figure confirmed by the RBI's **Public Debt Management Quarterly Report for FY24**, the most recently published data.
LIC के पास सभी बकाया केंद्र सरकार की दिनांकित प्रतिभूतियों का लगभग **19 प्रतिशत हिस्सा है** — जिसकी पुष्टि RBI की नवीनतम प्रकाशित **FY24 सार्वजनिक ऋण प्रबंधन त्रैमासिक रिपोर्ट** करती है।
- LIC's IRDAI regulatory filings for **March 2025** give the institutional reality in absolute terms: **₹20.2 lakh crore in central government securities alone**, and **₹32.3 lakh crore in total government and government-guaranteed securities** across all funds.
LIC की **मार्च 2025** की IRDAI नियामकीय फाइलिंग संस्थागत स्थिति को स्पष्ट रूप से दर्शाती है: केवल केंद्र सरकार की प्रतिभूतियों में **₹20.2 लाख करोड़**, और सभी कोषों में कुल सरकारी तथा सरकार-गारंटीकृत प्रतिभूतियों में **₹32.3 लाख करोड़**।
- These are not estimates.
ये अनुमान नहीं हैं।
- They are figures LIC files with its regulator every quarter and that any researcher can access on the **IRDAI website**.
ये वे आँकड़े हैं जिन्हें LIC हर तिमाही अपने नियामक के पास जमा करता है और जिन्हें कोई भी शोधकर्ता **IRDAI वेबसाइट** पर देख सकता है।
- This makes LIC the **single largest institutional holder of Indian government's debt**.
यह LIC को **भारत सरकार के ऋण का सबसे बड़ा संस्थागत धारक** बनाता है।
- Private life insurers, with a higher proportion of **unit-linked and shorter-tenure products**, contribute a smaller fraction today.
निजी जीवन बीमा कंपनियाँ, जिनमें **यूनिट-लिंक्ड और कम अवधि वाले उत्पादों** का अनुपात अधिक है, आज अपेक्षाकृत कम योगदान देती हैं।
- As they grow and deepen their traditional offerings, their **sovereign allocations** will follow the same structural logic.
जैसे-जैसे वे बढ़ेंगी और अपने पारंपरिक उत्पादों को मजबूत करेंगी, उनके **सरकारी प्रतिभूतियों में आवंटन** भी इसी संरचनात्मक तर्क का अनुसरण करेंगे।
- The regulator has already recognised the **systemic dimension** of this function.
नियामक ने पहले ही इस भूमिका के **प्रणालीगत महत्व** को पहचान लिया है।

- IRDAI designates LIC as a **Domestic Systemically Important Insurer** every year, describing it as an institution whose distress would cause significant dislocation in the financial system.
IRDAI हर वर्ष LIC को घरेलू प्रणालीगत रूप से महत्वपूर्ण बीमाकर्ता घोषित करता है, इसे ऐसी संस्था बताता है जिसकी कठिनाई वित्तीय प्रणाली में महत्वपूर्ण अस्थिरता पैदा कर सकती है।
- That designation, rightly made on insurance-sector grounds, points toward a wider truth — the dislocation would extend into the **sovereign borrowing programme** itself.
यह दर्जा, जो बीमा क्षेत्र के आधार पर उचित रूप से दिया गया है, एक व्यापक सच्चाई की ओर संकेत करता है — अस्थिरता स्वयं सरकारी उधारी कार्यक्रम तक फैल सकती है।
- Insurers in **Japan, the United Kingdom, and South Korea** are among the largest holders of their respective governments' long-dated securities, not because regulation mandates it but because their liability profiles demand it.
जापान, यूनाइटेड किंगडम और दक्षिण कोरिया में बीमा कंपनियाँ अपनी-अपनी सरकारों की दीर्घकालिक प्रतिभूतियों की सबसे बड़ी धारकों में शामिल हैं, इसलिए नहीं कि नियम ऐसा अनिवार्य करते हैं बल्कि इसलिए कि उनकी देनदारी संरचना इसकी मांग करती है।
- India's **life insurance sector** is following the same path.
भारत का जीवन बीमा क्षेत्र भी इसी मार्ग का अनुसरण कर रहा है।

