

1 उन्नत उपग्रह संचार प्रौद्योगिकियाँ

- दूरसंचार विभाग (DoT) के TEC ने उन्नत उपग्रह संचार तकनीकों पर कार्यशाला आयोजित की।
- सेवा गुणवत्ता बेंचमार्किंग और भविष्य के नेटवर्क पर जोर।
- दूरस्थ क्षेत्रों, आपदा प्रबंधन, रक्षा और समुद्री संचार के लिए महत्वपूर्ण।
- Direct-to-Device और ब्रॉडबैंड उपग्रह सेवाओं को बढ़ावा।
- डिजिटल समावेशन और सार्वभौमिक कनेक्टिविटी को सशक्त बनाता है।



उपग्रह तकनीक → कनेक्टिविटी → समावेशन → लचीलापन → विकास

2 खाद्यान भंडारण के लिए स्मार्ट वेयरहाउसिंग सिस्टम

- सरकार ने वैज्ञानिक खाद्यान भंडारण हेतु स्मार्ट वेयरहाउसिंग सिस्टम लॉन्च किया।
- रियल-टाइम स्टॉक मॉनिटरिंग और इन्वेंटरी प्रबंधन संभव।
- कटाई के बाद होने वाले नुकसान और रिसाव में कमी।
- पारदर्शिता, दक्षता और जवाबदेही में सुधार।
- खाद्य सुरक्षा और आपूर्ति श्रृंखला को सुदृढ़ बनाता है।



खरीद (Procurement) → भंडारण → निगरानी → वितरण → खाद्य सुरक्षा

3 पीएम-किसान की 23वीं किस्त

- प्रधानमंत्री पश्चिम बंगाल से पीएम-किसान योजना की 23वीं किस्त जारी करेंगे।
- पात्र किसानों को ₹6,000 प्रति वर्ष सहायता।
- तीन समान किस्तों में सीधी लाभ अंतरण (DBT) के माध्यम से भुगतान।
- छोटे और सीमांत किसानों को आय सहायता।
- कृषि स्थिरता और ग्रामीण अर्थव्यवस्था को बल मिलता है।



DBT → आय सहायता → कृषि स्थिरता → ग्रामीण समृद्धि

4 स्मार्ट सीड कोटिंग तकनीक

- ICAR-IIOR ने स्मार्ट सीड कोटिंग तकनीक का प्रदर्शन किया।
- अंकुरण दर और बीज सुरक्षा में सुधार।
- नमी संरक्षण और पोषक तत्वों की बेहतर उपलब्धता।
- जलवायु परिवर्तन के प्रति लचीलापन बढ़ता है।
- फसल उपज और उत्पादकता में वृद्धि।



नवाचार बीज → बेहतर अंकुरण → अधिक उपज → जलवायु लचीलापन

6 अभ्यास 'खान क्वेस्ट 2026'

- भारतीय सेना की टुकड़ी खान क्वेस्ट 2026 में भाग लेगी।
- बहुराष्ट्रीय सैन्य अभ्यास, मेजबान - मंगोलिया।
- शांति स्थापना, काउंटर-इंसर्जेंसी और साकारिक कौशल पर फोकस।
- बहुराष्ट्रीय समन्वय और संयुक्त राष्ट्र मिशन तैयारी को बढ़ावा।
- रक्षा कूटनीति और रणनीतिक साझेदारी को सुदृढ़ करता है।



अंतरसंचालनीयता → शांति स्थापन → युद्ध कौशल → वैश्विक साझेदारी

7 NIXI और भारत का इंटरनेट पारिस्थितिकी तंत्र

- NIXI अपना 23वां स्थापना दिवस मना रहा है।
- भारत के इंटरनेट अवसंरचना को मजबूत करने में अहम भूमिका।
- .IN डोमेन प्रबंधन और इंटरनेट एक्सचेंज सेवाएं प्रदान करता है।
- स्थानीय ट्रैफिक एक्सचेंज को बढ़ावा, लेटेंसी और लागत कम करता है।
- सुरक्षित, समावेशी और लचीला इंटरनेट इकोसिस्टम के विकास में योगदान।



स्थानीय ट्रैफिक → कम लागत → तेज इंटरनेट → डिजिटल भारत

8 जलागम प्रबंधन और कृषि लचीलापन

- विश्व बैंक सहायता प्राप्त कार्यक्रम के तहत राष्ट्रीय परामर्श आयोजित।
- जल संरक्षण और भूजल पुनर्भरण में सुधार।
- मृदा अपरदन रोकथाम और मृदा स्वास्थ्य में वृद्धि।
- खूखा लचीलापन और सतत कृषि को बढ़ावा।
- जलवायु-स्मार्ट कृषि और ग्रामीण आजीविका को सुदृढ़ करता है।



जलागम संरक्षण → जल संरक्षण → मृदा संरक्षण → लचीलापन → सतत कृषि

9 एक्विविस बैटरी तकनीक में प्रगति

- किफायती और टिकाऊ एक्विविस बैटरियों के लिए इलेक्ट्रोलाइट इंजीनियरिंग में प्रगति।
- पारंपरिक लिथियम-आयन बैटरियों की तुलना में सुरक्षित।
- कम लागत और पर्यावरण के अनुकूल।
- बड़े पैमाने पर ऊर्जा भंडारण के लिए उपयुक्त।
- EVs, उपभोक्ता इलेक्ट्रॉनिक्स और ग्रिड स्टोरेज में संभावना।



सुरक्षित → सस्ती → ऊर्जा भंडारण → स्वच्छ ऊर्जा → स्थायी भविष्य

अन्य महत्वपूर्ण एक-पंक्तियां (One-Liners)

जैविल एडवांस्ड मैनुफैक्चरिंग सुविधा और निर्यात-केंद्रित डेटा सेंटर इकोसिस्टम (पुणे)

रेलवे द्वारा फ्लाई ऐश का हरित परिवहन आरंभ।



कादियान-ब्यास रेलवे लाइन पुनर्जीवित करने की दिशा में कदम।



हज 2027 रोडमैप की समीक्षा।



भारतीय तटारक्षक द्वारा स्वदेशी एयर कुशन वाहन शामिल।



SC विद्यार्थियों के लिए छात्रवृत्ति कवरेज में विस्तार।



अंतरराष्ट्रीय योग दिवस 2026 की तैयारियों पर जोर।



भारत विल्डकॉन 2026 - वन नेशन, वन एक्सपो।



भारत-अमेरिका तकनीक, नवाचार और सहयोग संबंधों को बल।

1 ADVANCED SATELLITE COMMUNICATION TECHNOLOGIES

- TEC, DoT organized workshop on Advanced Satellite Communication Technologies.
- Focus on service quality benchmarking and future-ready networks.
- Critical for remote connectivity, disaster management, defence & maritime operations.
- Supports Direct-to-Device and broadband satellite services.
- Strengthens Digital India and universal access.



Satellite Tech → Connectivity → Inclusion → Resilience

2 SMART WAREHOUSING SYSTEM FOR FOODGRAIN STORAGE

- Govt launches Smart Warehousing System for scientific storage of foodgrains.
- Enables real-time stock monitoring and inventory management.
- Reduces post-harvest losses and leakages.
- Enhances transparency, efficiency & accountability.
- Strengthens food security and supply chain.



Procurement → Storage → Monitoring → Distribution → Food Security

3 PM-KISAN 23rd INSTALLMENT

- PM will release the 23rd installment of PM-KISAN from West Bengal.
- Provides ₹6,000 per year to eligible farmers.
- Amount transferred in 3 equal installments.
- Ensures direct benefit transfer (DBT).
- Supports small & marginal farmers and rural income stability.



Direct Benefit Transfer → Income Support → Rural Prosperity

4 SMART SEED COATING TECHNOLOGY

- ICAR-IIOR showcases smart seed coating technology.
- Improves germination and seed protection.
- Enhances moisture retention and nutrient use.
- Increases resilience to climate stress.
- Boosts productivity and sustainable agriculture.



Innovative Seeds → Better Establishment → Higher Yield → Resilience

5 COOPERATIVE SECTOR REFORMS

- National roadmap reviewed for strengthening cooperative banking, organic products & cooperative exports.
- Focus on governance, capacity building and digitalization.
- Supports farmers, producers and rural enterprises.
- Promotes sustainable and inclusive growth.
- Strengthens 'Sahakar se Samridhhi' vision.



Cooperation → Credit → Production → Marketing → Prosperity

6 EXERCISE KHAAN QUEST 2026

- Indian Army contingent to participate in Khaan Quest 2026.
- Multinational military exercise hosted by Mongolia.
- Focus on peacekeeping, counter-insurgency and tactical operations.
- Enhances interoperability and UN mission readiness.
- Strengthens defence diplomacy and strategic partnerships.



Interoperability → Peacekeeping → Readiness → Global Partnership

7 NIXI & INDIA'S INTERNET ECOSYSTEM

- NIXI celebrates its 23rd Foundation Day.
- Key role in strengthening India's internet infrastructure.
- Manages .IN domain and Internet Exchange.
- Promotes local traffic exchange and reduces latency.
- Drives growth of a secure, inclusive & resilient internet ecosystem.



