NETHERLANDS

Venice

GERMANY

Athens

Suez

Istanbul

TURKE

DJIBOUTI

KENYA

Lamu

Belt and Road Initiative (BRI)

IRAN

PAKISTAN

Indian

Gwadar

INDIA

Colombo

Overland route of Belt and Road Initiative

Maritime route of Belt and Road Initiative

Beijing

SINGAPORE

INDONESIA

Xi'an

VIETNAM

Hanoi •

Dalia

Fuzhou

KAZAKHSTAN

Kolkata

Brazil decided against joining China's Belt and Road Initiative (BRI)

Brazil will be the second member of the BRICS after India not to endorse the BRI.

Previously countries like Italy and Philippines have announced to withdraw from BRI.

About Belt and Road Initiative (BRI)

- Genesis: Initiated as 'One Belt One Road' in 2013, seeks to connect Asia with Africa and Europe via land and maritime networks.
- Aim: Improving regional integration, increasing trade and stimulating economic growth.
- > It comprises:
 - Silk Road Economic Belt (A trans-continental passage)
 - Maritime Silk Road (A sea route)
- It involves major investments in infrastructure projects such as ports, etc.

Key Concerns of India regarding BRI

- Undermining India's sovereignty and territorial integrity: China's BRI project, the China-Pakistan Economic Corridor (CPEC) passes through Gilgit Baltistan region of Pakistan-occupied Kashmir.
- **Competition:** BRI's financial incentives and low-interest loans for infrastructure may undercut Indian influence in South Asia.
 ⊕ Unsustainable debts by China to partner countries lead to **debt trap** making them vulnerable to China's influence.
- Security: China's growing influence in the Indian Ocean region is perceived by India as a security threat (String of Pearls Policy).

Key Steps taken to counter BRI

- Partnership for Global Infrastructure and Investment (PGII) and Build Back Better World (B3W) Partnership by G7 group
- India-Middle East-Europe Economic Corridor (IMEC), launched during India's G-20 Presidency
- International North South Transport Corridor (INSTC), Connecting India Ocean and Persian Gulf to the Caspian Sea.

Review of Maritime Transport 2024 - Navigating Maritime Chokepoints Report Released

Report has been released by the United Nations Conference on Trade and Development (UN Trade and Development).

Key findings

- Global maritime trade grew by 2.4% in 2023, recovering from a 2022 contraction, but the recovery remains fragile.
- Key maritime chokepoints, like the Suez and Panama Canals faced unsettling disruptions.

About Chokepoints

- A chokepoint is a geographical feature or passageway (Includes valley, strait etc.) that is narrow and strategic.
- Geo-strategic Significance
 - → Facilitates Connectivity: E.g. Suez Canal (Connects the Mediterranean Sea with the Red Sea) is crucial for trade between Europe and Asia.
 - Energy Security: E.g. Strait of Hormuz (Connects the Persian Gulf with the Gulf of Oman and the Arabian Sea) witness significant world's petroleum transportation.
- Key Reasons behind disruptions
 - Climate-induced low water levels. E.g. Panama Canal (connecting the Pacific and Atlantic Oceans)
 - Geopolitical tensions and conflicts. E.g. Yemen's Houthi rebels attacked ships in Bab al-Mandeb Strait (Connects the Red Sea to the Gulf of Aden and the Indian Ocean)
- Impacts of disruptions:
 - Straining supply chains (such as energy supplies for India) and raising costs, etc.
 - → Rising shipping costs due to long routes. E.g. Rerouting around the Cape of Good Hope (southern tip of Africa)

Other Key Chokepoints of the World

- Strait of Gibraltar: Links the Mediterranean Sea with the Atlantic Ocean
- Strait of Malacca: Connects the Indian Ocean with the South China Sea
- Turkish Straits(Bosporus and Dardanelles): Connects the Black Sea with the Mediterranean Sea









Key decisions taken to strengthen Gram Panchayats across the country

The decisions were taken by Central Empowered Committee (CEC) of the Revamped Rashtriya Gram Swaraj Abhiyan (RGSA).

Challenges faced by Panchayati Raj Institutions (PRIs)

- Skilling and Training gaps: lack of adequate skills hinders competency in rural governance and undermines capacity-building efforts
- Lack of support staff: such as secretaries, junior engineers, computer operators, and data entry operators.
- ➤ Lack of digital Infrastructure especially in rural areas: leads to Urban Rural digital divide
- **▶ Other challenges:** service delivery issues, **lack of literacy** etc.

Initiatives taken by CEC to address these challenges

- Adoption of a Standardized Honorarium System under RGSA: to ensure fair compensation and bring consistency in training.
- > Funding for long-term domestic training programs: to train panchayat officials in spatial planning, disaster management etc.
- Augmenting Panchayat Infrastructure:
 - construction of Gram Panchayat Bhawans with Common Service Centers to improve infrastructure and promote digital governance
 - Investment in Panchayat Infrastructure in the Vibrant Villages of the Border Areas of North East and Jammu and Kashmir.

Revamped Rashtriya Gram Swaraj Abhiyan (RGSA).