The fragility within the stability

स्थिरता के भीतर मौजूद कमजोरी

- India's life insurance penetration stood at **2.7 per cent of GDP in FY25**, the third consecutive year of decline from a pandemic-era peak of **3.2 per cent**, against a global life average of **3.0 per cent**.
भारत में जीवन बीमा पहुँच FY25 में GDP के 2.7 प्रतिशत पर रही, जो महामारी काल के उच्चतम स्तर 3.2 प्रतिशत से लगातार तीसरे वर्ष गिरावट थी, जबकि वैश्विक जीवन बीमा औसत 3.0 प्रतिशत है।
- Three regulatory interventions between **2023 and 2024** — restructured distribution economics, taxation on certain high-value policies, and mandatory product repricing, simultaneously, has compressed new businesses.
2023 और 2024 के बीच तीन नियामकीय हस्तक्षेप — वितरण अर्थव्यवस्था का पुनर्गठन, कुछ उच्च-मूल्य वाली पॉलिसियों पर कराधान और अनिवार्य उत्पाद पुनर्मूल्यांकन — ने एक साथ नए व्यवसायों को सीमित कर दिया।
- While each was defensible in isolation, their **cumulative effect was adverse**.
हालाँकि प्रत्येक कदम अलग-अलग रूप से उचित था, लेकिन उनका संयुक्त प्रभाव प्रतिकूल रहा।
- The sector is recovering.
यह क्षेत्र सुधार कर रहा है।
- But the episode illustrates a risk worth noting.
लेकिन यह घटना एक ध्यान देने योग्य जोखिम को दर्शाती है।
- When multiple regulatory actions compress new business at once, the **household savings** that would otherwise have flowed into the sovereign debt market through insurance, reduce or find shorter-duration homes elsewhere.
जब कई नियामकीय कदम एक साथ नए व्यवसाय को सीमित करते हैं, तो घरेलू बचत, जो अन्यथा बीमा के माध्यम से सरकारी ऋण बाजार में जाती, घट जाती है या कहीं और अल्पकालिक निवेशों में चली जाती है।
- The **sovereign borrowing programme** may not notice this in the short term.
सरकारी उधारी कार्यक्रम को अल्पावधि में इसका प्रभाव महसूस नहीं हो सकता।
- Over a decade, it would.
लेकिन एक दशक में इसका प्रभाव दिखाई देगा।

The unacknowledged pillar

अस्वीकृत लेकिन महत्वपूर्ण स्तंभ



- Banking commands policy attention in proportion to its **systemic importance**.
बैंकिंग को इसके **प्रणालीगत महत्व** के अनुसार नीतिगत ध्यान मिलता है।
- Insurance, which quietly holds close to a quarter of outstanding **central government dated securities**, does not.
बीमा क्षेत्र, जो चुपचाप बकाया **केंद्र सरकार की दिनांकित प्रतिभूतियों** के लगभग एक-चौथाई हिस्से को रखता है, उसे ऐसा ध्यान नहीं मिलता।
- The case for deeper insurance penetration is most often made in the language of **household financial protection** — the uninsured family, the inadequate sum assured, a mis-sold product or an unsettled claim.
बीमा की अधिक पहुँच के पक्ष में तर्क अक्सर **घरेलू वित्तीय सुरक्षा** की भाषा में दिए जाते हैं — बिना बीमा वाले परिवार, अपर्याप्त बीमा राशि, गलत तरीके से बेचा गया उत्पाद या लंबित दावा।
- These are legitimate concerns.
ये उचित चिंताएँ हैं।
- But there is a parallel case, made in the language of **sovereign fiscal stability**, that has not been fully articulated in public policy discourse.
लेकिन **सरकारी राजकोषीय स्थिरता** के संदर्भ में एक समानांतर तर्क भी है, जिसे सार्वजनिक नीति चर्चा में पूरी तरह प्रस्तुत नहीं किया गया है।

Upcoming Index of Services Production is expected to rely heavily on GST figures

GS III: Economy
The Hindu Bureau
NEW DELHI

The upcoming Index of Services Production (ISP) will rely heavily on Goods and Services Tax (GST) data to arrive at its estimates of services sector production, the report of the technical committee tasked with designing the index framework has said.

Where GST data is not available, the index will use a combination of administrative data and the Annual Survey of Incorporated Services Sector Enterprises (ASISSE), which would make the index a “unique blend” of multiple data sources and methodologies, according to the report.

The first data release of the index, which is the first such attempt at consistently and periodically quantifying the formal services sector, will be on July 29.

“The major source of



The sample drawn for the ASISSE is also based on the framework set out by the GSTN.

data for compilation of ISP is GST,” the report noted. It did, however, acknowledge this approach would leave out some sectors.

“Coverage under GST by definition is restricted to the entities registered with the GST,” the report noted. “In India, in case of services or mixed supplies, registration under the GST Act is not mandatorily required for small businesses having all-India aggregate turnover below ₹20 lakh

(₹10 lakh if the business is in the States of Manipur, Mizoram, Nagaland and Tripura).”

It further said the sample drawn for the ASISSE is also based on the framework set out by the GST Network.

Only formal sector

“Thus, these two sources cover the formal sector enterprises registered under GST Act/Companies Act only,” the report said.

“Based upon these considerations, the Technical Advisory Committee of the ISP recommended the coverage of the ISP may be treated as covering the formal sector.”

In other words, the ISP should not be treated as a measure of the informal services sector in India.

The committee recommended the ASISSE be used to provide data on health residential care and the education sector.

• If the reliability of India's **domestic sovereign funding base** is a macroeconomic priority given the scale of annual borrowing requirements, then the depth and health of the life insurance sector remain directly relevant to that priority.

