

DAILY CURRENT AFFAIRS (DCA)

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INDIA-KUWAIT ELEVATE TIES TO STRATEGIC PARTNERSHIP

Context

- Prime Minister Modi paid an official visit to Kuwait marking a historic moment in India-Kuwait relations.
 - ♦ The last Indian prime minister to visit Kuwait was Indira Gandhi in 1981.

Key Highlights

- **Strategic Partnership:** India and Kuwait agreed to elevate their relationship to a Strategic Partnership, enhancing cooperation across multiple sectors.
- **A Memorandum of Understanding (MoU) in the field of defense** was signed, aiming to strengthen ties through joint military exercises, training, coastal defense, and maritime safety.
- Both the nations signed the **Executive Program on Cooperation** in the Field of **Sports for 2025-2028**.
 - ♦ It will strengthen cooperation in the area of sports.
- Both the nations signed the **Cultural Exchange Programme (CEP)** for the years **2025-29**.
- PM Modi was conferred with the the highest award of the State of Kuwait '**The Order of Mubarak Al Kabeer**'.

India-Kuwait Relations in Brief

- **Political Relations:** India was one of the first countries to establish diplomatic relations with Kuwait following its independence from the British Protectorate in **1961**.
 - ♦ Recently a **Joint Commission on Cooperation (JCC)** was established between India and Kuwait, to review and monitor the entire spectrum of the bilateral relations between the two countries.
- **Energy Partnership:** Kuwait is a significant energy partner, serving as India's sixth-largest crude oil supplier and fourth-largest LPG supplier.
 - ♦ It holds approximately 6.5% of global oil reserves, underlining its strategic role in India's energy security.
- **Indian Community:** Indians constitute **21 per cent (1 million)** of the total population of Kuwait and **30 per cent** of its workforce (approximately 9 lakh).

- ♦ Indian workers top the private sector as well as the domestic sector workforce list.
- **Trade relations:** Kuwait remains one of India's top trading partners, with bilateral trade valued at **\$10.47 billion** in the financial year **2023-24**.
- **Medical Cooperation:** An MoU on Medical Cooperation was signed in **2012**, with a Joint Working Group set up to review progress.
 - ♦ During the COVID-19 pandemic, Kuwait supplied over **425 metric tons** of liquid medical oxygen, oxygen concentrators, ventilators etc.

Way Ahead

- The India-Kuwait trade partnership can be further bolstered by the early conclusion of the **India-GCC Free Trade Agreement**, expanding trade in technology, agriculture, and manufacturing, while improving trade facilitation.
- Both countries should work together on **UN reforms**, including expanding the **Security Council's membership** to make it more representative and effective.
- Building on Kuwait's role in India's energy security, both nations should explore renewable energy partnerships, particularly in solar energy, leveraging Kuwait's membership in the **International Solar Alliance (ISA)**.

Source: PIB

TELECOMMUNICATIONS (PROCEDURES AND SAFEGUARDS FOR LAWFUL INTERCEPTION OF MESSAGES) RULES, 2024

Context

- The Union Government notified the Telecommunications (Procedures and Safeguards for Lawful Interception of Messages) Rules, 2024.

About

- These rules supersede **Rule 419A of the Indian Telegraph Rules, 1951**.
 - ♦ They empower some enforcement and security agencies to intercept phone messages under certain conditions.
- **Background:**
 - ♦ The safeguards and procedure of interception under Rule 419A were notified in 2007,

consequent to the directions issued by the Supreme Court in People's Union for Civil Liberties (PUCL) versus. Union of India.

- ◆ The Supreme Court, in this case held that the **right to privacy cannot be curtailed arbitrarily** without laying down safeguards which are just, fair and reasonable.

Key Provisions Under the 2024 Rules

- **Authority for Interception:** It authorises Union Home Secretary and the Secretary to the State government in-charge of the Home Department as the competent authority to order the interception of any message.
 - ◆ An officer not below the rank of a Joint Secretary to the Union Government, may also issue such order of interception in 'unavoidable circumstances'.
 - ◆ Any other agency authorised by the Central Government.
- **In remote areas or for operational reasons:** The head or the second senior most officer of the authorised agency at the central level, may also issue an order of interception.
- **Time Frame:** In case the interception order by an authorised agency is not confirmed within seven days, any messages intercepted shall not be used for any purpose.
- **Destruction of Records:** The rules also mandate the destruction of records relating to interception every six months by the authorised agency and review committee.