Local Traffic → Lower Cost → Faster Internet → Digital India

8 WATERSHED MANAGEMENT & AGRICULTURAL RESILIENCE

- National consultation on watershed management under World Bank-assisted programme.
- Improves water conservation and groundwater recharge.
- Prevents soil erosion and enhances soil health.
- Builds drought resilience and sustainable agricultural productivity.
- Supports climate-resilient rural livelihoods.



Watershed → Water Conservation → Soil Protection → Resilience

9 AQUEOUS BATTERY TECHNOLOGY

- Advances in electrolyte engineering for durable & affordable aqueous batteries.
- Safer, low-cost and environmentally friendly.
- Suitable for large-scale energy storage.
- Supports renewable energy integration and grid stability.
- Potential for EVs, consumer electronics and off-grid applications.



Safe & Low-Cost → Energy Storage → Clean Energy → Sustainability



Jabil Advanced Manufacturing Facility & Export-Centric Data Centre Ecosystem in Pune.



Green Transport of Fly Ash by Railways initiative.



Qadian-Beas Railway Line revival gets momentum.



Haj 2027 roadmap reviewed.



Indigenous Air Cushion Vehicle inducted by Coast Guard.



Scholarship coverage expansion for SC students.



Preparations for International Day of Yoga 2026.



Bharat Buildcon 2026 - One Nation, One Expo.



India-US engagement on technology, innovation & collaboration.

Srijan India One

भारत के राज्य

18 जून 2026

असम

पूर्वोत्तर भारत का प्रवेश द्वार



काज़ीरंगा राष्ट्रीय उद्यान



ब्रह्मपुत्र नदी

एक नज़र में

राजधानी	: दिसपुर
सबसे बड़ा शहर	: गुवाहाटी
गठन	: 26 जनवरी 1950
राजभाषा	: असमिया
क्षेत्रफल	: 78,438 वर्ग किमी.
जनसंख्या (2011)	: 3.12 करोड़
जिले	: 35
साक्षरता दर	: 72.19%

त्वरित तथ्य

राज्य पशु	: एक सींग वाला गैंडा
राज्य पक्षी	: श्वेत-पंखी लकड़ी बत्तख
राज्य वृक्ष	: हॉलिंग
राज्य फूल	: फॉक्सटेल ऑर्किड
मुख्य नदी	: ब्रह्मपुत्र
प्रसिद्ध नदी द्वीप	: माजुली (दुनिया का सबसे बड़ा आबाद नदी द्वीप)
प्रसिद्ध उत्पादन	: चाय, मूगा रेशम, तेल एवं प्राकृतिक गैस

इतिहास और विरासत

- ★ प्राचीन कामरूप राज्य (पुराणों और महाकाव्यों में उल्लेखित)
- ★ आहोम वंश का शासन लगभग 600 वर्षों तक
- ★ सराईघाट का युद्ध (1671): लमिंत बोरफुकन के नेतृत्व में आहोमों ने मुगलों को हराया
- ★ श्रीमंत शंकरदेव ने वैष्णव भक्ति आंदोलन चलाया और सत्रों की स्थापना की



प्रमुख पर्यटन स्थल



अर्थव्यवस्था की झलक

- ★ प्रमुख क्षेत्र: चाय, पेट्रोलियम, प्राकृतिक गैस, पर्यटन, हथकरघा, रेशम उत्पादन, कृषि
- ★ ताकत: भारत में चाय का सबसे बड़ा उत्पादक, तेल, गैस और जल संसाधनों में समृद्ध, सामरिक दृष्टि से महत्वपूर्ण
- ★ उभरते क्षेत्र: पर्यटन, बांस उद्योग, अंतर्देशीय जलमार्ग, जैव विविधता आधारित इको-पर्यटन



कृषि

- ★ मुख्य फसलें: धान, दालें, मक्का, सरसों, गन्ना, जूट, चाय, रबर
- ★ विशेष उत्पाद: असम चाय (GI टैग), मूगा रेशम (स्वर्ण रेशम)



संस्कृति और पर्व

- ★ सांस्कृतिक विशेषताएँ: सत्तरिया नृत्य (शास्त्रीय नृत्य), लोक नृत्य - विह, बागुरंबा, झमुर, सत्र - वैष्णव मठ परंपरा, हस्तशिल्प और हथकरघा बुनाई, मूगा रेशम की समृद्ध परंपरा
- ★ प्रमुख पर्व: बोहाय विह (असमिया नव वर्ष), माघ विह (फसल पर्व), काती विह (कृषि पर्व)



पर्यावरण और जैव विविधता

- ★ काज़ीरंगा राष्ट्रीय उद्यान (एक सींग वाले गैंडे के लिए प्रसिद्ध) (यूनेस्को विश्व धरोहर स्थल)
- ★ मानस राष्ट्रीय उद्यान (यूनेस्को विश्व धरोहर स्थल, टाइगर रिज़र्व, बायोस्फीयर रिज़र्व)
- ★ महत्वपूर्ण प्रजातियों - हुल्लोक गिबन, गोल्डन लैंगुर, बंगाल फ्लोरिकन, गौर, हाथी, एशियाई जंगली भैंसा



राजनीति और प्रशासन

विधानमंडल	: एकसदनीय
उच्च न्यायालय	: गौहाटी उच्च न्यायालय (असम, नागालैंड, मेघालय, मणिपुर, त्रिपुरा, मिजोरम एवं अरुणाचल प्रदेश)
राजभाषा	: असमिया



मूल्य संवर्धन (Value Addition)

- ★ असम भारत का सांस्कृतिक, आर्थिक और पारिस्थितिक पुल है जो पूर्वोत्तर को मुख्य भारत से जोड़ता है।
- ★ ब्रह्मपुत्र - क्षेत्र की जीवनरेखा।
- ★ समृद्ध जैव विविधता और प्राकृतिक संसाधनों के साथ सतत विकसन के लिए प्रतिबद्ध।
- ★ "Tea Gardens to Oil Fields - Assam Brews Progress."



क्या आप जानते हैं?

- ★ डिगबोई रिफाइनरी भारत की सबसे पुरानी चालू रिफाइनरी है।
- ★ माजुली द्वीप नदी के कटाव और जलवायु परिवर्तन से खतरे का सामना कर रहा है।
- ★ असम भारत के कुल चाय उत्पादन का 50% से अधिक योगदान देता है।



भारत की चाय राजधानी

“असम केवल एक राज्य नहीं, यह नदियों, संस्कृति, परंपराओं और अदम्य साहस की भूमि है।”



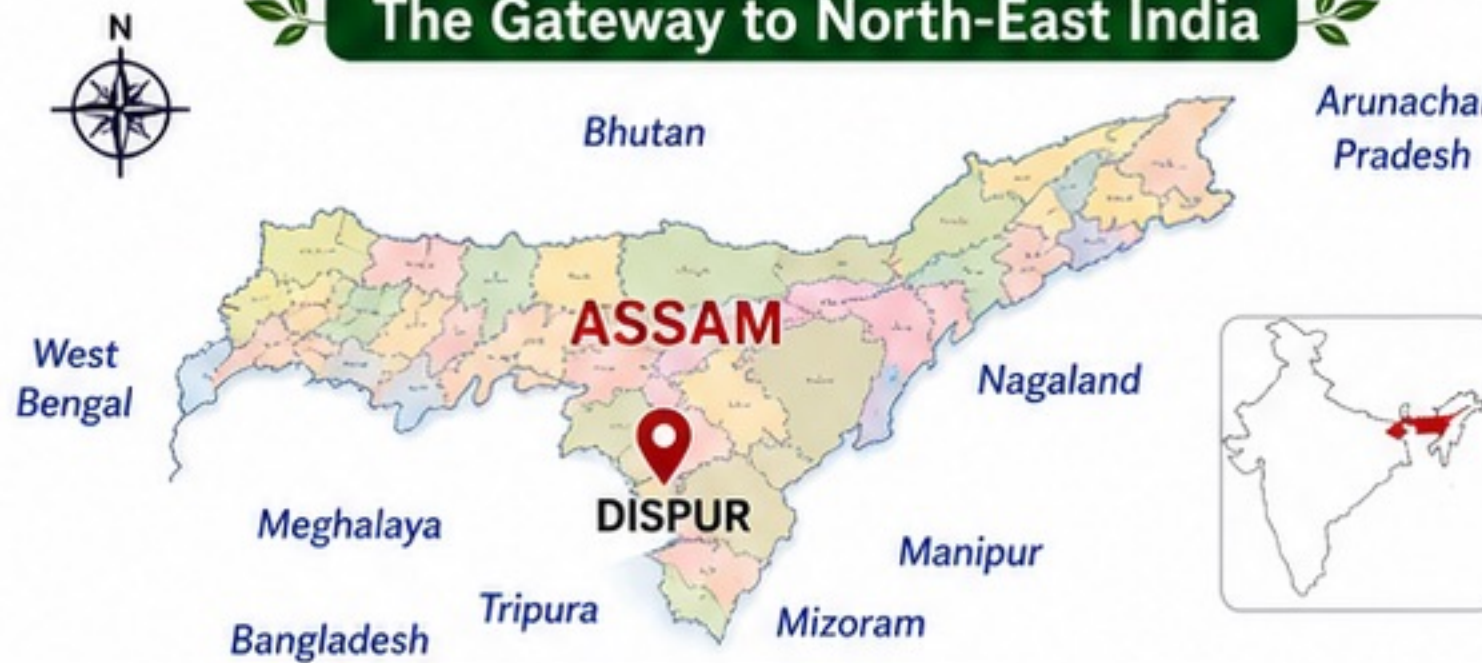
Srijan India One

States of India

18th June 2026

ASSAM

The Gateway to North-East India



Kaziranga National Park



Brahmaputra River

QUICK FACTS

- State Animal : One-horned Rhinoceros
- State Bird : White-winged Wood Duck
- State Tree : Hollong
- State Flower : Foxtail Orchid
- Major River : Brahmaputra
- River Island : Majuli (World's Largest Inhabited River Island)
- Famous For : Tea, Muga Silk, Oil & Natural Gas