यदि वार्षिक उधारी आवश्यकताओं के पैमाने को देखते हुए भारत के **घरेलू सरकारी वित्तपोषण आधार** की विश्वसनीयता एक व्यापक आर्थिक प्राथमिकता है, तो जीवन बीमा क्षेत्र की गहराई और मजबूती सीधे तौर पर उस प्राथमिकता से जुड़ी हुई है

08J7. Upcoming Index of Services Production is expected to rely heavily on GST figures

आगामी सेवा उत्पादन सूचकांक (Index of Services Production) के लिए GST आंकड़ों पर भारी निर्भरता रहने की संभावना

• The upcoming **Index of Services Production (ISP)** will rely heavily on **Goods and Services**

Tax (GST) data to arrive at its estimates of **services sector production**, the report of the **technical committee** tasked with designing the **index framework** has said.



आगामी सेवा उत्पादन सूचकांक (ISP), सेवा क्षेत्र के उत्पादन के अपने अनुमान तैयार करने के लिए वस्तु एवं सेवा कर (GST) के आंकड़ों पर काफी हद तक निर्भर करेगा, ऐसा सूचकांक ढांचे को तैयार करने के लिए गठित तकनीकी समिति की रिपोर्ट में कहा गया है।

- Where **GST** data is not available, the index will use a combination of **administrative data** and the **Annual Survey of Incorporated Services Sector Enterprises (ASISSE)**, which would make the index a “**unique blend**” of multiple data sources and methodologies, according to the report.
जहाँ **GST** के आंकड़े उपलब्ध नहीं होंगे, वहाँ यह सूचकांक प्रशासनिक आंकड़ों तथा **Annual Survey of Incorporated Services Sector Enterprises (ASISSE)** के संयोजन का उपयोग करेगा, जिससे रिपोर्ट के अनुसार यह सूचकांक अनेक डेटा स्रोतों और कार्यप्रणालियों का एक “अद्वितीय मिश्रण” बन जाएगा।
- The **first data release** of the index, which is the first such attempt at consistently and periodically quantifying the **formal services sector**, will be on **July 29**.
इस सूचकांक का पहला डेटा जारी किया जाना, जो औपचारिक सेवा क्षेत्र का लगातार और समय-समय पर मात्रात्मक आकलन करने का पहला प्रयास है, 29 जुलाई को होगा।
- “The major source of data for compilation of **ISP** is **GST**,” the report noted.
रिपोर्ट में कहा गया, “**ISP** के संकलन के लिए आंकड़ों का प्रमुख स्रोत **GST** है।”
- It did, however, acknowledge this approach would leave out some sectors.
हालाँकि, इसमें यह भी स्वीकार किया गया कि यह दृष्टिकोण कुछ क्षेत्रों को शामिल नहीं कर पाएगा।
- “Coverage under **GST** by definition is restricted to the entities registered with the **GST**,” the report noted.
रिपोर्ट में कहा गया, “परिभाषा के अनुसार **GST** के अंतर्गत कवरेज केवल **GST** में पंजीकृत संस्थाओं तक सीमित है।”
- “In India, in case of **services** or **mixed supplies**, registration under the **GST Act** is not mandatorily required for **small businesses** having all-India aggregate turnover below **₹20 lakh (₹10 lakh if the business is in the States of Manipur, Mizoram, Nagaland and Tripura)**.
“भारत में सेवाओं या मिश्रित आपूर्ति के मामले में, **GST अधिनियम** के तहत पंजीकरण उन छोटे व्यवसायों के लिए अनिवार्य नहीं है जिनका अखिल भारतीय कुल कारोबार **₹20 लाख** से कम है (यदि व्यवसाय मणिपुर, मिजोरम, नागालैंड और त्रिपुरा राज्यों में है तो **₹10 लाख**)।”
- It further said the sample drawn for the **ASISSE** is also based on the framework set out by the **GST Network**.
आगे कहा गया कि **ASISSE** के लिए चुना गया नमूना भी **GST Network** द्वारा निर्धारित ढांचे पर आधारित है।

Only formal sector केवल औपचारिक क्षेत्र

- “Thus, these two sources cover the **formal sector enterprises** registered under **GST Act/Companies Act** only,” the report said.
रिपोर्ट में कहा गया, “इस प्रकार, ये दोनों स्रोत केवल **GST अधिनियम/कंपनी अधिनियम** के अंतर्गत पंजीकृत औपचारिक क्षेत्र के उद्यमों को ही कवर करते हैं।”
- “Based upon these considerations, the **Technical Advisory Committee** of the **ISP** recommended the coverage of the **ISP** may be treated as covering the **formal sector**.
“इन विचारों के आधार पर, **ISP** की तकनीकी सलाहकार समिति ने अनुशंसा की कि **ISP** की कवरेज को औपचारिक क्षेत्र को कवर करने वाला माना जाए।”
- In other words, the **ISP** should not be treated as a measure of the **informal services sector** in India.
दूसरे शब्दों में, **ISP** को भारत के अनौपचारिक सेवा क्षेत्र का मापदंड नहीं माना जाना चाहिए।

