

Two-million-year-old DNA sequences — the oldest ever obtained — recovered from a 100-metre-thick deposit of frozen mud and sand in the North-eastern tip of Greenland, shattering the record for ancient DNA preservation, suggest that the region was once home to mastodons and reindeer that roamed a forested ecosystem unlike any now found on Earth. Reindeers were also unheard of in Greenland, suggesting that the DNA could reveal much about ecosystems that were not recorded in the fossil record.

Nuclear waste could power space missions to the far reaches of the Solar System — places that are too dark for solar panels. Scientists are developing batteries containing americium-241, a radioactive isotope that can be extracted from power plants' spent fuel. Americium-241, a by-product of plutonium decay, has never been used as a fuel. The project is funded by the European Space Agency (ESA), which hopes to wean itself off plutonium - powered equipment sourced from international partners.

Short, vigorous bursts of physical activity one or two minutes in length, occurring as part of daily life — such as very fast walking — are associated with a substantially decreased risk of dying (Nature Medicine). This decreased risk was quantitatively like the effects of vigorous physical activity in leisure time exercise. The growing availability of physical activity data from wearable devices has made it possible to assess health consequences of short bursts of activity.

Scientists have measured the highest toughness ever recorded of any material while investigating a metallic alloy made of chromium, cobalt, and nickel. Not only is the metal exceptionally strong and ductile — which, in materials science, means highly malleable and impressively strong — its strength and ductility improves as it gets colder. This runs counter to most other materials in existence.

CrCoNi is a subset of a class of metals called high entropy alloys (HEAs). All the alloys in use today contain a high proportion of one element with lower amounts of additional elements added, but HEAs are made of an equal mix of each constituent element. These balanced atomic recipes bestow some of these materials with an extraordinarily high combination of strength and ductility when stressed, which together make up what is termed "toughness." The toughness of this material near liquid helium temperatures (20 kelvin, -424 Fahrenheit) is as high as 500 megapascals square root metres.

The logo for India's upcoming G20 presidency was officially unveiled

17TH ASIA AND PACIFIC REGIONAL MEETING (APRM) OF INTERNATIONAL LABOUR ORGANISATION (ILO) CONCLUDES

1. 17th APRM was held in Singapore to discuss national action to deal with issue of dwindling wages of workers, inflation and unemployment in Asia, Pacific and Arab State. It focuses on actions to enhance job-rich growth that is inclusive and transformative. Meeting concludes with adoption of Singapore Declaration.
2. **Key highlights of Singapore Declaration**-Strengthen social dialogue and labour market institutions to sustained inclusive growth. Ensure labour protection for all through effective recognition of right to collective bargaining. Strengthen governance frameworks to protect rights of migrant workers.
3. Strengthen foundation for social and employment protection and resilience. Revitalizing productivity growth and skills development with focus on digital transformation, digital divides and lifelong learning.
4. **Issues faced by Labour sector:** Lack of job security, low wages, extended work hours and exploitation, inhumane work conditions, lack of occupational safety, unskilled labourers etc.
5. Initiatives taken for labour security-e-Shram portal for unorganised workers. Central government replaced 29 existing labour laws with four labour codes namely Industrial relation code, Code on social security, Code on occupational safety, and code on wages.

WORLD BANK'S FLAGSHIP GENDER TOOLKIT BASED ON ENABLING GENDER RESPONSIVE URBAN MOBILITY AND PUBLIC SPACES LAUNCHED

1. This toolkit will bridge knowledge gaps between policy making and program implementation for gender-responsive urban mobility and public space in India. It details four-pillar implementation framework for urban bodies.
2. **Need for gender**-responsive urban mobility-Women are amongst the biggest users of public transport across Indian cities. On average, 45.4% women walked to work compared to 27.4% men. Lower income groups have higher usage of public transport. Urban mobility systems are often not designed to account for gender-based differences in mobility patterns. Lack of safe public transport deters women from accessing promising opportunities. It also deters women from stepping out, creating a vicious cycle that lowers their presence in public spaces.
3. **Initiatives taken to gender-responsive urban mobility**-Integrated Sustainable Urban Transport Systems for Smart Cities (SMART-SUT) focus on improving transportation systems and integrating social and gender equity solutions. Delhi Government has made public transport free for women in national capital. Kerala's all women cab service 'She taxi.'
4. **Recommendations**-Introduce digital ticketing systems and common mobility cards. Introduce a text-based SOS system to indicate distress and awareness campaign for popularising helpline numbers.