AT A GLANCE

- Capital : Dispur
- Largest City : Guwahati
- Formation : 26 Jan 1950
- Official Language : Assamese
- Area : 78,438 sq. km
- Population (2011) : 3.12 Crore
- Districts : 35
- Literacy Rate : 72.19%

HISTORY & LEGACY

- ★ Ancient Kamarupa Kingdom (mentioned in Puranas & Epics)
- ★ Ahom Dynasty ruled for nearly 600 years
- ★ Battle of Saraighat (1671): Ahoms led by Lachit Borphukan defeated the Mughals
- ★ Vaishnavite reformer Srimanta Sankardev founded satras and spread Neo-Vaishnavism



TOP ATTRACTIONS



ECONOMY AT A GLANCE

- Major Sectors : Tea, Petroleum, Natural Gas, Tourism, Handloom, Sericulture, Agriculture
- Strengths : Largest tea producer in India, Rich in oil, gas & hydel resources, Strategic location
- Emerging Areas : Petrochemicals, Bamboo industry, Inland Waterways, Eco-tourism



AGRICULTURE

- Major Crops : Rice, Pulses, Maize, Mustard, Sugarcane, Jute, Tea, Rubber
- Special Products : Assam Tea (GI Tag), Muga Silk (Golden Silk)



CULTURE & FESTIVALS

Cultural Highlights

- Sattriya – Classical Dance Form of Assam
- Folk Dances – Bihu, Bagurumba, Jhumur
- Satras – Vaishnavite monasteries founded by Srimanta Sankardev
- Handloom & Handicrafts : Rich tradition of weaving



Major Festivals

- ★ Bohag Bihu (Assamese New Year)
- ★ Magh Bihu (Harvest Festival)
- ★ Kati Bihu (Agricultural Festival)



ENVIRONMENT & BIODIVERSITY

- Kaziranga NP – Famous for One-horned Rhinoceros (UNESCO World Heritage Site)
- Manas NP – UNESCO World Heritage Site, Tiger Reserve & Biosphere Reserve
- Important Species – Hoolock Gibbon, Golden Langur, Bengal Florican
- Rich wetlands, forests & riverine ecosystems



POLITY & ADMINISTRATION

- Legislature : Unicameral
- High Court : Gauhati High Court (For Assam, Nagaland, Meghalaya, Manipur, Tripura, Mizoram & Arunachal Pradesh)
- Official Language : Assamese



VALUE ADDITION



- ✓ Assam is the cultural, economic and ecological bridge to North-East India.
- ✓ Home to the mighty Brahmaputra – lifeline of the region.
- ✓ Rich in natural resources yet committed to sustainable development.
- ✓ "From Tea Gardens to Oil Fields – Assam Brews Progress."

DID YOU KNOW?

- ★ Digboi Refinery is the oldest operating refinery in India.
- ★ Majuli Island is eroding due to river erosion and climate change.
- ★ Assam accounts for more than 50% of India's total tea production.



“Assam is not just a state, it is a land of rivers, resilience and rich cultural heritage.”



QUESTION 1

What is the minimum number of times one needs to measure to get 298 litres of water from a tank, if the measuring cylinders have capacities 1 litre, 6 litres, 25 litres and 100 litres?

- (a) 4
(b) 5
(c) 9
(d) 13

SOLUTION**Idea:**

Try to form 298 litres using the given measuring cylinders in minimum number of measurements.

Key Observation:

$$298 = 300 - 1 - 1$$

Now, 300 litres can be measured as:

$$100 \text{ L} + 100 \text{ L} + 100 \text{ L}$$

Then subtract two 1-litre measurements.

$$- 1 \text{ L} - 1 \text{ L} -$$

Total Measurements

Cylinder	Use	No. of Times
100 L	100 + 100 + 100	3
1 L	Subtract 1 + 1	2
Total		5

ANSWER: (b) 5**QUESTION 2**

There are four types of weights, namely 1 kg, 2 kg, 5 kg and 10 kg. What is the maximum number of different ways one can measure 20 kg, if at least eight but not more than eleven weights of 1 kg are to be used while measuring?

- (a) 7
(b) 8
(c) 9
(d) 10

SOLUTION**Let:**

a = number of 1 kg weights ($8 \leq a \leq 11$)

b = number of 2 kg weights

c = number of 5 kg weights

d = number of 10 kg weights

$$a + 2b + 5c + 10d = 20$$

Check for each possible value of a:

a (1 kg)	Equation for $2b + 5c + 10d$	Possible (b, c, d)	Ways
8	$2b + 5c + 10d = 12$	(6,0,0), (1,2,0), (1,0,1)	3
9	$2b + 5c + 10d = 11$	(3,1,0)	1
10	$2b + 5c + 10d = 10$	(5,0,0), (0,2,0), (0,0,1)	3
11	$2b + 5c + 10d = 9$	(2,1,0)	1

$$\text{Total number of ways} = 3 + 1 + 3 + 1 = 8$$

ANSWER: (b) 8

प्र. 'डेमोग्राफिक विंटर' (जनसांख्यिकीय शीतकाल) की अवधारणा क्या है? क्या दुनिया ऐसी स्थिति की ओर बढ़ रही है? विस्तार से स्पष्ट कीजिए।

1. परिचय

डेमोग्राफिक विंटर उस स्थिति को कहते हैं जब किसी देश में **कुल प्रजनन दर (TFR) लगातार प्रतिस्थापन स्तर (2.1 बच्चे प्रति महिला)** से कम बनी रहती है, जिससे जनसंख्या घटती है, समाज वृद्ध होता है और कार्यबल सिकुड़ता है।

2. अवधारणा फ्लोचार्ट



3. कारण

सामाजिक कारण

- शादी में देरी
- जीवनशैली में बदलाव
- व्यक्तिगतता (Individualism)
- छोटे परिवार की प्राथमिकता



आर्थिक कारण

- जीवनयापन की उच्च लागत
- महंगी चाइल्डकेयर
- आवास की बढ़ती कीमतें
- नौकरी की असुरक्षा



जनसांख्यिकीय कारण

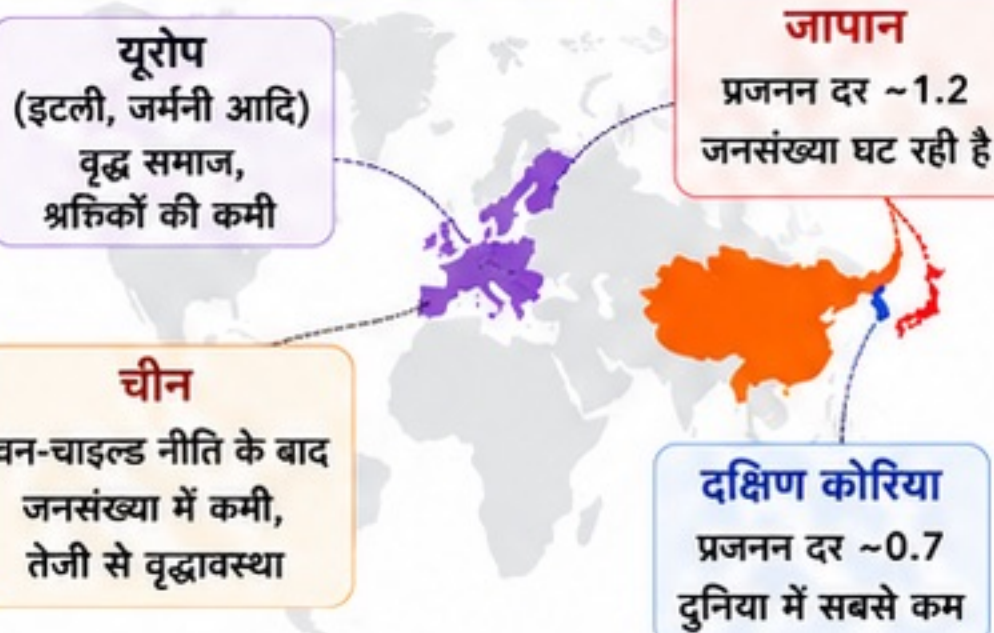
- शहरीकरण
- उच्च शिक्षा का प्रसार
- महिलाओं की कार्यबल में भागीदारी
- गर्भनिरोधक तक पहुँच



4. क्या दुनिया ऐसी स्थिति की ओर बढ़ रही है?