- The committee recommended the **ASISSE** be used to provide data on **health residential care** and the **education sector**.
समिति ने अनुशंसा की कि **ASISSE** का उपयोग **स्वास्थ्य आवासीय देखभाल** तथा **शिक्षा क्षेत्र** से संबंधित आंकड़े उपलब्ध कराने के लिए किया जाए।

GS Paper III: Science and Technology		08 July 2026
TOPICS COVERED		
08J7	Contact lost with Drishti, world's first OptoSAR satellite विश्व के पहले OptoSAR उपग्रह दृष्टि से संपर्क टूट गया	
08J7	Finerenone helps slow kidney disease in patients without diabetes फिनरेनोन मधुमेह रहित रोगियों में गुर्दे की बीमारी को धीमा करने में मदद करता है	
08J7	When might life on the earth end? पृथ्वी पर जीवन कब समाप्त हो सकता है?	

Contact lost with Drishti, world's first OptoSAR satellite

GS III: S&T

Hemanth C.S.
BENGALURU

The Bengaluru-based space start-up GalaxEye has lost contact with Mission Drishti, the world's first OptoSAR satellite, as it encountered an anomaly following a geomagnetic solar storm, the company said on Tuesday.

Mission Drishti, which was launched in May, is also India's largest privately developed earth observation satellite.

"In the final stage of LEOP (Launch and Early Orbit Phase), the maiden spacecraft encountered an anomaly following a geomagnetic solar storm. Initial root cause analysis indicates that radiation effects associated with the event likely impacted a critical onboard system," the company said.

It said subsequently, communication with the



Mission Drishti is also India's largest privately developed Earth observation satellite.

spacecraft became intermittent and was eventually lost. "While recovery efforts are ongoing, the likelihood of recovery currently appears low," it added.

Mission Drishti was launched on May 3 aboard a Falcon 9 by SpaceX from Vandenberg, California. The satellite integrated electro-optical (EO) and synthetic aperture radar (SAR) sensors into a single operational platform.

08J7. Contact lost with Drishti, world's first OptoSAR satellite

विश्व के पहले OptoSAR उपग्रह दृष्टि से संपर्क टूट गया

- The Bengaluru-based space start-up **GalaxEye** has lost contact with **Mission Drishti**, the world's first **OptoSAR satellite**, as it encountered an anomaly following a **geomagnetic solar storm**, the company said on Tuesday.

बेंगलुरु स्थित अंतरिक्ष स्टार्ट-अप **GalaxEye** ने मंगलवार को कहा कि भू-चुंबकीय सौर तूफान के बाद आई तकनीकी समस्या के कारण उसका मिशन दृष्टि, विश्व के पहले OptoSAR उपग्रह, से संपर्क टूट गया है।

- Mission Drishti**, which was launched in May, is also India's largest privately developed **earth observation satellite**.

मई में लॉन्च किया गया मिशन दृष्टि भारत का सबसे बड़ा निजी रूप से विकसित पृथ्वी अवलोकन उपग्रह भी है।

- "In the final stage of **LEOP (Launch and Early Orbit Phase)**, the maiden spacecraft encountered an anomaly following a **geomagnetic solar storm**."

"**LEOP (लॉन्च एंड अर्ली ऑर्बिट फेज)** के अंतिम चरण में, इस पहले अंतरिक्ष यान को भू-चुंबकीय सौर तूफान के बाद एक तकनीकी समस्या का सामना करना पड़ा।"

- Mission Drishti** was launched on **May 3** aboard a **Falcon 9** by **SpaceX** from Vandenberg, California.

मिशन दृष्टि को 3 मई को कैलिफोर्निया के वेंडेनबर्ग से **SpaceX** के **Falcon 9** रॉकेट द्वारा लॉन्च किया गया था।

- The satellite integrated **electro-optical (EO)** and **synthetic aperture radar (SAR)** sensors into a single operational platform.



इस उपग्रह ने इलेक्ट्रो-ऑप्टिकल (EO) और सिंथेटिक अपर्चर रडार (SAR) सेंसरों को एक ही परिचालन प्लेटफॉर्म में एकीकृत किया था

- An Earth observation satellite is like a camera in space.
- It continuously takes pictures and collects information about the Earth's surface.
- Such satellites are used for **agriculture, disaster management, weather monitoring, border surveillance, mapping, urban planning, and environmental studies.**

Mission Drishti was unique because it combined **Electro-Optical (EO)** and **Synthetic Aperture Radar (SAR)** sensors on a single satellite.