Rule 419A of the Indian Telegraph Rules, 1951

- It grants the government or authorized agencies the **authority to intercept and disclose messages if necessary for public safety or national security**.
- Interception of messages can be done under conditions like **public emergency, defense, or maintenance of public order**.
- The rule also mandates that telecommunication **service providers cooperate with government authorities** and provide necessary assistance for interception.

Changes as Compared to Rule 419A

- **Scope of the Rule Enhanced:** The condition of interception by authorised agencies only in 'emergent cases', has been relaxed.
 - ◆ Interception by authorised agencies is now possible if it is not feasible for the competent

authority to issue orders in 'remote areas or for operational reasons'.

- **Additional Authorisation:** Under Rule 419A, there was no limit for the number of IGP rank officers at the State level who could be authorised for interception.
 - ◆ But now, in addition to the head of the authorised agency, only (one) the second senior most officer can be authorised for interception.
- **Define Time Frame:** If not confirmed within seven days, any messages intercepted shall not be used for any purpose, including as evidence in court.

Source: TH

THE WEALTH TAX DEBATE: ADDRESSING INEQUALITY

Context

- Wealth inequality has become a pressing issue globally and in India, with the top **1% owning 40.1% of the nation's wealth**.
 - ◆ This concentration of wealth, juxtaposed against widespread poverty and dependence on state welfare programs, has reignited the debate on imposing wealth taxes to address inequality and generate public revenue.

Historical Background

- Wealth tax is not a new concept. It was **introduced in Switzerland (1840), the Netherlands (1892), and Sweden (1911)**.
- In India, the wealth tax was introduced in 1957 by **T.T. Krishnamachari** but was abolished in 2015 due to low revenue collection and high administrative costs.
- Globally, the number of OECD countries levying wealth tax dropped from 12 in 1990 to just four in 2017, owing to similar challenges.

What is Wealth Tax?

- A wealth tax is a levy on the net wealth of individuals, typically including assets like real estate, gold, investments, and luxury items, minus liabilities.
- It aims to reduce inequality by redistributing wealth and raising funds for welfare programs.
- **Example:** Thomas Piketty has proposed a 2% tax on net wealth exceeding 10 crore and a 33% inheritance tax for estates over 10 crore in India.

Arguments in Favour of Wealth Tax

- **Addressing Inequality:** Helps redistribute wealth in an economy where the top 1% control a disproportionate share of resources.
- **Revenue Generation for Welfare:** Funds raised can support public healthcare, education, and social schemes like MGNREGA.
- **Progressive Tax System:** Targets the ultra-rich, ensuring the tax burden is equitable.
- **Moral and Social Responsibility:** Promotes fairness by requiring the wealthiest to contribute more to societal development.

Arguments Against Wealth Tax

- **Administrative Challenges:** Complex valuation of non-liquid assets (e.g., real estate, gold) leads to high costs of collection.
- **Low Revenue Generation:** In 2013-14, India's wealth tax contributed only 1,008 crore, less than 0.1% of total tax revenues.
- **Tax Evasion:** The wealthy often find ways to hide or underreport their wealth.
- **Capital Flight:** High net worth individuals may relocate to tax-friendly countries, as seen in Norway, harming domestic investments.
- **Impact on Wealth Creation:** Discourages entrepreneurship and investment, critical for India's growing economy.

Global Examples

- **Norway:** Raised wealth tax but experienced significant outmigration of millionaires.
- **France:** Abandoned wealth tax in 2018 due to its negative impact on economic growth and replaced it with a property tax.
- **Switzerland:** Continues to levy wealth tax but benefits from high transparency, efficient administration, and a stable economic environment.
- **United States:** Despite calls for a wealth tax, the focus remains on higher capital gains and income taxes for the ultra-rich.

Way Ahead

- **Alternatives to Wealth Tax:** Reform capital gains, property taxes, and inheritance taxes for better targeting and administration.
 - ◆ Increase income tax rates for the ultra-rich to make the system more progressive.