PRIVATE MEMBER'S BILL ON UNIFORM CIVIL CODE (UCC) INTRODUCED IN RAJYA SABHA

1. Bill seeks to provide for consultation of National Inspection and investigation Committee for preparation of UCC and its implementation throughout territory of India. It aims to do away with religion-based personal laws. UCC refers to a single law, applicable to all citizens of India in their personal matters such as marriage, divorce, custody, adoption, and inheritance. It is intended to replace the system of fragmented personal laws, which currently govern interpersonal relationships and related matters within different religious communities.
2. **Arguments in favour of UCC**-Promote national integration. Simply present laws that are segregated at present based on religious beliefs. To make judicial pronouncements enforceable (Mohd. Ahmed Khan v. Shah Bano Begum, 1985 etc.). Strengthen gender justice as the religious or customary personal laws are 'mostly' biased in favour of men.
3. **Arguments against UCC**-Parliament does not have exclusive jurisdiction over 'Personal laws' as it is mentioned in Concurrent List. In contradiction to Article 25 (individual's fundamental right to religion), Article 29 (right to conserve distinctive culture) Against diversity of country.

recently at the Hornbill festival in Nagaland. This popular festival showcases the art, culture and cuisine of Nagaland. It also brings attention to a family of some of the largest, most magnificent birds in our country. The Great Hornbill is found in the Himalayan foothills, the Northeast and the Western Ghats. It is the state bird of Arunachal Pradesh and Kerala. With a wingspan of five feet, it presents an awesome (and noisy) spectacle while landing on a perch.

The wreathed hornbill, the brown hornbill and the rufous necked hornbill are slightly smaller, and only found in Northeast India. A great place to spot the oriental pied hornbill is the Rajaji National Park, Uttarakhand. The Malabar grey hornbill's loud 'laugh' echoes in the Western Ghats. The smallest of the group, the Indian grey hornbill is found all over (except the Thar Desert), and is often spotted in urban settings such as Theosophical Society gardens in Chennai.

Public health experience has shown that undernutrition and TB form a vicious cycle. Poor nutritional status predisposes an individual to get infected by the disease, or have a dormant disease manifest clinically. TB leads to depletion of nutrient reserves and aggravation of undernutrition. Optimum nutritional support to TB patients improves weight gain, adherence to therapy, muscle strength, quality of life, robust recovery, and reduced mortality. Good nutrition also prevents relapse of the disease.

Leading experts from Canada and the United States have called upon countries around the world, including India, to join hands across borders and replicate Canada's upcoming news media bargaining code. During the virtual second Digital News Publishers Association (DNPA) Dialogue on Friday, the experts exchanged ideas on how to restore fairness to the relationship between news publishers and Big Tech platforms.

UNICEF AND WHO JOINT PROGRAMME ON MENTAL HEALTH AND PSYCHOSOCIAL WELL-BEING AND DEVELOPMENT OF CHILDREN AND ADOLESCENTS

1. Joint Programme aims to promote optimal development and mental health, reduce suffering, and enhance psychosocial well-being and quality of life in children and adolescents by 2030. As per WHO, Mental health (MH) is a state of mental well-being that enables people to cope with stresses of life, realize their abilities, learn well and work well, and contribute to their community. As per UNICEF, nearly 50 million Indian children suffer from mental disorders. Around 1 in 10 of world's children and adolescents experiences a mental disorder.
2. **Reasons for mental stress:** Child marriage and early and unintended childbearing, separation from parents, poverty, living with chronic health condition, witnessing domestic violence etc.
3. **Challenges associated with mental health-**Limited leadership, investment, and coordination on MH. Globally, median government expenditure on MH is just 2.1%. In 2022, India's 0.8% of total health budget went towards MH. Lack of capacity of frontline health-care providers. Insufficient focus on promoting mental well-being and addressing stigma.
4. **Recommendations-**Strengthen effective leadership, governance and advocacy for children and adolescents' MH. Strengthening service delivery and care. Strengthening information systems, evidence, and research.

PRIVATE MEMBER INTRODUCED NATIONAL JUDICIAL COMMISSION (NJC) BILL, 2022 IN RAJYA SABHA

1. Bill proposes to set up NJC for recommending persons for appointment as Chief Justice of India (CJI) and other Judges of Supreme Court and Chief Justices and other Judges of High Courts.
2. **Key highlights of bill-**Aims to lay down judicial standards and provide for accountability of Judges. Establish credible and expedient mechanisms for investigating individual complaints for misbehaviour or incapacity of a Judge of SC or HC and regulate procedure for such investigation. In 2015, top court struck down National Judicial Appointments Commission (NJAC) and 99th Amendment that provided for an independent commission (NJAC) for appointment of judges.
3. It stated that NJAC damaged basic structure of Constitution by taking away primacy of judiciary in appointing judges. NJAC intended to replace collegium system, whereby, a group of senior-most judges makes appointments to higher judiciary.
4. Issues with collegium system-non-transparent system, since it does not involve any official mechanism or secretariat. No prescribed norms regarding eligibility criteria, or even selection procedure. No official minutes of collegium proceedings. Blamed for tussles between judiciary and executive, and slow pace of judicial appointments.
5. Bills introduced by private members are referred to as Private Member's Bills-Its drafting is responsibility of concerned member. Its introduction requires one month's notice. It is only introduced and discussed on Fridays. So far, Parliament has passed 14 such bills.



“Do more than you are capable of and expect less than you deserve – You are never disappointed.”

DR. KHAN
(KSG)