- **Electro-Optical (EO) sensors** work like the camera on a smartphone.
- They capture high-quality images using **sunlight**, so they provide clear pictures during the daytime and in good weather.
- **Synthetic Aperture Radar (SAR)** sends out radio waves and receives the reflected signals.
- Since radio waves can pass through **clouds, smoke, and darkness**, SAR can capture images **day or night and even during bad weather.**

Finerenone helps slow kidney disease in patients without diabetes

Three global studies published in the *New England Journal of Medicine*, *Journal of the American Medical Association*, and *The Lancet* suggest that finerenone, a drug previously used mainly in diabetes-related kidney disease, could help a much broader group of patients

ANIRBAN MUKHOPADHYAY

ANIRBAN MUKHOPADHYAY
NEW DELHI

In chronic kidney disease, the kidneys gradually lose their ability to filter waste from the blood. While diabetes is one of its leading causes, many patients develop the condition because of high blood pressure, autoimmune disorders, or other conditions that damage the kidney's filtering units.

Doctors can slow the disease using medicines that lower blood pressure and newer drugs that lower blood sugar while reducing strain on the kidneys. Yet many patients continue to lose kidney function over time, creating a need for additional treatments that can delay kidney failure.

Beyond diabetes

Now, three global studies published in the *New England Journal of Medicine*, *Journal of the American Medical Association* (JAMA), and *The Lancet* suggest that finerenone, a drug previously used mainly in diabetes-related kidney disease, could help a much broader group of patients.

Across different forms of chronic kidney disease, researchers found that the drug slowed disease progression, reduced protein leakage in urine, and lowered the risk of kidney failure.

"The findings did not come as a complete surprise," Rajiv Agarwal, an emeritus professor of medicine at Indiana University and a co-author of the studies, said.

Finerenone does not target diabetes itself. Instead, it blocks inflammation and scarring inside the kidneys — processes that can occur in many forms of kidney disease, he added.

Evidence across diseases

The first of the three studies, known as FIND-CKD, enrolled 1,584 patients with kidney disease who did not have diabetes. Participants received either finerenone or a placebo in addition to their usual treatment. Researchers found that patients taking finerenone lost kidney function more slowly over nearly three years and were less likely to experience major kidney or heart-related complications.

In another study, researchers focused on more than 900 participants from the FIND-CKD trial who had glomerular diseases, conditions that damage the kidneys' filtering units and are among the leading causes of kidney failure worldwide. These included IgA nephropathy, an autoimmune disease that damages the glomeruli, as well as focal segmental glomerulosclerosis and membranous nephropathy — two other major causes of kidney failure. Finerenone slowed the worsening of kidney disease, reduced protein leakage in urine by about 42%, and lowered the



Patients receiving lifesaving dialysis treatment in the nephrology ward at Stanley Hospital in Chennai, Tamil Nadu. FILE PHOTO

risk of kidney failure or major loss of kidney function in this group.

The findings suggest finerenone's benefits extend beyond any single glomerular disease.

"I wouldn't specifically isolate IgA nephropathy," Prof. Agarwal said. "Anybody who has glomerulonephritis can use this drug. The alternatives are much more expensive. Some targeted therapies for IgA nephropathy cost \$400,000 to \$500,000 a year. How many people can afford that?"

Shared pathway

The third study took a broader view. By combining data from FIND-CKD with two earlier finerenone trials, researchers examined whether the drug was working only in certain kidney diseases or targeting a process common to many of them.

Across 14,574 patients, the benefits remained consistent across different causes and stages of kidney disease and in patients with or without diabetes. The consistency suggested finerenone may be acting on a shared pathway involved in kidney damage rather than on any one diagnosis alone.

Beyond the biology, Prof. Agarwal said the findings reflect a broader shift in medicine away from relying on a single drug and towards combination treatment. Much as cancer specialists use multiple medicines together, kidney specialists increasingly combine drugs that target different aspects of disease.

He cautioned, however, that the findings should not automatically be extended to every kidney disease.

For one, finerenone is not without side effects. The main concern across the studies was hyperkalaemia, or high potassium levels in the blood, which can sometimes trigger dangerous heart rhythm disturbances. About 17% of patients receiving finerenone developed elevated potassium levels but severe cases requiring hospitalisation were uncommon, per Prof. Agarwal.

"The people you won't treat are the people who have potassium that is above normal," he said. "So anyone who has potassium more than 5 — you won't start them on this drug." He was referring to a blood potassium level of 5 millimoles per litre or higher.

That risk can usually be managed with routine blood tests.

For Indian patients, cost and access may become an important part of the conversation. Finerenone is already available in India and currently costs around ₹80-90 a day, Prof. Agarwal said. However, he said he expected the drug to become significantly cheaper once it loses patent protection in 2028.

But even at current prices, Prof. Agarwal said the costs compare favourably with many other kidney therapies. A patient with diabetes-related kidney disease may receive a full course of modern kidney-protective therapy for less than ₹200 a day in India. Patients without diabetes could potentially be treated for

around ₹100 a day, he said.

Detecting the smoke

Yet Prof. Agarwal argued that the larger challenge was not treatment but detection.

The problem may be particularly acute in India, where people appear more genetically susceptible to diabetes and high blood pressure than many Western populations and where the prevalence of both conditions is rising rapidly. Many patients learn they have kidney disease only after substantial damage has already occurred. The growing number of effective therapies, he said, makes early diagnosis more important than ever.