साक्ष्य

- वैश्विक प्रजनन दर: 1950 में ≈ 5 बच्चे/महिला आज ≈ 2.3 बच्चे/महिला
- दुनिया के आधे से अधिक देशों की प्रजनन दर प्रतिस्थापन स्तर (2.1) से कम है।



8. उदाहरण

डेमोग्राफिक विंटर का सामना कर रहे देश



प्रवासन द्वारा कमी की भरपाई करने वाला देश



5. डेमोग्राफिक विंटर के प्रभाव



आर्थिक प्रभाव

- कार्यबल में कमी
- आर्थिक वृद्धि की गति धीमी
- कर आधार (Tax Base) में कमी



सामाजिक प्रभाव

- वृद्ध आश्रित अनुपात में वृद्धि
- पेंशन पर बढ़ता बोझ
- स्वास्थ्य सेवाओं पर अधिक व्यय



रणनीतिक प्रभाव

- महत्वपूर्ण क्षेत्रों में श्रमिकों की कमी
- रक्षा बलों के लिए मानवबल चुनौती
- प्रवासन पर अधिक निर्भरता

6. भारत: वर्तमान स्थिति

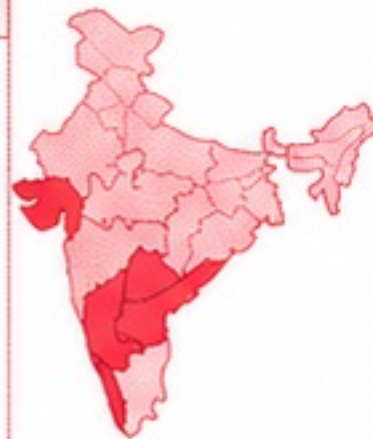
अवसर (Opportunity)

- मध्यम आयु ≈ 28 वर्ष
- दुनिया की सबसे बड़ी कार्यशील आयु जनसंख्या
- जनसांख्यिकीय लाभांश लगभग 2040 के दशक तक



उभरती चिंताएँ

- NFHS-5 के अनुसार:
भारत की कुल प्रजनन दर (TFR) = 2.0
- निम्न प्रतिस्थापन स्तर वाले राज्य:
- केरल
 - तमिलनाडु
 - कर्नाटक
 - पंजाब
 - दिल्ली
 - पश्चिम बंगाल



7. आगे का रास्ता (Way Forward)



9. प्रमुख कीवर्ड (Keywords)

- प्रतिस्थापन प्रजनन दर
- वृद्ध समाज
- आश्रित अनुपात (Dependency Ratio)
- सिल्वर इकॉनॉमी
- जनसंख्या में कमी
- जनसांख्यिकीय लाभांश

10. निष्कर्ष

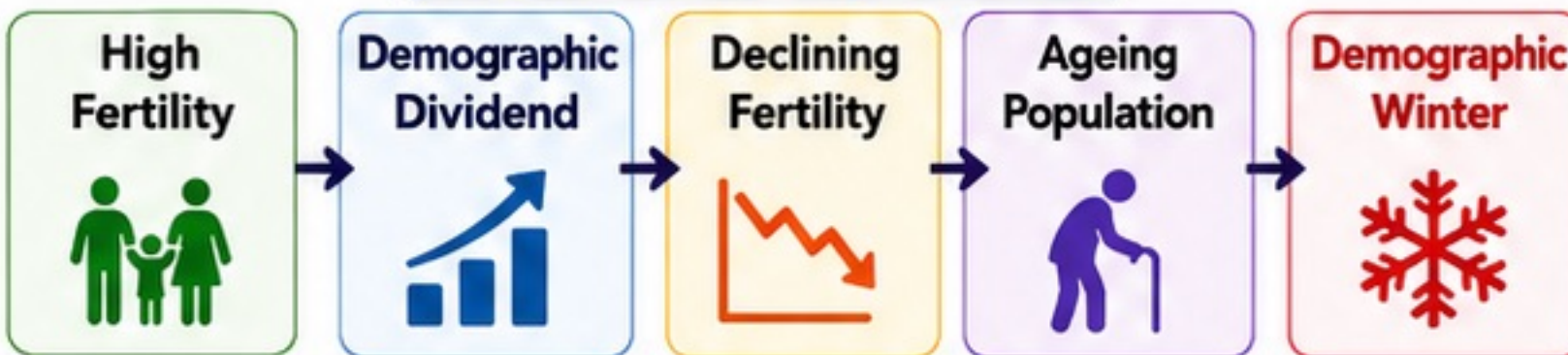
दुनिया के कई देश डेमोग्राफिक विंटर की ओर बढ़ रहे हैं, जहाँ जनसंख्या घट रही है और समाज वृद्ध हो रहा है। भारत को वर्तमान जनसांख्यिकीय लाभांश का अधिकतम उपयोग करके आने वाले समय में आर्थिक शक्ति में परिवर्तन करना होगा, ताकि वृद्ध होती जनसंख्या एक बड़ी चुनौती के रूप में सामने न आए।

Q. What is the concept of a 'demographic winter'? Is the world moving towards such a situation? Elaborate.

1. INTRODUCTION

Demographic Winter = Fertility rate remains below **replacement level (2.1)** for a prolonged period, causing population decline, ageing and workforce shrinkage.

2. CONCEPT FLOWCHART



3. CAUSES

SOCIAL FACTORS

- Delayed marriage
- Lifestyle changes
- Individualism
- Smaller family preference



ECONOMIC FACTORS

- High cost of living
- Expensive childcare
- Housing costs
- Job insecurity



DEMOGRAPHIC FACTORS

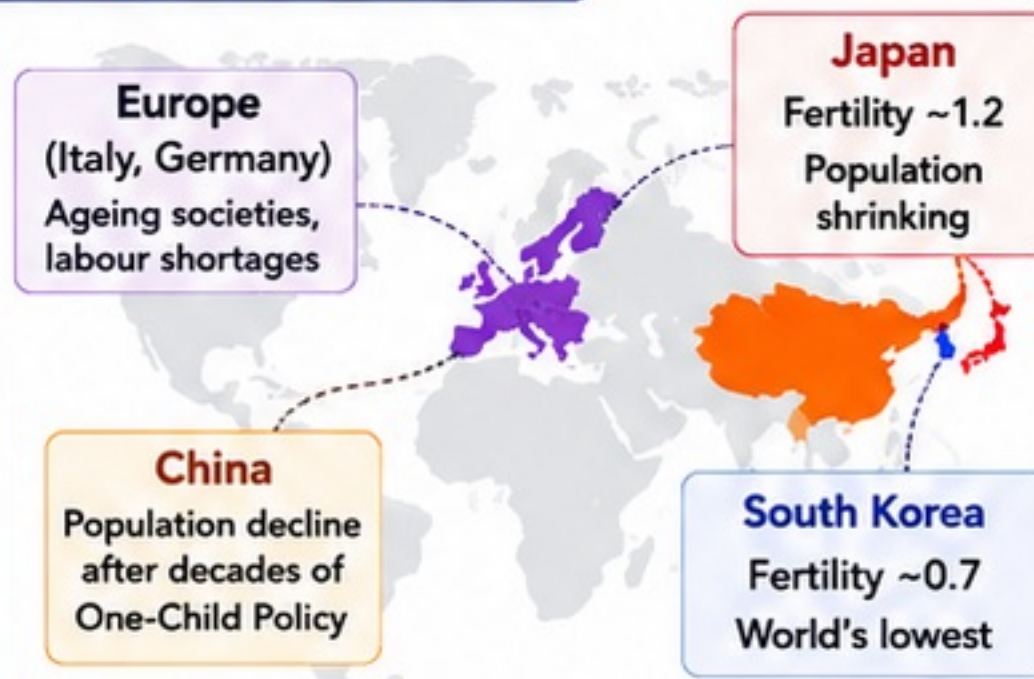
- Urbanisation
- Higher education
- Female workforce participation
- Access to contraception



4. IS THE WORLD MOVING TOWARDS IT?

EVIDENCE

- Global fertility:
1950 ≈ 5 births/woman
Today ≈ 2.3 births/woman
- More than half of countries below replacement fertility.



8. EXAMPLES

COUNTRIES FACING DEMOGRAPHIC WINTER



COUNTRY USING MIGRATION TO OFFSET DECLINE



Canada

5. IMPLICATIONS OF DEMOGRAPHIC WINTER



ECONOMIC

- Shrinking workforce
- Lower growth potential
- Reduced tax base



SOCIAL

- Higher old-age dependency ratio
- Pension burden on working population
- Rising healthcare expenditure



STRATEGIC

- Labour shortages in critical sectors
- Defence manpower challenges
- Increased dependence on migration

6. INDIA: PRESENT POSITION

OPPORTUNITY

- Median age ≈ 28 years
- Largest working-age population in the world
- Demographic dividend till 2040s



EMERGING CONCERNS

NFHS-5:
India TFR = 2.0

Below replacement fertility in:

- Kerala
- Punjab
- Tamil Nadu
- Delhi
- Karnataka
- West Bengal



7. WAY FORWARD



9. VALUE ADDITION

KEYWORDS

- ✓ Replacement Fertility
- ✓ Ageing Society
- ✓ Dependency Ratio
- ✓ Silver Economy
- ✓ Population Decline
- ✓ Demographic Dividend

10. CONCLUSION

While many countries are entering a demographic winter, India currently enjoys a **demographic dividend**. The challenge is to convert this opportunity into long-term economic strength before population ageing emerges as a major constraint.