- **Improved Compliance Mechanisms:** Use technology and data analytics to curb tax evasion and track high-value transactions.
- **Focus on Expanding the Tax Base:** Encourage more individuals and businesses to enter the formal tax net to distribute the burden.
- **Transparent Use of Tax Revenue:** Ensure visible improvements in public services like healthcare, education, and infrastructure to build trust among taxpayers.
- **Global Coordination:** Work towards international agreements to minimize capital flight and tax arbitrage by the wealthy.
- **Voluntary Contributions:** Encourage philanthropy and voluntary contributions by the wealthy through incentives.

Source: IE

THE 55TH GST COUNCIL MEETING

Context

- The **55th GST Council** met under the Chairpersonship of the Union Minister for Finance & Corporate Affairs.

Key Highlights

- It postponed a decision on **reducing taxes on health and life insurance**.
- **Premiums on Health Insurance:** Premiums paid by individuals, other than senior citizens, for health insurance with coverage of up to Rs 5 lakh is proposed to be exempted from GST.
 - ◆ However, 18% GST will continue on premiums paid for policies with health insurance cover of over Rs 5 lakh.
- **Fully exempt GST** on gene therapy.
- **Taxes on Food Delivery Platforms:** Cutting taxes on food delivery platforms like Swiggy and Zomato, to 5% (without input tax credit), from the current 18%.
- **The compensation cess regime** comes to an end in March 2026, and the GST Council has set up a panel of ministers, under the Union Minister of State, to decide the future course of the cess.

Goods and Services Tax

- The GST was introduced in **2017** by the **101st Constitutional Amendment Act, 2016** as a comprehensive indirect tax for the entire country.
- It is a destination based tax on **consumption of goods and services**.

- It is levied at **all stages** right from manufacture up to final consumption.
 - ♦ **Only value addition** will be taxed and the burden of tax is to be borne by the final consumer.
- It accrues to the State or the Union Territory where the consumption takes place. It is of 3 types:
 - ♦ **Central GST (CGST):** Levied by the Center.
 - ♦ **State/Union Territory GST (SGST/UTGST):** Levied by States or UTs.
 - ♦ **Integrated GST (IGST):** Tax levied and collected by the Center on all inter-state supplies of goods and/or services.
 - The Center settles accounts with the States/UTs by transferring the SGST/UTGST portion of IGST to the destination state where goods/services were consumed.
- **Four slabs for taxes for both goods and services:** Currently, GST is a four-tier tax structure with slabs at 5, 12, 18 and 28%.
 - ♦ Luxury and demerit goods are taxed at the highest bracket of 28%, while packed food and essential items are at the lowest 5% slab.
- **A cess** is levied on the highest tax slab of 28% on luxury, sin and demerit goods.
 - ♦ The collection from the cess goes to a separate corpus called Compensation fund. It is used to make up for revenue loss suffered by the state due to GST rollout.

GST Council

- The GST Council is a constitutional body **under Article 279A**.
- **Composition:** It is a federal body comprising the Union Finance Minister as its Chairman and Finance Ministers of all States as members
- **Decision Making:** It makes decisions by a **simple majority**, requiring at least **three-fourths** of the weighted votes of the members present.
 - ♦ The central government's votes account for one-third of the total, while all state governments combined hold two-thirds of the voting power.
- **Objective:** The Council operates as a joint forum between the Centre and States, addressing disputes and facilitating uniformity.

Major Functions of the GST Council:

- ♦ The Council determines which products and services fall under the GST and which do not.
- ♦ It frames laws and standard procedures that guide the administration of GST.
- ♦ The Council acts as a dispute resolution mechanism between the Centre and States or among states.
- ♦ The Council drafts special provisions for certain states, particularly for the Northeast and hilly regions.
- ♦ The Council supervises the GST framework and ensures it undergoes periodic reforms to align with current economic realities.

Source: TH

NATIONAL FARMERS' DAY

In News

- National Farmers' Day is celebrated every year on December 23 to honour farmers' contributions to the Indian economy

About the National Farmers' Day

- **History and Origins:** It was established in 2001 and it commemorates the birth anniversary of Chaudhary Charan Singh, India's fifth Prime Minister, known for his advocacy for farmers' rights.
 - ♦ He served as Prime Minister from 1979 to 1980 and was instrumental in land reforms, agricultural productivity improvements, and securing farmers' rights.

