

A rare, well preserved ancient human skull found in central China could be a million year old Homo erectus. As excavation of the fossil continues, archaeologists and palaeoanthropologists anticipate that the skull could give a fuller and a detailed picture of the diverse family tree of archaic humans living throughout Eurasia in prehistoric times. It lies 35 metres from where two significant finds — dubbed the Yunxian Man skulls — were unearthed in 1989 and 1990.

Researchers have identified two, possibly even three, new minerals in a huge iron-based meteorite that landed in Somalia. The minerals have been named elaliite, after the meteorite's location near the town of El Ali, and elkinstantonite after Lindy Elkins-Tanton, lead investigator of a NASA mission to a metal-rich asteroid. The 2-metre-wide meteorite has been well known to generations of people who live in the area, where it was named Nightfall.

Satellite 'mega constellations' — such as SpaceX's Starlink Internet network, which already consists of thousands of satellites — might soon face some regulation in the United States. A U.S. government report suggests that regulators should revisit a 1986 decision that effectively exempts communications satellites from the U.S. National Environmental Policy Act. Mega constellations can disrupt the radio frequencies used for astronomical observation and intensify congestion in orbit.

Team at the Institute for Stem Cell Science and Regenerative Medicine (DBT-inStem), an autonomous institute of the Department of Biotechnology, has developed a novel blood bag technology to enhance the quality and shelf life of stored blood. Despite inadequate blood donation, millions of blood units are discarded due to decline in quality during storage. Stored blood has a finite shelf life. Typically, stored cells produce various extracellular components known as damage associated molecular patterns (DAMPs), which damage the blood cells during storage.

A recent study published in the Journal of American College of Cardiology showed a higher incidence of heart attacks, heart failure and strokes with higher frequency of adding salt to one's food. This did not include the salt used for cooking. Over 1.76 lakh participants from the U.K. Biobank were followed up for an average of 11.8 years. Nearly 7,000 heart attacks and over 2,000 strokes were documented during this period. After adjusting for all other risk factors, it was found that adding less salt with food was associated with fewer heart attacks and strokes. This was found to be true even in participants

### NPCI EXTENDS UNIFIED PAYMENTS INTERFACE (UPI) MARKET CAP DEADLINE BY 2 YEARS, I.E. TILL DECEMBER 31, 2024

1. Earlier, in 2020, National Payments Corporation of India (NPCI) came up with a directive to put a volume cap of 30% of the overall volume of transactions processed in UPI for Third Party App Providers (TPAPs).
2. Applicable with effect from 01 January 2021, the TPAPs exceeding the cap were given two years' time to comply. Currently, there's no cap on volume with PhonePe (47%) and Google Pay (34%) as two biggest TPAPs.
3. **About UPI (its advantages) and NPCI**-It is a real-time payment system, launched in 2016 by NPCI, which allows users to: Link multiple bank accounts into a single mobile application, and make seamless fund transfers or merchant payments without having to provide Indian Financial System Code or account number (refer image for more details).
4. UPI supports Pay Request (pushing funds to the intended beneficiary) and Collect Request (pulling funds from the intended remitter). NPCI, an initiative of RBI and Indian Banks Association under the Payment and Settlement Systems Act (2007), is an umbrella organization for operating retail payments and settlements in India.

### CENTRE PLANNING TO EXPAND SCOPE OF GATI SHAKTI TO SOCIAL SECTOR

1. In this regard, Department for Promotion of Industry and Internal Trade has begun working with five social sector departments: Health Education Rural development & Panchayati Raj Urban development Women & child development.
2. **How Gati Shakti will improve functioning of these departments:** Improved Planning and monitoring of projects. Expenditure of approximately USD 28 bn and USD 20 bn for education and healthcare is planned respectively over 2020-25. Concerned departments can upload their Geographic Information System (GIS) data of new infrastructure projects. Will help better assess relevance and network impact of a project.
3. **About PM Gati Shakti**- National Master Plan-PM Gati Shakti-National Master Plan aimed at developing integrated infrastructure to reduce logistic costs. To lend more speed (Gati) and power (Shakti) to projects by connecting all concerned departments on one platform. Aims to break departmental silos and institutionalise holistic planning for stakeholders across major infrastructure projects.
4. All logistics and connectivity infrastructure projects, entailing investment of over Rs 500 crore, are routed through the Network Planning Group (NPG), constituted under the PM Gati Shakti (PMGS-NMP) initiative. Six pillars: Comprehensiveness, Prioritization, Optimization, Synchronization, Analytical and Dynamic.

### SCIENTISTS URGE ANDHRA PRADESH GOVT TO PROTECT COASTAL RED SAND DUNES, POPULARLY KNOWN AS 'ERRA MATTI DIBBALU'

1. Erra Matti Dibbalu also called as Red Sand Hills is situated at the outskirts of Visakhapatnam City. It has light yellow sand dunes at the top followed by a brick red sand unit, a reddish-brown concretion bearing sand unit with yellow sand at the bottom.
2. They are fragile and vulnerable to natural degradation. It was declared a geo-heritage site by the Geological Survey of India (GSI) in 2014. Geo-heritage sites, also referred to as National Geological Monuments, are geological areas of scientific, cultural and educational value.
3. **Significance of Erra Matti Dibbalu**-Help in studying climate change impact as it has seen both the glacial and warm periods. Site is about 18,500 to 20,000 years old and can be related to last glacial period. Rare occurrence, as such sand deposits do not occur in equatorial regions or temperate regions. Only three places in the tropical regions in South Asia have such deposits with Teri Sands of Tamil Nadu and a site in Sri Lanka. Home to prehistoric man with three distinctive periods of stone implements and pottery of the Neolithic man.
4. **Other Geological Heritage Site / National Geological Monument Of Andhra Pradesh**-Volcanogenic bedded Barytes, Mangampeta, Cuddapah Eparchaeon Unconformity, Chittoor and Natural Geological Arch, Tirumala Hills, Chittoor.

who were following the DASH diet (Dietary Approaches to Stop Hypertension).