Know your English



FROM THE ARCHIVES

Know your English

S. Upendran

“Happy new year!”

“A Happy New Year to you too. You don’t look too good. Too much dancing last night?”

“Not really. I stayed awake till 5:00 in the morning. That’s all.”

“You look terrible. Go into the drawing room and take a load off your feet.”

“What load are you talking about?”

“When someone says, ‘get a load off your feet’, it means they want you to sit down and relax.”

“I see. But didn’t you say, ‘take’ a load off your feet the first time?”

“That’s right. You can either say, ‘take a load off your feet’, or ‘get a load off your feet’. Both are acceptable.”

“So, can I tell someone, ‘Come on in, and take a load off your feet’?”

“Yes. Here’s another example. Get a load off your feet and have a drink.”

“A drink! That’s nice. What is it that you are offering?”

“That was just an example.”

“You are such a lousy host. Anyway, what did you do during the Christmas break?”

“Nothing much actually. Just let the grass grow under my feet.”

“What does that mean?”

“It means that I didn’t do anything....”

“...Geetha is the only person I know who doesn’t let the grass grow under her feet.”

“Most people I know who work in Government offices let the grass grow under their feet.”

“Isn’t that what people working in Government Departments are supposed to do? Many of my cousins think that I let the grass grow under my feet. Anand keeps telling me this all the time.”

“How is Anand doing by the way? Does he like the new job?”

“He is still finding his feet.”

“Finding his feet! Has he lost them?”

“Ha! Ha! The expression ‘to find....’

“...I know what the expression ‘to find one’s feet’ means. It means getting used to a new situation. Am I right?”

“Absolutely. When I joined the company, my boss said that I would need time to learn about how the company works. He said that I would find my feet gradually.”

“When my cousin went to the States, she was miserable. But when she called us up last week, she said that she was finally beginning to find her feet.”

“That usually happens to people who push off to the States. First, they hate the place. Later, they fall in love with it and they don’t want to come back home.”

“That’s true.”

“Here’s another example. When my cousin Gayathri was made the Principal of her college, she was all at sea. Now, she is slowly finding her feet.”

“Isn’t she an actress?”

“No, that’s my cousin Ambika. Gayathri is the one who wrote a couple of plays.”

“Does she still write....?”

“...I don’t think so. The last one she wrote, the audience voted with its feet.”

“Another expression with feet?”

“When you ‘vote with your feet’, you show your displeasure about something by walking out. You”

“...in other words, if you don’t like something, you just get up and walk.”

“That’s right. When the superstar’s latest movie was released, a lot of people voted with their feet. Many walked out after the first half an hour.”

“The next time a politician visits our constituency, we should vote with our feet.”

“That’s a good idea!”

Published in The Hindu on January 2, 2001

- Article explains idiomatic expressions using ‘feet’.
- Shows usage through simple conversational examples.
- Useful for improving vocabulary, comprehension & expression.
- Important for Essay, Editorial, Precis & Interview.

- **Get/take a load off your feet** – relax.
- **Let the grass grow under your feet** – do nothing; be idle.
- **Find your feet** – become familiar with a new situation.
- **All at sea** – confused or unsure.
- **Vote with your feet** – show disapproval by leaving.

- Learn idioms in context, not in isolation.
- Use idioms in essays & interviews naturally.
- Helps in comprehension passages (main idea, inference).
- Enhances fluency in spoken & written English.

- **Prelims:** Idioms, Synonyms, Antonyms.
- **Mains (GS Paper 2 – Education):** Value of language skills & communication.
- **Essay:** Enriches content with precise expressions.
- **Interview:** Reflects clarity, confidence & linguistic ability.

Other Useful Idioms

- *Put your feet up* – relax.
- *On your feet* – active; in control.
- *Feet on the ground* – practical; realistic.
- *Cut someone off at the knees* – stop progress.
- *Stand on your own two feet* – be independent.

Synonyms

- *Relax* – Rest, Unwind
- *Confused* – Puzzled, Perplexed
- *Disapproval* – Objection, Dissent
- *Idle* – Inactive, Unproductive

Antonyms

- *Active* × *Idle*
- *Approve* × *Disapprove*
- *Confident* × *Unsure*
- *Join* × *Leave*

What does the India-Russia logistics agreement allow?

What is RELOS, and does it allow India and Russia to station troops on each other's territory?

Dinakar Peri

The story so far:

The India-Russia bilateral Logistics Support Agreement (LSA), termed the Reciprocal Exchange of Logistics Agreement (RELOS), which had been dragging on for several years, was operationalised in January this year. There was a flutter on social media recently with claims that it allows the stationing of 3,000 Russian troops on Indian soil or vice versa, painting it as a military alliance. However, it is like any LSA, the likes of which India has signed with other countries.

What are Logistics Support Agreements?

A logistics agreement is a foundational military cooperation agreement between

countries for administrative purposes that enables the reciprocal use of each other's bases and ports for supplies, repair, and fuel. The agreement also stipulates the occasions on which this can be utilised, generally for exercises, joint training, port calls, and Humanitarian Assistance and Disaster Relief situations. As defence cooperation and military-to-military engagement become vital in international relations, the agreement simplifies essential administrative procedures and reduces bureaucracy.

For instance, the agreement with the U.S., Logistics Exchange Memorandum of Agreement (LEMOA) signed in 2016, the first such, provides a framework for reciprocal provision of logistic support, supplies and services for activities such as joint exercises, training, or humanitarian assistance and disaster relief. "It does not provide for the establishment of any

bases or basing arrangements," Minister of State for Defence Subhash Bhamre said in a written reply in the Parliament in February 2017.

If the hyperbole is to be believed, India and Russia can station troops on each other's territory, then by convention, it also means that India and the U.S. can do the same under the LEMOA. But that is grossly incorrect, as clarified by the Minister, and is so for any LSA.

What are the existing agreements?

India has signed a series of logistics support agreements since the LEMOA in 2016. Currently, India has similar agreements with nine countries - the U.S., the U.K., France, Vietnam, Japan, Australia, Singapore, and Russia - concluded on similar lines, which provide logistics support and technical aid. The basic template and purpose for all these

remain the same. There is also one with Oman covered under the overarching defence cooperation agreement.

What is the agreement with Russia?

Like other agreements, RELOS defines procedures for supporting military formations, port calls of warships, and the use of airspace and airfield facilities by military aircraft of both countries and the organisation of logistics and technical support of military formations of warships, military aircraft, and other equipment.

The agreement was signed in Moscow on February 18, 2025, and Russian President Vladimir Putin signed the federal law ratifying it on December 15, 2025. According to the Kremlin, the purpose of the agreement is to define the procedures for the deployment of military formations, port calls by warships, and the use of airspace and airfield infrastructure by military aircraft of the two countries.

Broadly, RELOS covers joint military exercises, training, HADR missions, port and repair services, medical support, as well as delivery of food and technical resources and reciprocal access to military facilities, including airbases and ports, to support ship and aircraft personnel.

The agreement stipulates a maximum of 3,000 troops, representing a broad upper limit that takes into account the size of contingents and the number of ships or aircraft that may visit during engagements mutually agreed upon by both sides. It is valid for a period of five years, allowing for revisions later to reflect changing circumstances and requirements. The time frame for positioning of assets and personnel would be subject to the visit mutually agreed upon by both parties, one official said.

In fact, the scale of bilateral and multilateral relations between India and other countries is much larger. Indian armed forces exercise with the U.S. now.

Also, the agreement does not confer any provision for permanent basing of assets, and the agreement shall be exercised during joint exercises, port calls, or visits mutually agreed by both nations based on provisions of the agreement, officials clarified. "No permanent or long-term stationing has been agreed upon as part of the Agreement."

One important aspect is that RELOS gives access to Russian military facilities in the Arctic as both countries expand cooperation there, as new navigation routes open up, a fallout of global warming.

Dinakar Peri is Fellow, Security Studies at Carnegie India

- India and Russia signed the Reciprocal Exchange of Logistics Support (RELOS) agreement.
- Operationalised in January 2026; signed on 18 February 2025 in Moscow; ratified by Russia on 15 December 2025.
- RELOS is similar to Logistics Support Agreements (LSAs) India has with other countries.
- Does not allow stationing of 3,000 troops on each other's territory.
- No provision for permanent basing of assets.
- Valid for 5 years; revisions possible based on changing circumstances.

- Enables reciprocal use of bases and ports for supplies, repair, and fuel.
- Used for joint exercises, training, port calls, HADR operations.
- Simplifies administrative procedures and reduces bureaucracy.
- Does not provide for establishment of any bases or basing arrangements.
- Based on mutual consent; access subject to visits agreed by both sides.

- Similar agreements exist with the U.S., U.K., France, Vietnam, Japan, Australia, Singapore, Oman.
- Provide logistics support and technical aid.
- Do not affect sovereignty or territorial integrity.
- RELOS gives access to Russian military facilities in the Arctic; supports new navigation routes and strategic cooperation.

- Covers joint military exercises, training, HADR missions, port and repair services, medical support.
- Includes delivery of food and technical resources.
- Provides reciprocal access to military facilities, including airbases and ports, for ship and aircraft personnel.
- Troop limit of 3,000 is a broad upper limit for contingents and assets during agreed engagements.