Importance

- Farmers are the backbone of India's prosperity, contributing significantly to food security, rural economies, and national progress.
 - ♦ **India's agricultural sector** employs nearly half of the population and contributes **17.7% to the GDP (GVA)**.
 - ♦ In 2023-24, India achieved a record foodgrain production of 332.2 million tonnes, showcasing farmers' dedication.
- National Farmers' Day honors the contributions of farmers and highlights their critical role in India's economy.
- It highlights the challenges faced by farmers, including fair pricing, climate change, and the need for modern agricultural technologies.

Government Initiatives for Farmers

Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)
Launched on 24th February 2019, PM-KISAN aims to supplement the financial needs of landholding farmers across the country. Under this scheme, ₹6,000 is transferred directly into the bank accounts of farmers in three equal, four-monthly installments through the DBT mode. Since its inception, the Government of India has disbursed **over ₹3.46 lakh crore** in 18 installments, benefitting more than 11 crore farmers.

Pradhan Mantri Fasal Bima Yojana (PMFBY)
Launched in 2016, the Pradhan Mantri Fasal Bima Yojana (PMFBY) aims to provide farmers with affordable crop insurance, covering risks from pre-harvest to post-harvest stages against natural adversities, ensuring prompt and adequate compensation. Since its inception, the scheme has insured 68.85 crore farmer applications and disbursed **₹1,65,966 crore** in claims.

Pradhan Mantri Kisan MaanDhan Yojana (PM-KMY)
Launched on 12th September 2019, PM-KMY provides security to vulnerable farmer families by offering a monthly pension. Farmers between the ages of 18 to 40 contribute monthly to the scheme, which is matched by the government. The Life Insurance Corporation (LIC) manages the pension fund. As of 25th November 2024, over 24.66 lakh farmers have enrolled in the scheme, offering a financial safeguard during their old age.

Modified Interest Subvention Scheme (MISS)
The Modified Interest Subvention Scheme (MISS) provides concessional short-term agri-loans with a 7% interest rate on loans up to ₹3.00 lakh, plus an additional 3% subvention for timely repayment, reducing the effective rate to 4%. Since 2014-15, institutional credit flow to agriculture has nearly tripled from ₹8.5 lakh crore to **₹25.48 lakh crore** by 2023-24. The disbursement of easy and concessional crop loans has more than doubled, with the interest subsidy through KCC increasing 2.4 times to ₹14.252 crore in 2023-24.

- **Increased Budget Allocation for Agriculture:** The government significantly increased the budget for agriculture from Rs. 21,933.50 crore in FY 2013-14 to Rs. 1,22,528.77 crore in FY 2024-25.
- **Namo Drone Didi:** Empowers women SHGs with drones for agricultural services like pesticide application (1,261 crore for 2024-26).
- **Soil Health Card Scheme:** Aims to improve soil health and promote efficient fertiliser use (over 24.60 crore cards issued).
- **Clean Plant Programme (CPP):** Enhances quality and productivity of horticulture crops with disease-free planting material (1,765.67 crore).
- **Digital Agriculture Mission:** Supports digital initiatives to boost agriculture, including crop estimation surveys and infrastructure (2,817 crore).

Challenges

- **Climate Change:** Unpredictable weather, droughts, and floods reduce crop yields and cause financial instability.
- **Access to Credit:** Many farmers struggle to obtain affordable credit due to high interest rates and complex procedures.
- **Price Fluctuations:** Fluctuating crop prices and high input costs negatively impact farmers' income.
- **Limited Access to Technology:** High costs and lack of infrastructure prevent farmers from using modern farming techniques.

- **Infrastructure Gaps:** Lack of roads, storage, and cold storage facilities leads to transportation and post-harvest losses.

Conclusion:

- As India continues to develop and urbanize, it is crucial to remember the vital role that farmers play in the nation's progress.
- Therefore, addressing the challenges is crucial for ensuring the sustainability and growth of the agricultural sector.
- Government schemes ensure financial security, enhance productivity, and promote sustainable growth for farmers.
- Ongoing initiatives aim to empower farmers, improve infrastructure, and set the stage for a resilient agricultural ecosystem, vital for India's growth and development.