"The people who are really going to make a difference are not the nephrologists but the primary care doctors," he said.

Patients with diabetes and high blood pressure often spend years under the care of family physicians before ever seeing a kidney specialist. A simple, routine urine test that checks for protein leakage can identify kidney damage at a stage when treatment is most effective.

"We must detect the smoke before it becomes a fire," he said. The message is especially important now because doctors increasingly have multiple therapies capable of slowing kidney disease once it is detected.

(Anirban Mukhopadhyay is a geneticist by training and science communicator from New Delhi. anirban.genetics@south.du.ac.in)

THE GIST

Across different forms of chronic kidney disease, researchers found that finerenone slowed disease progression, reduced protein leakage in urine, and lowered the risk of kidney failure

Finerenone, researchers say, does not target diabetes itself. Instead, it blocks inflammation and scarring inside the kidneys — processes that can occur in many forms of kidney disease

The drug is already available in India and currently costs around ₹80-90 a day. However, it is expected to become significantly cheaper once it loses patent protection in 2028

08J7. Finerenone helps slow kidney disease in patients without diabetes फिनरेनोन मधुमेह रहित रोगियों में गुर्दे की बीमारी को धीमा करने में मदद करता है

- Three global studies published in the *New England Journal of Medicine*, *Journal of the American Medical Association*, and *The Lancet* suggest that **finerenone**, a drug previously used mainly in **diabetes-related kidney disease**, could help a much broader group of patients.

न्यू इंग्लैंड जर्नल ऑफ मेडिसिन, जर्नल ऑफ द अमेरिकन मेडिकल एसोसिएशन और द लैंसेट में प्रकाशित तीन वैश्विक अध्ययनों से पता चलता है कि फिनरेनोन, जो पहले मुख्य रूप से मधुमेह से संबंधित गुर्दे की बीमारी में उपयोग की जाने वाली दवा थी, रोगियों के एक बहुत बड़े समूह की सहायता कर सकती है।

- In **chronic kidney disease**, the kidneys gradually lose their ability to **filter waste from the blood**.

दीर्घकालिक गुर्दा रोग में, गुर्दे धीरे-धीरे रक्त से अपशिष्ट पदार्थों को छानने की अपनी क्षमता खो देते हैं।

- While **diabetes** is one of its leading causes, many patients develop the condition because of **high blood pressure, autoimmune disorders, or other conditions** that damage the kidney's filtering units.



हालांकि मधुमेह इसके प्रमुख कारणों में से एक है, कई रोगियों में यह स्थिति उच्च रक्तचाप, स्व-प्रतिरक्षित विकारों या अन्य स्थितियों के कारण विकसित होती है, जो गुर्दे की छानने वाली इकाइयों को नुकसान पहुंचाती हैं।

- Doctors can slow the disease using medicines that lower **blood pressure** and newer drugs that lower **blood sugar** while reducing strain on the kidneys.
डॉक्टर रक्तचाप को कम करने वाली दवाओं और नई दवाओं का उपयोग करके इस बीमारी को धीमा कर सकते हैं, जो रक्त शर्करा को कम करने के साथ-साथ गुर्दों पर पड़ने वाले दबाव को कम करती हैं।
- Across different forms of **chronic kidney disease**, researchers found that the **drug slowed disease progression**, reduced **protein leakage in urine**, and lowered the risk of **kidney failure**.
दीर्घकालिक गुर्दा रोग के विभिन्न रूपों में, शोधकर्ताओं ने पाया कि इस दवा ने रोग की प्रगति को धीमा किया, मूत्र में प्रोटीन रिसाव को कम किया और गुर्दे की विफलता के जोखिम को घटाया।
- Participants received either **finerenone** or a **placebo** in addition to their usual treatment. प्रतिभागियों को उनके सामान्य उपचार के अतिरिक्त या तो फिनेरिनोन या प्लेसिबो दिया गया।
- **Finerenone slowed the worsening of kidney disease**, reduced **protein leakage in urine by about 42%**, and lowered the risk of kidney failure or major loss of kidney function in this group.
फिनेरिनोन ने इस समूह में गुर्दे की बीमारी के बिगड़ने की गति को धीमा किया, मूत्र में प्रोटीन रिसाव को लगभग 42% तक कम किया, और गुर्दा विफलता या गुर्दे की कार्यक्षमता में बड़ी कमी के जोखिम को घटाया।

When might life on the earth end?

GS III: S&T
Vasudevan Mukundar

Researchers from the U.S. have estimated how long photosynthetic life will last on the earth. As the sun ages, it also becomes brighter, eventually emitting a colour too hot for plants to survive.

Previous studies had tried to answer this question using simplified climate models, finding the biosphere's twilight could occur in 100 million to 900 million years. The new study made use of a more sophisticated model, which also accounted for the effects of clouds, humidity, and planetary circulation on temperature. The new estimate: around 1.68 billion years for land plants and total extinction by 1.87 billion years.