- **Importance:** Strengthens defence cooperation and interoperability; supports operational reach; facilitates HADR; opens Arctic cooperation opportunities.
- **UPSC Relevance:** GS Paper 2 – India's foreign relations; defence cooperation. GS Paper 3 – Security challenges, role of external state and non-state actors.
- **Key Terms:** RELOS, LSA, LEMOA, HADR, Logistic Support, Reciprocal Access.

Health data must drive action, not just headlines

There is an unsettling paradox in the release of health survey data in India. Survey findings often end up doing exactly the reverse of what they should. They often highlight what we already know, do not take a sufficiently serious view of what has not improved, and rarely lead to immediate programmatic action. The discussion that follows is often ritualistic: the government highlights achievements, newspapers amplify numbers, academics wait for raw data to analyse, and business and industry identify market opportunities.

This seems to be the case with the three recently released health-linked surveys: the National Family Health Survey (NFHS-6), the National Statistical Office (NSO) 80th Round Household Consumption on Health and the National Health Accounts Estimates for India 2022-23.

All three should have offered a moment of national stocktaking. Instead, the two reports on health expenses barely received any attention, while the third, the NFHS-6, and its use by key stakeholders, tells a familiar story. In government communication, improvements have been selected and celebrated. Achievements must, of course, be acknowledged. However, the real value of such surveys is not in confirming what has worked, but in showing where programmes remain weak and old strategies are no longer sufficient.

The business of disease

Industry and business groups have flagged rising health challenges reported in NFHS-6. Rising obesity becomes an argument for weight-loss products, apps, gyms, diagnostics and drugs. Rising diabetes becomes an opportunity for monitoring devices, test packages and private clinics. Rising non-communicable diseases become the market case for more screening, testing and medicalisation. Where public health messaging is weak and private health markets are aggressive, every survey finding can become a business prospect.

The one positive development so far has been the extensive coverage in the print media, which has flagged what matters to citizens: the rise of obesity, diabetes, hypertension and other non-communicable diseases (NCD). Yet, much of this was already known. Obesity and other NCDs have moved from urban and affluent groups to all social and economic groups. The new data merely put fresh numbers to an old warning.

What is grossly missing is critical reflection and policy dialogue around these findings. This should worry us. A health survey is not meant to be a national reminder of familiar problems but an instrument of course correction. If anaemia



Chandrakant Lahariya

Practising physician in preventive and cardio-metabolic medicine and specialist in health policy. He has worked with the World Health Organization (WHO) and the UN system for nearly 18 years

has not improved, the response cannot be another paragraph in a report. If out-of-pocket expenditure remains high, the answer cannot be only a headline on a declining percentage share. If obesity is rising among children, the response cannot be a few articles followed by silence.

The NFHS-6 also carries a temporal problem. Its data were collected during 2023-24, but the findings entered public debate in mid-2026. In a political system skilled at both claiming credit and avoiding blame, this lag is convenient. A government can celebrate positive indicators as proof of current policy success while dismissing uncomfortable findings as "old data", influenced by the COVID-19 pandemic, past administrative disruptions or conditions that have since improved. The survey then becomes less a compass and more a weapon. This is unfair to the survey and unhelpful to policymaking.

Academicians and public health researchers play a crucial role in interpreting large-scale survey data beyond official reports. In India, however, such analysis is often delayed because raw data are released late. By the time peer-reviewed studies appear, three to five years may have passed since data collection.

Policymakers can then dismiss critical findings as outdated and no longer relevant. As a result, data lose their impact: when reports are released, raw data are unavailable for scrutiny; when analysis finally arrives, the opportunity for policy action has often passed.

From data to action

There is a need to reflect on how India continues to miss these opportunities. Data improve health outcomes only when they are linked to timely and relevant policy decisions. Countries that make effective use of health data do not wait years for perfect academic papers or definitive solutions. Instead, they have robust systems and empowered institutions that generate rapid policy briefs, identify lagging districts and regions, conduct regular reviews, compare performance, allocate resources efficiently and adapt programmes as needed. The translation of data into action is not merely a slogan; it is a discipline. India needs to cultivate that discipline if it is to realise the full value of the vast amounts of health data it collects.

First, every major national health survey should be followed, within 30 to 45 days, by a national and State-level action note jointly prepared by the government and independent academic institutions. The note should candidly identify what has improved, what has remained stagnant and what has deteriorated. Each finding should be linked to a specific programme and a clearly accountable authority. If child nutrition has stagnated, the nutrition programme must

respond. If hypertension detection remains inadequate, the primary health-care system must respond. If out-of-pocket expenditure on medicines remains high, the drug procurement system must respond. Data should not merely describe problems; they should trigger accountability and corrective action.

Second, there should be State-level health data review meetings, not ceremonial events but working sessions. Health Secretaries, Finance Departments, District officials, public health experts, civil society representatives, other key stakeholders and independent subject experts should examine the findings together. The question should not be, "What can we highlight?" It should be, "What must we change?"

Third, India needs systems for the optimal and timely use of survey data. It has started developing the Integrated Health Information Platform (IHIP), but that is primarily for real-time data. Survey data, Health Management Information System (HMIS) data and IHIP data must be combined to generate analytical information. Fragmented data produce fragmented policy.

Fourth, primary data and source files from surveys should be made available early so that independent researchers and public institutions can produce quick analysis. There is no reason to wait years for serious interpretation. Data should not sit like a guarded file. They should be available as a public good.

Fifth, findings should influence budgetary allocation. If a survey shows rising NCDs, primary care budgets must reflect the need for NCD prevention and treatment. If households are spending heavily on medicines, public facilities must strengthen essential drug availability. If obesity is rising in children, school health, food regulation and urban planning must respond. Data without budgetary consequence are merely information.

Looking ahead

Economist Aaron Levenstein said in 1951 that "statistics are like bikinis. What they reveal is suggestive, but what they conceal is vital". Health data should be like an x-ray. They are useful only when interpreted correctly, discussed honestly and followed by policy actions. Data and statistics are only as useful as their interpretation; interpretation is only as useful as the action it produces. The next time survey findings are released, the real question should not be what the numbers show. The real question should be: what will change in programmes in a month's time, in six months and in a year? Alongside this, India definitely needs more and timely health data. However, what we need even more is accountability.

- NFHS-6, NSO 80th Round and National Health Accounts 2022-23 are key health surveys.
- Surveys often highlighted but rarely lead to programmatic action.
- Achievements must be acknowledged, but focus should be on gaps.
- Business interests exploit rising diseases (obesity, diabetes, NCDs) as markets.
- NFHS-6 data collected in 2023-24; findings debated in mid-2026 — delay reduces impact.
- Raw data release is delayed; policy window often missed.

- Health data should be linked to timely and relevant policy decisions.
- 30–45 days action note by Centre & States after each major survey.
- State-level data review meetings with all stakeholders.
- Integrate IHIP + HMIS + survey data for better analysis.
- Open access to primary data and source files early.
- Budget allocation must reflect survey findings (e.g., NCDs, medicines, child nutrition).

- Health data must guide accountability, budgets and programme reform.
- Data without action or budget impact is meaningless.
- Surveys are tools for course correction, not headlines.
- Timely data, honest analysis and strong institutions are key to better health outcomes.

- GS Paper 1 – Society (Health issues, Social development)
- GS Paper 2 – Governance (Accountability, Service Delivery, Centre-State relations)
- GS Paper 3 – Health, NCDs, Human Development, Public Finance, Data governance
- Essay – Role of data in inclusive and effective policymaking

- NFHS (National Family Health Survey): Conducted by MoHFW with IIPS.
- NFHS-6 (2019-21) provides district-level data on health & family welfare.
- Key Indicators: IMR, MMR, anaemia, NCDs, nutrition, sanitation, etc.
- NSO 80th Round (2023): Household consumption on health.
- National Health Accounts (NHA): Tracks total health expenditure.

- **Hydropolitics:** Political dimensions of use and control of transboundary waters.
- **Data Lag:** Time gap between data collection and its use.
- **NCDs:** Non-communicable diseases like diabetes, hypertension, CVD, cancers.
- **IHIP:** Integrated Health Information Platform.

- Health is a State subject; coordination with Centre essential.
- Data transparency and accessibility critical for research.
- People-centric approach > infrastructure-centric solutions.
- Strong health systems + reliable data = better outcomes.
- "What must we change?" > "What can we highlight?"

Health data should guide accountability, budgets and programme reform

Dhaka's new Padma barrage will reshape water power in the region

The new barrage will lie just 180 km downstream of the Farakka barrage in Bengal – which Bangladesh has blamed for its periodic water scarcity; the Farakka, one of India's largest with a feeder canal, was built to divert water from the Ganga to the Bhagirathi-Hoogly, and flush the Kolkata Port

Sonikka Loganathan
CHENNAI

Bangladesh recently signed off on the new Padma barrage to control the Padma river, which is the Ganga in Bangladesh, and abate the country's seasonal water scarcity.

The 2.1-km-long structure will store 2,900 million cu. m of water to serve 6.5 crore people across southwestern and northern Bangladesh. It is estimated to cost Tk 50,443 crore (Rs 39,170 crore) over seven years.

The barrage will lie just 180 km downstream of the Farakka barrage in West Bengal – which Bangladesh has increasingly viewed as an impediment. The Farakka barrage is one of India's largest with a feeder canal and was built to divert water from the Ganga to the Bhagirathi-Hooghly and flush the Kolkata Port.