Source: PIB

SPEED GUN

In News

- To combat speeding vehicles, traffic police across India have increasingly adopted speed guns as a crucial enforcement tool to ensure road safety.

About Speed Gun

- **Definition:** Devices used to measure the speed of moving objects without contact, commonly used by traffic police to enforce speed limits.
- **Working:**
 - ♦ **Doppler effect:** They rely on the change in frequency of waves (usually radio waves) reflected off a moving vehicle.
 - ♦ **Higher frequency = approaching:** If the vehicle is moving towards the gun, the frequency of the reflected waves increases.
 - ♦ **Lower frequency = moving away:** If the vehicle is moving away, the frequency decreases.
 - ♦ **Speed Calculation:** The gun calculates the speed based on this frequency difference.

Limitations

- **Beam Divergence:** Radio waves can spread out, potentially measuring the speed of multiple vehicles simultaneously, leading to inaccurate readings.

- **Interference:** Continuous-wave radar can be affected by reflections from multiple vehicles or other objects, causing errors.
- **Cost:** Advanced systems are needed to compensate for these limitations, making them more expensive.

Transition to LIDAR Speed Guns

- **LIDAR (Light Detection and Ranging):** Uses laser light instead of radio waves for better targeting and accuracy.
- **Advantages:** Minimal beam divergence ensures precise measurements.
 - ♦ Superior performance in high-traffic environments.

Source: TH

INDIA STATE OF FOREST REPORT 2023

Context

- The Union Minister for Environment, Forest and Climate Change, released the India State of Forest Report 2023 (ISFR 2023) at **Forest Research Institute, Dehradun**.

About

- It is published **every two years** by the **Forest Survey of India** under the Ministry of Environment, Forests and Climate Change.
 - ♦ **The first survey** was published in **1987**, and ISFR 2023 is the 18th such report in the series.
- The report contains information on forest cover, tree cover, mangrove cover, growing stock, carbon stock in India's forests, instances of forest fire, Agroforestry, etc.

Major Findings of ISFR 2023

- The **Forest and Tree cover** of the country is **8,27,357 sq km** which is **25.17 percent** of the geographical area of the country, consisting of **7,15,343 sq km (21.76%) as forest cover and 1,12,014 sq km (3.41%) as tree cover**.
- **19 states/UTs** have above **33 percent** of the geographical area under forest cover.
 - ♦ Out of these, eight states/UTs namely Mizoram, Lakshadweep, A & N Island, Arunachal Pradesh, Nagaland, Meghalaya, Tripura, and Manipur have forest cover above **75 percent**.
- There is an increase of **1445 sq km** in the forest and tree cover of the country which includes 156 sq km increase in the forest cover and 1289 sq km increase in tree cover.

- ♦ **Top four states showing maximum increase in forest and tree cover:** Chhattisgarh, Uttar Pradesh, Odisha and Rajasthan.
- ♦ **Top three states showing maximum increase in forest cover:** Mizoram, Gujarat and Odisha.
- ♦ **Area wise top three states having largest forest and tree cover:** Madhya Pradesh, Arunachal Pradesh, and Maharashtra.
- ♦ **Area wise top three states having largest forest cover:** Madhya Pradesh, Arunachal Pradesh and Chhattisgarh.
- In terms of **percentage of forest cover with respect to total geographical area, Lakshadweep (91.33 percent)** has the highest forest cover followed by **Mizoram (85.34 percent)** and **Andaman & Nicobar Island (81.62 percent)**.
- The total annual potential production of **timber from trees** outside forest has been estimated as **91.51 million cum**.

Achievements

- **The extent of bamboo bearing area** for the country has been estimated as 1,54,670sq km.
 - ♦ As compared to the last assessment done in 2021 there is an **increase of 5,227 sq km** in bamboo area.
- **The total carbon stock** in the country's forest is estimated to be **7,285.5 million tonnes**.
 - ♦ There is an increase of **81.5 million tonnes** in the carbon stock of the country as compared to the last assessment.