The government has opened yet another weeklong window for electoral bond sales, starting December 5, less than a month after it amended the Electoral Bond Scheme to enable an additional fortnight of sales in years when States and Union Territories have polls. The Finance Ministry on Saturday announced the 24th tranche of electoral bond sales through 29 branches of the State Bank of India (SBI) across the country which are authorised to issue and encash the bonds from December 5 to December 12.

Russian oil output could fall by 5,00,000 to 1 million barrels per day (bpd) early in 2023 after the EU imposes a ban on seaborne imports from Monday, two sources at major Russian producers said. The estimate is at the lower end of market analysts' forecasts of the combined impact of the ban and a proposed price cap on Russian oil, although the sources said the true level would depend on several factors. They requested anonymity to discuss sensitive market dynamics linked to the conflict in Ukraine.

With the Kashmir Tourism Department on Saturday organising a houseboat festival in Srinagar, the much famed and intricately carved houseboats will be this winter season's main tourist attraction in the Valley. The houseboat festival, a tourism official said, is a celebration of the unique role played by houseboats in attracting tourists from across the globe. Shikaras, which are small wooden boats, were decked up on the Dal Lake for the occasion.

Security agencies have approached the consultancy firm Ernst & Young (E&Y) regarding the November 23 cyberattack at the All-India Institute of Medical Sciences (AIIMS) in Delhi. The attack has crippled the servers and e-hospital services at the country's premier public healthcare facility, causing major inconvenience to its patients.

### CIVIL AVIATION MINISTRY NOTIFIES OPERATIONAL GUIDELINES FOR PRODUCTION LINKED INCENTIVE (PLI) SCHEME FOR DRONES AND DRONE COMPONENTS

1. Civil Aviation, the scheme was approved for implementation during 2022-23 to 2024-25 with an outlay of ₹120 crores. It provides an incentive of 20% of the value addition to drones and drone components manufacturers. It covers a wide variety of drone components like Airframe, Propulsion systems etc. The total PLI per manufacturer is capped at ₹30 crore which is 25% of the total financial outlay.
2. **Eligibility:** Extended only to companies engaged in the manufacturing of drones and drone components in India. For MSME and start-ups in terms of annual sales turnover at a nominal level - INR 2 cr (for drones) and INR 50 lakhs (for drone components). For non-MSME companies, annual sales turnover has been kept at INR 4 crore (for drones) and INR 1 crore (for drone components).
3. **Benefits:** Drones offers a positive impact on multiple other sectors such as agriculture, mining, surveillance, emergency response, defence, geo-spatial mapping etc. Help India to emerge as a Global Drone Hub by 2030.
4. Generate over 10,000 direct jobs while attracting investments worth ₹5,000 crore and an incremental production of ₹1,500 crore.

### UNDP RELEASED REPORT," TURNING THE TIDE ON INTERNAL DISPLACEMENT: A DEVELOPMENT APPROACH TO SOLUTIONS"

1. **Highlights of report-** By the end of the 2021, more than 59 million people remained displaced in their own countries. This is highest ever global figure and more than double the number recorded 10 years ago. Reasons for internal displacement: conflict, violence, disasters and climate change.
2. **According to World Bank,** without concrete action, by 2050, climate change could force more than 216 million people to move within their own countries. Internal displacement can result in immediate global costs and losses estimated to be over US\$21 billion per year. Displaced women are much less likely to find work and stay healthy than those from similar backgrounds in host communities.
3. There is an interdependence between solutions to internal displacement and sustainable development progress.
4. **Key recommendations:** Promote nationally owned and locally led solutions to internal displacement and prioritize investments in development solutions. Five key pathways to development solutions: Strengthening governance institutions; Gender-responsive measures to foster socio-economic integration through access to jobs and services; Restoring security; Enhancing civil and political participation; Building social cohesion by ensuring non-discriminatory access to services.

### STATES TO SET UP DISTRICT-WISE PRICE MONITORING CENTRE FOR ESSENTIAL COMMODITIES

1. Centre intends to achieve target of having 750 price monitoring centres by March, 2023 for which financial support will be provided.
2. **Mechanism to monitor price:** Price Monitoring Cell of Department of Consumer Affairs regularly generates data about price. It collects and disseminates wholesale and retail prices of 22 essential food commodities in the country. Retail and wholesale prices from 340 centers are received daily from the State Civil Supplies Departments of respective State Governments. To improve quality of price data, department launched PMS App for reporting of daily prices by price reporting centres.
3. Geo-tagged, time-stamped data through app rules out possibility of reporting of static information. To cross-check accuracy of prices reported by centres from States/UTs, services of FCI and NAFED are utilised.
4. **Need of price monitoring:** To deal with shortage of any specific essential commodity and to check inflation. Ensure that shortages do not adversely affect consumers, particularly vulnerable sections. Prevailing price situation and factors which impacts prices enables policy interventions at appropriate time.



*"We often forget the years and months, not the moments. Respect each moment"*

**DR. KHAN**  
(KSG)