The researchers explored two primary trajectories of future climate. The first, called strong weathering, assumed the planet's carbon cycle could successfully draw carbon dioxide out of the atmosphere to offset the sun's heat. While the traditional minimum for plant survival is 10 parts per million (ppm) of carbon dioxide, the authors suggested that crassulacean acid metabolism plants and certain aquatic species could even survive at as low as 1 ppm. This could extend the lifespan of the vegetative biosphere to around 1.84 billion years.

In the second trajectory, weak weathering, carbon dioxide levels



Plants need at least around 10 ppm of carbon dioxide in the air to survive. MICK HAUP/UNSPASH

remained constant while the temperature rose. In around 1.68 billion years, the global average surface temperature reaches the thermal limit for complex life. Around 1.87 billion years from now, the climate becomes too hot for all land plants, marking the end of the vegetative biosphere. And in 2.1 billion years, the earth begins losing its oceans to space.

For feedback and suggestions
for 'Science', please write to
science@thehindu.co.in with the
subject 'Daily page'

survive at as low as **1 ppm**.

08J7. When might life on the earth end?

पृथ्वी पर जीवन कब समाप्त हो सकता है?

- Previous studies had tried to answer this question using **simplified climate models**, finding the biosphere's twilight could occur in **100 million to 900 million years**.

पिछले अध्ययनों ने इस प्रश्न का उत्तर सरल जलवायु मॉडलों का उपयोग करके देने का प्रयास किया था, जिनमें पाया गया कि जैवमंडल का अंतिम चरण 100 मिलियन से 900 मिलियन वर्षों में आ सकता है।

- The **new study made use of a more sophisticated model**, which also accounted for the effects of **clouds, humidity, and planetary circulation** on temperature.

नए अध्ययन में एक अधिक उन्नत मॉडल का उपयोग किया गया, जिसमें तापमान पर बादलों, आर्द्रता और ग्रहों के परिसंचरण के प्रभावों को भी शामिल किया गया।

- While the traditional minimum for plant survival is **10 parts per million (ppm) of carbon dioxide**, the authors suggested that **crassulacean acid metabolism plants** and certain aquatic species could even



हालाँकि पौधों के जीवित रहने के लिए पारंपरिक न्यूनतम सीमा कार्बन डाइऑक्साइड की 10 पार्ट्स प्रति मिलियन (ppm) मानी जाती है, लेखकों ने सुझाव दिया कि क्रैसुलेशियन एसिड मेटाबॉलिज्म पौधे और कुछ जलीय प्रजातियाँ 1 ppm तक के निम्न स्तर पर भी जीवित रह सकती हैं।

- In around **1.68 billion years**, the global average surface temperature reaches the **thermal limit for complex life**.
लगभग 1.68 अरब वर्षों में, वैश्विक औसत सतही तापमान जटिल जीवन की तापीय सीमा तक पहुँच जाएगा।
- Around **1.87 billion years from now**, the climate becomes too hot for all land plants, marking the end of the **vegetative biosphere**.
आज से लगभग 1.87 अरब वर्षों बाद, जलवायु सभी स्थलीय पौधों के लिए अत्यधिक गर्म हो जाएगी, जिससे वनस्पति जैवमंडल का अंत हो जाएगा।
- And in **2.1 billion years**, the earth begins losing its oceans to space.
और 2.1 अरब वर्षों में, पृथ्वी अपने महासागरों को अंतरिक्ष में खोना शुरू कर देगी।

GS Paper III: Environment	08 July 2026
TOPICS COVERED	
08J7	Scientists develop a health tracker for high-altitude yaks in Himalayas वैज्ञानिकों ने हिमालय के उच्च हिमालयी याकों के लिए स्वास्थ्य ट्रैकर विकसित किया



Fluffy flock: Atlantic puffins gather on a cliff on Britain's Inner Farne Islands in Northumberland on Monday during the National Trust's 2026 annual census, monitoring the seabirds' breeding population. REUTERS

Fly flock: Atlantic ruins gather on a cliff on Britain's Inner Farne Islands in Northumberland on Monday during the National Trust's 2026 annual census, monitoring the seabirds' breeding population.

- **Atlantic puffins** are small seabirds often called the "**clowns of the sea**" because of their brightly coloured beaks during the breeding season.
- They spend most of their lives at sea and come to coastal cliffs and islands only to breed.
- The **Inner Farne Islands** are part of the **Farne Islands**, an archipelago located off the coast

of Northumberland in northeast England.

Scientists develop a health tracker for high-altitude yaks in Himalayas

GS III: Environment

Rahul Karmakar
GUWAHATI

A team of scientists has developed an Internet of Things (IoT)-based smart system to monitor the health of the high-altitude yaks and keep tabs on their movement near the international border in the Himalayas.

The Indian yak (*Bos grunniens*), often called the 'ship of the Himalayas', is an integral part of the economy of mountain dwellers, who depend on it for meat, milk, and transportation.