Concern

- India's mangrove cover has decreased. It is now **4,991.68 sq km**, a decrease of **7.43 sq km**.
- **Gujarat**, has lost the highest area under mangroves, when compared to the last assessment – **36.39 sq km**.

Forest Survey of India

- **FSI was established in 1981** and is under the Ministry of Environment, Forest and Climate Change, Government of India.
- It succeeded the **Preinvestment Survey of Forest Resources (PISFR)**, initiated in **1965** with Food and Agriculture Organization (FAO) and United Nations Development Programme (UNDP) support.
- **Headquartered:** Dehradun
- **It conducts surveys and research** to monitor India's forest and land resources, providing data for national planning, conservation, and sustainable management.

Source: PIB

NEWS IN SHORT

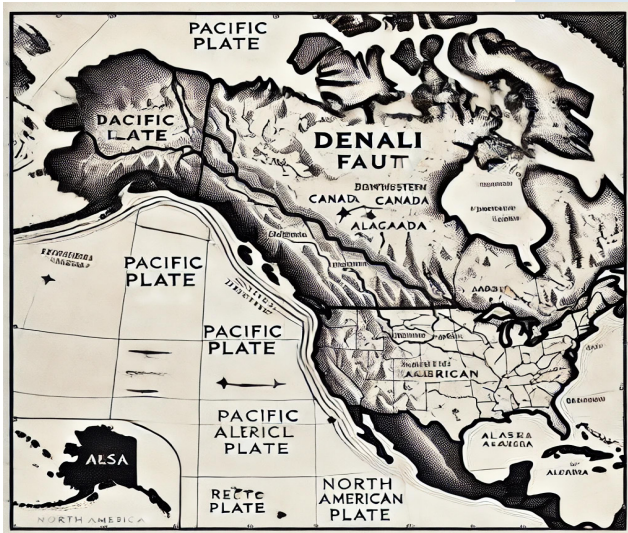
DENALI FAULT

Context

- Recent research highlights three geological sites along the Denali Fault that were once a united feature but were later separated by tectonic activity.

About

- The **Denali Fault** is a major **intracontinental dextral (right lateral) strike-slip fault** in western North America, spanning from northwestern **British Columbia, Canada, to central Alaska, USA**.
- Tectonic Setting:** It forms a boundary between the **Pacific Plate** and the **North American Plate**.
 - The Pacific Plate is actively subducting (sliding under) the North American Plate, leading to immense geological stress and deformation in the region.
- Seismic Activity:** The Denali Fault was the source of a magnitude 7.9 earthquake in **2002**.



Source: Phys.org

PANAMA CANAL

Context

- US President-elect Donald Trump has threatened to reclaim the Panama Canal, citing rising tariffs and concerns over sovereignty.

About

- Panama Canal**, is an **artificial 82-km waterways** formally inaugurated in **1914**.

- It is connecting the **Atlantic Ocean** with the **Pacific Ocean** by providing a shortcut through the **Isthmus of Panama**.
- The Panama Canal locks at each end lift ships up to **Gatun Lake**, an artificial freshwater lake 26 m above sea level created by damming up the **Chagres River** and **Lake Alajuela**.
- Significance:** Nearly 6% of global trade (by value) passes through the canal, making it one of the world's most critical maritime trade routes.



Source: IE

SAGAR ISLAND

In News

- Sagar Island in West Bengal, where the Gangasagar Mela takes place every January, is experiencing severe climate change impacts.

About Sagar Island

- Sagar Island, also known as **Ganga Sagar** or **Sagardwip**, is located in the Ganges delta on the continental shelf of the **Bay of Bengal**.
- It consists of 43 villages and is separated from **Mahisani Island by the River Muriganga Batala**.
- The island, along with Mahisani and Ghoramara, is classified under the sand group category.
- It is a significant religious site for Hindus, especially during the Makar Sankranti festival, where pilgrims honor the Sun.
 - The Kapil Muni Temple on the island is a major pilgrimage center.

Source: DTE

PASHMINAS

Context

- J&K Chief Minister said his government will ensure that famed **Pashmina shawls** were not considered in the higher slabs of Goods and Services Tax (GST).