Under the 1996 Ganges Water Treaty, Bangladesh will receive half the water from the Farakka barrage when the flow is under 70,000 cusecs. But during the dry season between March and May, each country has to receive at least 35,000 cusecs of water in three alternating 10-day periods.

Treaties past and future

A 2019 review by a team of experts in *Water Policy* found that there were "repeated occurrences of low flow at Farakka during the drier years in the post-Treaty period," including in 1997, 2008, 2010 and 2016. They concluded that the 1996 Treaty couldn't account for rising unpredictability in the flows.

The agreement is set to expire in December 2026.

But Dhaka has also said the Farakka barrage is responsible for the country's periodic water scarcity. To add to the anxiety, several river-sharing agreements between India and Bangladesh also remain unsigned, including the Teesta River Treaty.

According to S. Janakarajan, president of the South Asia Consortium for Interdisciplinary Water Resources Studies, "All transboundary water issues centre around the lack of timely flow of water," implying the barrage will be a way for the lower riparian state to exert some control over its water resources.

But this equity will come at a considerable environmental cost.

Effects of Farakka barrage

The Farakka barrage has altered the Ganga river's character and ecology in Bangladesh. About a third of the country's population relies on the Ganga basin, mostly to irrigate crops. But by redirecting the river and reducing flow,



A view of the Padma river from space in 2016. NASA

Bangladesh also drew around 520 litres of groundwater per person per day in 2008 (the latest year for which the UN FAO Aquastat database provides national figures for withdrawals by source). While this is not particularly high, the country's dependence on groundwater is a matter of concern.

Because the Farakka barrage also reduces flow in the Padma, the Padma is less able to transport silt, which sinks to the riverbed and piles up. When the monsoons arrive, the river overflows quickly and floods.

The sediments are also crucial to maintaining ecosystems and the livelihoods that depend on them.

For example, the Sundarbans region hosts the world's largest continuous mangrove forest and depends on water from the Ganga, Brahmaputra, and Meghna rivers. Mr. Janakarajan said less sediment and freshwater flowing from these barrages will cause water in the Sundarbans to become saline whereas the ecosystem requires brackish water, which is less salty.

These changes will also lead to fewer fish, affecting the lives and livelihoods of fisherfolk in the area.

Fondness for concrete

South Asia is currently on a dam-building spree. There are more than 160 hydroelectric power projects underway in the region, per a 2023 review in *Water*. China is also building what will be the world's largest dam over the upper course

initiated a Rs 6.4 lakh crore hydroelectric power project, including building over 200 dams in its Northeast.

Dams – of which barrages are a type – are generally designed to operate for a century. Climate change is breaking this guarantee.

To ensure a barrage doesn't overflow under heavy bursts of rain, for instance, engineers have to drain water from behind it using canals, Omair Ahmad, former South Asia managing editor at *Dialogue Earth*, said. However, this will require building extensive water diversion infrastructure that would likely be made of cement.

"Creating greater pondage here in a cement thing means water is not going into your groundwater. It cannot," Mr. Ahmad said. "It is robbing a much larger area around that barrage of the regular flow of water that would seep in from a river basin."

Given the adverse environmental consequences, experts said building another barrage is not the most rational choice.

"We think big projects will actually manage [water] despite historical evidence that they do not," Mr. Ahmad said. "It is rare for big projects to be able to manage this because ecosystems are a bit too complex."

Mr. Ahmad and Mr. Janakarajan also suggested that instead of one large barrage, Bangladesh should consider building a series of smaller check-dams, which don't dramatically alter a river's

UPSC NOTES

- Padma river = Ganga in Bangladesh.
- New barrage is 180 km downstream of Farakka barrage.
- 2.1 km long; storage capacity 2,900 million cu. m; benefit to 6.5 crore people.
- Farakka barrage diverts Ganga water to Bhagirathi-Hooghly to flush Kolkata Port.
- 1996 Ganges Water Treaty: Bangladesh gets 50% water when flow < 70,000 cusecs; 35,000 cusecs in dry season.
- Treaty expires in Dec 2026; several river-sharing agreements (e.g., Teesta) remain unsigned.
- Impacts on Bangladesh: Reduced flow, groundwater recharge, navigation, increased salinity, erosion.
- Sundarbans ecosystem needs brackish water; less sediment & freshwater = ecological damage.
- Sea level rise threatens 17% of Bangladesh; 20 million climate refugees possible.
- Bangladesh: 520 litres groundwater per person per day (2008).
- South Asia dam building spree: 160+ hydro projects underway; China dam on Brahmaputra; India plans 200+ dams in Northeast (₹6.4 lakh crore).
- Barrage design lasts ~100 years, but climate change breaks guarantee.
- Expert suggestion: Multiple small check-dams better than one big barrage.

VALUE ADDITION POINTS

- River water-sharing = not just water, but food, ecology, livelihoods & regional stability.
- Upstream interventions affect downstream countries (quantity + quality + timing).
- Integrated River Basin Management (IRBM) is the way forward.
- Need for sediment management, environmental flows and data sharing.
- Climate change increases variability → treaties must be adaptive and dynamic.
- People-centric, ecosystem-based approach more sustainable than infrastructure-driven solutions.

UPSC RELEVANCE (GS PAPER LINKAGES)

- **GS Paper 1 – Geography:** Rivers, Dams, Water resources, Environment.
- **GS Paper 2 – International Relations:** India-Bangladesh relations, Transboundary water issues.
- **GS Paper 3 – Environment:** Climate change, Disaster management, IRBM.
- **Essay:** Water conflicts, Sustainable development, Regional cooperation.

KEY TERMS

- | | |
|------------------------------|------------------|
| • Farakka Barrage | • Sundarbans |
| • Padma Barrage | • Sediment Flow |
| • Ganges Water Treaty (1996) | • Hydropolitics |
| • Cusecs (Unit of discharge) | • Sea Level Rise |
| • Groundwater Recharge | • Check-Dams |

9 महत्वपूर्ण विषय



1 भारत-अमेरिका संबंध और भारतीय नाविकों की सुरक्षा

- पीएम मोदी ने राष्ट्रपति ट्रंप से भारतीय नाविकों की सुरक्षा का मुद्दा उठाया।
- ओमन तट के पास हमले में 3 भारतीय नाविकों की मृत्यु का जिक्र।
- होर्मुज जलडमरूमध्य का खुला रहना विश्व अर्थव्यवस्था के लिए जरूरी।
- वैश्विक समुद्री मार्गों और ऊर्जा आपूर्ति शृंखला की सुरक्षा पर जोर।



2 अमेरिका-ईरान ढांचा समझौता

- ईरान परमाणु हथियार नहीं बनाने का आश्वासन देता है।
- प्रतिबंधों में चरणबद्ध राहत और जमी पूंजी/संपत्तियों की रिहाई का प्रस्ताव।
- \$300 अरब के आर्थिक विकास योजना का खाका।
- पश्चिम एशिया स्थिरता और वैश्विक तेल बाजार पर प्रभाव।



3 ढाका का नया पद्मा बैराज क्षेत्र की जल शक्ति बदलेगा

- बांग्लादेश का नया बैराज पद्मा नदी के प्रवाह को नियंत्रित करेगा।
- जल साझेदारी, तलछट प्रवाह और पारिस्थितिकी पर प्रभाव।
- भारत-बांग्लादेश जल संबंधों और हाइड्रो-राजनीति के लिए महत्वपूर्ण।
- कृषि, नौवहन और बाढ़ प्रबंधन पर दूरगामी असर।



4 Innovate or Be Eaten (नवाचार करें या पिछड़ जाएँ)

- वैश्विक प्रतिस्पर्धा में बने रहने के लिए नवाचार अनिवार्य।
- भारत में R&D व्यय GDP का केवल ~0.65% (विकसित देशों से बहुत कम)।
- AI, डीप-टेक, सेमीकंडक्टर, बायोटेक में आत्मनिर्भरता जरूरी।
- नवाचार पारिस्थितिकी तंत्र विकसित भारत और आत्मनिर्भर भारत की कुंजी।



5 Step Forward (एक कदम आगे)

- सुशासन, प्रशासनिक सुधार और संस्थागत जवाबदेही की आवश्यकता।
- नीतियों के प्रभावी क्रियान्वयन से विकास की गति तेज होगी।
- साक्ष्य-आधारित निर्णय और पारदर्शिता पर जोर।
- छोटे प्रशासनिक कदम, बड़े परिवर्तन का आधार बन सकते हैं।



6 स्वास्थ्य डेटा को बनाएं कार्रवाई का आधार, सिर्फ सुखियाँ नहीं

- NFHS-6 में पोषण, मातृ स्वास्थ्य, एनीमिया, NCDs के मिले महत्वपूर्ण संकेत।
- डेटा-आधारित नीति और लक्षित हस्तक्षेप आवश्यक।
- प्राथमिक स्वास्थ्य देखभाल और वास्तविक समय निगरानी पर बल।
- बेहतर डेटा = बेहतर नीति = बेहतर स्वास्थ्य परिणाम।



7 ब्रह्मपुत्र की बाढ़ और माजुली की संवेदनशीलता

- भारी वर्षा से जलस्तर बढ़ा, माजुली में लोगों का विस्थापन।
- माजुली विश्व का सबसे बड़ा नदी द्वीप है।
- जैव विविधता, आजीविका और संस्कृति के लिए बाढ़ बड़ा खतरा।
- जलवायु अनुकूलन, दीर्घकालिक बाढ़ प्रबंधन की आवश्यकता।



8 RBI और उसकी बढ़ती राजकोषीय भूमिका

- RBI का लाभांश और अधिशेष हस्तांतरण सरकार की वित्तीय स्थिति में सहायक।
- मौद्रिक स्वतंत्रता और राजकोषीय जिम्मेदारी के बीच संतुलन जरूरी।
- 'केंद्रीय बैंक स्वायत्तता' और 'राजकोषीय प्रभुत्व' पर बहस।
- दीर्घकालिक स्थिरता के लिए स्पष्ट ढांचा आवश्यक।



9 भारत-रूस लाँजिस्टिक्स समझौता क्या अनुमति देता है?