Found at altitudes above 8,000 feet, this bovine animal has long been recognised for its resilience and adaptability to extreme conditions. According to the 20th Livestock Census, India has about 58,000 yaks, almost half of them in Ladakh. The rest are found in Arunachal Pradesh, Sikkim, Himachal Pradesh,



Yaks are a vital livelihood resource for communities living in the high-altitude Himalayan region. AP

and Uttarakhand.

Monitoring the health of the yaks across the tough Himalayan expanse has literally been an uphill task. Yak specialists and *brokpas* (yak farmers) also face challenges due to livestock movement in difficult-to-access areas near the international border.

The newly developed technology — a device attached to an animal collar — seeks to reduce these

hurdles, according to Mihir Sarkar, director of the Indian Council of Agricultural Research's National Research Centre on Yak (NRC-Y) at Dirang in Arunachal Pradesh.

He is one of four NRC-Y scientists — the others are Mokhtar Hussain, Vijay Paul, and Dinamani Medhi — who developed the device, along with Rupesh Mandal, Nupur Choudhury, Gita Das, and Jyoti Ku-

mar Barman from the Guwahati-based Assam Don Bosco University.

The scientists said that this IoT-based smart system for geo-fencing and monitoring the health of yaks and predicting the stress they undergo is designed to address the challenges of yak management in remote, high-altitude regions, where continuous physical monitoring of animals is often difficult.

"Yaks are a vital livelihood resource for communities living in the high-altitude Himalayan region. However, yak farmers often face issues in tracking animal movement, detecting health problems at an early stage, and managing herds spread across vast grazing landscapes, often wandering to areas difficult to access," Mr. Sarkar said.

"The newly developed technology can assist farmers by providing timely information," he said.

08J7. Scientists develop a health tracker for high-altitude yaks in Himalayas

वैज्ञानिकों ने हिमालय के उच्च हिमालयी याकों के लिए स्वास्थ्य ट्रैकर विकसित किया

- A team of **scientists** has developed an **Internet of Things (IoT)-based smart system** to **monitor the health of the high-altitude yaks** and keep tabs on their movement near the **international border** in the **Himalayas**.

वैज्ञानिकों की एक टीम ने इंटरनेट ऑफ थिंग्स (IoT) आधारित एक स्मार्ट प्रणाली विकसित की है, जो उच्च हिमालयी याकों के स्वास्थ्य की निगरानी करेगी और हिमालय में अंतरराष्ट्रीय सीमा के पास उनकी गतिविधियों पर नज़र रखेगी।

- The **Indian yak (*Bos grunniens*)**, often called the '**ship of the Himalayas**', is an **integral part of the economy of mountain dwellers, who depend on it for meat, milk, and transportation**.

भारतीय याक (*Bos grunniens*), जिसे अक्सर 'हिमालय का जहाज' कहा जाता है, पर्वतीय क्षेत्रों में रहने वाले लोगों की अर्थव्यवस्था का अभिन्न हिस्सा है, जो मांस, दूध और परिवहन के लिए इस पर निर्भर रहते हैं।

- Found at altitudes above 8,000 feet**, this **bovine animal** has long been **recognised for its resilience and adaptability to extreme conditions**.

8,000 फीट से अधिक ऊँचाई पर पाया जाने वाला यह गोवंशीय पशु लंबे समय से अत्यधिक परिस्थितियों के प्रति अपनी सहनशीलता और अनुकूलन क्षमता के लिए जाना जाता है।

- The newly developed technology — a device attached to an animal collar — seeks to reduce these hurdles, according to **Mihir Sarkar**, director of the **Indian Council of Agricultural Research's National Research Centre on Yak (NRC-Y)** at **Dirang in Arunachal Pradesh**.
अरुणाचल प्रदेश के दिरांग स्थित भारतीय कृषि अनुसंधान परिषद के राष्ट्रीय याक अनुसंधान केंद्र (NRC-Y)



के निदेशक मिहिर सरकार के अनुसार, नई विकसित तकनीक — जो पशु के गले के पट्टे से जुड़ा एक उपकरण है — इन कठिनाइयों को कम करने का प्रयास करती है।

- The scientists said that this **IoT-based smart system for geo-fencing and monitoring the health of yaks and predicting the stress they undergo** is designed to address the challenges of yak management in remote, high-altitude regions, where continuous physical monitoring of animals is often difficult.

वैज्ञानिकों ने कहा कि **जियो-फेंसिंग**, याकों के स्वास्थ्य की निगरानी और उन पर पड़ने वाले तनाव का पूर्वानुमान लगाने वाला यह **IoT आधारित स्मार्ट सिस्टम** दूरस्थ उच्च हिमालयी क्षेत्रों में याक प्रबंधन की चुनौतियों का समाधान करने के लिए तैयार किया गया है, जहाँ पशुओं की निरंतर प्रत्यक्ष निगरानी अक्सर कठिन होती है।

PATRIOTIC IAS