About

- The word “pashmina” is derived from the **Persian word pashm, meaning “soft wool.”**
- It is made from the soft wool of the **Pashmina goat**, primarily found in the high-altitude regions of the Himalayas, **particularly in Ladakh.**
 - ◆ These goats develop a unique undercoat to withstand the harsh winters, and it is this undercoat that is meticulously collected to create Pashmina shawls.
- Creating a Pashmina shawl is a **labor-intensive process** that involves several stages, each requiring a high level of skill and dedication.
 - ◆ Known for its exceptional warmth, softness, and lightweight texture, pashmina is **considered one of the finest types of wool.**
- Due to their quality and rarity, pashmina shawls are regarded as a **symbol of elegance and luxury.**

Source: TH

PM MODI AWARDED ORDER OF MUBARAK AL-KABEER

Context

- Prime Minister Narendra Modi was awarded **Kuwait’s highest honour ‘The Order of Mubarak Al Kabeer’.**

About

- It is the **20th international award** bestowed upon him by a country.
- ‘The Order of Mubarak Al Kabeer’ or the Order of Mubarak the Great, is a **knighthood order of Kuwait.**
- The award was **instituted in 1974**, in the memory of **Mubarak Al Sabah** — also known as Mubarak al-Kabeer or Mubarak the Great — **who ruled Kuwait from 1896 to 1915.**
 - ◆ Under his reign, **Kuwait got more autonomy** from the Ottoman Empire.

- It is awarded to **Heads of State and foreign Sovereigns** and members of foreign royal families in **sign of friendship.**
- It has been previously awarded to foreign leaders like Bill Clinton, Prince Charles and George Bush.

Source: IE

UN INTERNAL JUSTICE COUNCIL

In News

- Retired Supreme Court judge Madan B Lokur has been appointed as the chairperson of the **United Nations Internal Justice Council** for a term ending on November 12, 2028.
 - ◆ The appointment was confirmed through a letter dated December 19, 2024, signed by **UN Secretary-General António Guterres.**

United Nations Internal Justice Council

- **Establishment and Purpose:** The General Assembly created the Internal Justice Council (IJC) to ensure independence, professionalism, and accountability in the UN’s internal justice system.
- **Composition:** The IJC consists of five members:
 - ◆ A staff representative.
 - ◆ A management representative.
 - ◆ Two distinguished external jurists (one nominated by staff, one by management).
 - ◆ A chairperson, selected by consensus from the four other members.
- **Functions and Responsibilities:** The IJC is responsible for:
 - ◆ Searching for suitable candidates to fill vacancies in the UN Dispute Tribunal (UNDT) and UN Appeals Tribunal (UNAT), conducting interviews if necessary.
 - ◆ Recommending two or three candidates per vacancy, with attention to geographical distribution.
 - ◆ Providing views on the implementation of the justice system to the General Assembly.
- **Appointment of Judges:** Judges for the UNDT and UNAT are appointed by the General Assembly based on recommendations from the IJC, following the criteria set out in General Assembly resolution 62/228.
 - ◆ Judges from the same nationality cannot sit on the same tribunal.

Source: IE

AUTOMATED & INTELLIGENT MACHINE-AIDED CONSTRUCTION (AIMC) SYSTEM

In News

- The Ministry of Road Transport & Highways (MoRTH) is expediting the use of **Automated & Intelligent Machine-aided Construction (AIMC)** systems for faster and more efficient completion of National Highway projects.

AIMC system

- AIMC will provide real-time data on project status, which will be shared with stakeholders, including MoRTH.
- AIMC is being tested in the 63-km Lucknow-Kanpur Expressway Project (Awadh Expressway).
 - Intelligent machines like GPS-aided motor graders, intelligent compactors, and stringless pavers are being used.

How AIMC Machines Work?

- GPS-aided Motor Grader:** Uses GNSS data and angle sensors to adjust the blade in real-time, ensuring precise grading and surface alignment according to design plans.
- Intelligent Compaction Roller (IC Roller):** Helps in soil compaction and reduces post-construction consolidation issues, ensuring road durability and minimizing air pockets or water in materials.