- दोनों देशों की सेनाओं को एक-दूसरे के ठिकानों/सुविधाओं का उपयोग।
- ईंधन, मरम्मत, रखरखाव और रसद सहायता की अनुमति।
- रक्षा सहयोग, परिचालन क्षमता और रणनीतिक पहुंच में वृद्धि।
- बहुध्रुवीय कूटनीति और यूरोशियन क्षेत्र में भारत की उपस्थिति मजबूत।

त्वरित समाचार (10)

- 1 Grok AI का उपयोग ईरान संघर्ष के दौरान सैन्य अभियानों में किया गया।
- 2 प्रमुख भारतीय हवाई अड्डों पर फुल-बॉडी स्कैनर का परीक्षण शुरू।
- 3 RBI ने NRIs के लिए जमा ब्याज दर प्रतिबंधों में ढील दी।
- 4 पश्चिम एशिया तनाव के बीच भारत का कच्चे तेल और LNG आयात बिल बढ़ा।
- 5 राज्यपाल अजय कुमार भल्ला ने मणिपुर की सुरक्षा स्थिति की समीक्षा की।
- 6 NEET पेपर लीक से जुड़े नेटवर्क पर रोक के लिए टेलीग्राम पर अस्थायी प्रतिबंध।
- 7 मणिपुर में जातीय तनाव जारी, स्थिति चुनौतीपूर्ण बनी हुई है।
- 8 AI-संचालित युद्ध भविष्य की सुरक्षा के लिए उभरती बड़ी चुनौती।
- 9 हवाई अड्डों की उन्नत सुरक्षा प्रौद्योगिकियों का विस्तार किया जा रहा है।
- 10 बढ़ता ऊर्जा आयात भारत के बाह्य क्षेत्र पर दबाव डाल रहा है।

अन्य महत्वपूर्ण समाचार (10)

- 1 फीफा विश्व कप 2026 को लेकर भारत में फैन एंगेजमेंट कार्यक्रम तेज।
- 2 कोल एक्सचेंज नियम, 2026 अधिसूचित।
- 3 डार्क पैटर्न से ऑनलाइन उपभोक्ताओं को भारी नुकसान।
- 4 भारत में स्मार्ट मीटरिंग के विस्तार को गति।
- 5 विदेशी विश्वविद्यालयों को भारत में परिसर स्थापित करने की अनुमति।
- 6 सोलर निर्माताओं ने घरेलू सेल सोर्सिंग अनिवार्यता को चुनौती दी।
- 7 बायोटेक्नोलॉजी में 'वन हेल्थ' दृष्टिकोण का बढ़ता महत्व।
- 8 दक्षिण भारत में मोर (पीकॉफ) की आबादी में वृद्धि।
- 9 क्यूबा के बायोटेक्नोलॉजी सहयोग मॉडल पर वैश्विक चर्चा।
- 10 खाड़ी संकट के बाद समुद्री बीमा को लेकर चिंताएँ बढ़ीं।

शब्दावली (Vocabulary) (6)

1 प्रतिबंध (Sanctions)	किसी देश पर लगाए गए आर्थिक/राजनीतिक दंड।
2 हाइड्रो-राजनीति	जल संसाधनों से जुड़े राजनीतिक मुद्दे।
3 राजकोषीय (Fiscal)	सरकार की आय-व्यय और वित्त से संबंधित।
4 पारिस्थितिकी तंत्र (Ecosystem)	परस्पर जुड़े जीवों और पर्यावरण की प्रणाली।
5 स्वायत्तता (Autonomy)	स्वतंत्र निर्णय लेने की क्षमता।
6 अस्थिरता (Volatility)	तेजी से और अप्रत्याशित परिवर्तनशीलता।

9 IMPORTANT TOPICS



1 India–U.S. Relations and Safety of Indian Seafarers

- PM Modi raised the safety of Indian sailors with President Trump.
- Three Indian sailors killed in a strike near Oman coast.
- Keeping Strait of Hormuz open is vital for global trade and energy.
- Protecting 1.5 lakh+ Indian seafarers working worldwide.



2 U.S. –Iran Framework Agreement

- Iran agrees not to develop nuclear weapons.
- U.S. proposes phased sanctions relief; release of frozen assets.
- Framework includes economic plan worth \$300 billion.
- Impact on West Asia stability and global energy prices.



3 Dhaka’s New Padma Barrage Will Reshape Water Power

- Bangladesh’s new barrage to regulate Padma river flow.
- Impacts water sharing, sediment flow and ecology.
- Hydro-politics: Implications for India-Bangladesh relations.
- Affects agriculture, navigation and flood management.



4 Innovate or Be Eaten

- India needs innovation-led growth to stay globally competitive.
- Low R&D expenditure (0.65% of GDP) – far below global leaders.
- Focus on deep-tech, AI, semiconductors, biotech and startups.
- Innovation ecosystem key for Atmanirbhar Bharat and Viksit Bharat.



5 Step Forward

- Focus on governance reforms for efficient service delivery.
- Strengthening institutions, accountability and transparency.
- Importance of evidence-based policymaking.
- Small administrative steps can lead to big governance gains.



6 Health Data Must Drive Action, Not Just Headlines

- NFHS-6 reveals improvement in some indicators, gaps persist.
- Need for data-driven health policy and targeted interventions.
- Focus areas: Nutrition, maternal health, anaemia, NCDs.
- Strengthen primary healthcare and real-time health surveillance.



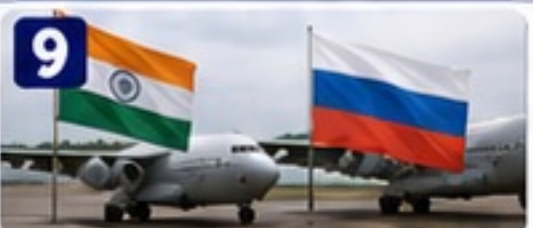
7 Brahmaputra Floods and Majuli Vulnerability

- Heavy rains and rising water levels displace people in Majuli.
- Majuli – one of the world’s largest river islands.
- Recurring floods threaten biodiversity, livelihoods and culture.
- Need for long-term flood management and climate resilience.



8 The RBI and Its Growing Fiscal Role

- RBI dividend and surplus transfers support government finances.
- Balancing monetary independence with fiscal expectations.
- RBI’s role in financial stability and growth crucial.
- Need clear framework to preserve central bank autonomy.



9 What Does the India–Russia Logistics Agreement Allow?

- Reciprocal logistics support for military operations and exercises.
- Improves interoperability and operational reach.
- Strengthens defence ties and Eurasian strategic connectivity.
- Supports India’s multi-alignment and strategic autonomy.

QUICK NEWS (10)

- 1 Grok AI reportedly used in military operations during Iran conflict.
- 2 Full-body scanners under trial at major Indian airports.
- 3 RBI relaxes deposit rate restrictions for NRIs to boost forex inflows.
- 4 India’s crude oil and LNG import bill rises amid West Asia tensions.
- 5 Governor Ajay Kumar Bhalla reviewed security situation in Manipur.
- 6 Temporary Telegram block imposed to curb NEET-related fraud networks.
- 7 Continuing ethnic tensions remain a challenge in Manipur.
- 8 AI-enabled warfare emerging as a major security concern globally.
- 9 Advanced airport security technologies being expanded in India.
- 10 Rising energy imports continue to affect India’s external sector dynamics.

OTHER IMPORTANT NEWS (10)

- 1 FIFA World Cup 2026 fan engagement across India.
- 2 Coal Exchange Rules, 2026 notified.
- 3 Dark patterns causing major losses to online consumers.
- 4 Smart metering expansion in India.
- 5 Foreign universities get approval to set up campuses in India.
- 6 Solar manufacturers challenge domestic cell sourcing mandate.
- 7 Growing importance of One Health approach in biotechnology.
- 8 Expansion of peafowl populations in southern India.
- 9 Cuba’s biotechnology collaboration model.
- 10 Maritime insurance concerns after Gulf crisis.

VOCABULARY (6)

1 Framework	A basic structure underlying a system or agreement.
2 Sanctions	Penalties imposed by one country on another for specific actions.
3 Hydropolitics	Political issues surrounding water resources.
4 Interoperability	The ability of systems to work together effectively.
5 Autonomy	Independence in decision-making.
6 Volatility	Liability to change rapidly and unpredictably.