Need and Importance of AIMC:

- AIMC integrates intelligent machines to enhance the durability, productivity, and timely completion of road projects.
 - Current delays in projects are attributed to outdated technologies, poor contractor performance, and lack of up-to-date information.
- Real-time data from construction and surveys will ensure quality control at each stage, minimizing delays and enhancing efficiency.
- It reduces manual labor and speeds up construction, including night work.

Source: IE

BIO-BITUMEN

In News

- The Union Minister inaugurated India's first bio-bitumen-based National Highway stretch on the Nagpur-Mansar Bypass (NH-44) in Maharashtra.

About Bio-Bitumen

- Definition:** Bio-bitumen is a greener alternative to traditional petroleum-based bitumen, which is a major component of asphalt used in road construction.
- Renewable Sources:** It's derived from renewable sources like crop stubble, vegetable oils, algae, or lignin (a complex polymer found in plants). This makes it a more sustainable and eco-friendly option.

Benefits of Bio-bitumen

- Reduced Emissions:** Bio-bitumen significantly reduces greenhouse gas emissions compared to petroleum-based bitumen. This is crucial for mitigating climate change.
- Enhanced Durability:** It offers superior strength and durability, leading to longer-lasting roads and reduced maintenance needs.
- Waste Reduction:** Using agricultural residues like crop stubble to produce bio-bitumen helps reduce waste and prevent harmful practices like stubble burning.

Applications

- Road Construction:** Bio-bitumen can directly replace petroleum bitumen in asphalt mixtures, making roads more sustainable.
- Modifier and Rejuvenator:** It can also be used to enhance the properties of traditional bitumen or to rejuvenate aged asphalt pavements.
- Industrial Uses:** Bio-bitumen has potential applications in waterproofing, adhesives, and other industrial materials.

Significance of the NH-44 Bio-Bitumen Stretch

- The Nagpur-Mansar Bypass on NH-44 demonstrates the viability of bio-bitumen for sustainable highway construction, paving the way for eco-friendly infrastructure in India.
- This initiative aligns with India's goals of reducing carbon emissions and promoting renewable resources.

Source: TOI

POSTHUMOUS REPRODUCTION

Context

- The Delhi High Court allowed a hospital to release the frozen sperm of a deceased man, stating there is no prohibition under Indian law if consent of the owner is proven.

What is Posthumous Reproduction?

- **Posthumous reproduction (PHR)** is a process that uses **assisted reproductive technology (ART)** to create a genetic offspring after a parent's death. It can involve the use of frozen sperm, embryos, or ova.
- **Assisted reproductive technologies (ART)** refer to a range of fertility treatments aimed at aiding reproduction for couples suffering from infertility or to persons who may wish to have a child through artificial methods.
- These arrangements include;
 - ♦ **In-vitro fertilisation** (fertilising an egg in the lab),
 - ♦ **Gamete donation** (sperm or egg), and
 - ♦ **Gestational surrogacy** (where the child is not biologically related to the surrogate mother).

Source: TH

MOON

Context

- As per the journal Nature, evidence supports an older age for the formation of the Moon, around 4.51 billion years ago.

About

- The Moon is thought to have been formed through a **collision between the early Earth and a Mars-sized protoplanet**.

- The timing of this event has been estimated by dating lunar rock samples, placing the Moon's age at **approximately 4.35 billion years old**.

Facts Related to Moon

- **Size:** The Moon is about 1/4th the size of Earth, with a diameter of 3,474 km.
- **Distance from Earth:** 384,400 km away from Earth.
- **Gravity:** 1/6th that of Earth's, which is why astronauts appear to float or move in slow motion.
- **Phases:** The Moon has eight main phases, from new moon to full moon, occurring in a 29.5-day cycle.
- **Surface:** The Moon's surface has craters, mountains, and flat plains called Maria, which are ancient volcanic basins.
- **Thin Atmosphere:** The Moon has a very thin and weak atmosphere, called an exosphere. It does not provide any protection from the Sun's radiation or impacts from meteoroids.
- **Tidal Locking:** The same side of the Moon always faces Earth due to tidal locking, meaning its rotation period is the same as its orbit around Earth.
- **Lack of Water:** There is no liquid water on the Moon, but there may be frozen water at its poles.
- **No Sound:** Since the Moon has a thin atmosphere, sound cannot travel there.



Source: TH