- ▶ Revamped RGSA aims to develop Panchayati Raj Institutions (PRIs) as vibrant center's of local self-governance with focus on localization of Sustainable Development Goals (SDGs).
- Type: Centrally Sponsored Scheme
- Tenure: 2022-23 to 2025-26
- Coverage: All States and UTs and also includes institutions of rural local government in non-Part IX areas, where Panchayats do not exist.

Biological Diversity Rules, 2024 Notified

Ministry of Environment, Forest and Climate Change notified them in accordance with the Biological Diversity Act of 2002.

- New Rules will replace Biological Diversity Rules, 2004.
- Also these rules will ensure the implementation of the Biological Diversity (Amendment) Act, 2023.
 - Amendment of 2023 was done to facilitate fast-tracking of processes for research, encouraging Indian system of medicine
 etc.
- ▶ Rules outline various provisions related with National Biodiversity Authority (NBA), Penalties, etc.

Key Highlights of the Rules

- National Biodiversity Authority (NBA):
 - Chairperson shall be appointed by the Central Government, will hold office for a term of three years' and shall be eligible for re-appointment.
 - ⊕ General Functions of the NBA
 - Administering the National Biodiversity Fund (NBF), established under the Act of 2002.
 - Granting approvals for biodiversity-related agreements.
 - Providing technical guidance and support to state bodies.
 - Developing and maintaining databases related to biological resources and traditional knowledge.
- Intellectual Property Rights: Approval of Authority will be required before the actual grant of the IPR.
- Penalties for Contraventions: Penalties for violations range from ₹1 lakh to ₹50 lakh, with additional fines for repeated violations.
 - All penalties collected go to the NBF or relevant state funds, supporting biodiversity initiatives.

About Biological Diversity Act 2002

- The Act was enacted to help India meet the objectives of the United Nations Convention on Biological Diversity (CBD) 1992.
- Act provides for a decentralised three-tiered mechanism for regulation.
 - NBA at the national level,
 - O State Biodiversity Boards (SSB) at the state level, and
 - Biodiversity Management Committees (BMC) at the local body level.









New Study explores Diamond Dust as a potential Geoengineering Strategy **Cooling of Planet**

It proposes that spraying about 5 million tonnes of diamonds into Earth's upper atmosphere annually for 45 years could lower global temperatures by 1.6 °C.

Benefits of using diamond dust

- **Enhanced Properties:** It reflects light and heat effectively, remains airborne longer, and is less likely to clump together in atmosphere
- ➤ Safer Alternative: Unlike sulfur dioxide, which poses risks like acid rain and ozone depletion, diamond dust is chemically inert

What is Geoengineering /Climate Engineering?

- It is large-scale intervention in the Earth's climatic system, with an aim of reducing global warming.
- There are two main categories of geo-engineering:
 - atmosphere by enhancing carbon sinks of the ocean/ terrestrial biosphere or by directly capturing CO2 from the atmosphere.
 - Direct Air Carbon Capture and Storage (DACCS): uses chemical processes to capture, separate and then store CO2 directly from ambient air.
 - **Ocean fertilization:** Addition of nutrients(e.g iron) to enhance the growth of phytoplankton that remove
 - greenhouse gases by causing earth to absorb less solar
 - Stratospheric aerosol injection: Injecting reflective particles such as sulfate aerosols into the stratosphere to reflect incoming radiation
 - Marine cloud brightening: injection of salt spray into shallow marine clouds to brighten them, increasing their reflection of sunlight

Concerns associated with Geo-engineering technology

- Undermine existing climate policies and divert funding from vital emission reduction and adaptation efforts.
- **High cost** of developing and deploying these tools
- Initiation of a chain reaction with risks to human, oceans, global temperatures etc

The 2024 Report of the Lancet Countdown on Health and Climate Change Released

The annual report provides an independent assessment of progress towards the goals of the Paris Agreement

Key findings

- Increased in Temperature: Annual mean surface temperature reached 1.45°C above pre-industrial levels in 2023, close to breaching the 1.5°C limit set by the Paris Agreement.
- ➤ Health Impacts: Heat-related mortality among people over 65 years by 167% since the 1990s. It also affects physical activity, sleep quality etc.
 - Indians faced moderate to serious risk of heat stress for 100 days/year, amounting to 2,400 hours of heat (2023)
- **Economic Losses:** The average annual economic losses from weather-related extreme events increased by 23% from 2010-14 to 2019-23, to US\$227 billion.
 - 181 billion potential labour hours were lost due to heat exposure in 2023 in India
- Inadequate Adaptation: Many countries lack sufficient health emergency management capacities, with only 68% reporting high implementation rates. Only 35% have early warning systems for heat-related illnesses.

Key Recommendations

- Complete Vulnerability and Adaptation Assessments: Ensure that countries fulfill their commitments to better understand and address the health impacts of climate change.
- Implement Health-Focused Climate Policies: Develop and enforce policies that prioritize health in climate action
- **Encourage Sustainable and Rapid Energy Transition:** to clean energy sources, reducing reliance on fossil fuels, and promoting renewable energy technologies.

Also in News



World Food Programme (WFP)

The WFP warns that the humanitarian crisis in Gaza could escalate into a famine.

About United Nations WFP(HQ-Rome)

- Genesis: 1961.
- It is the world's largest humanitarian agency and saves lives in emergencies and uses food aid to create a path to peace, stability, and prosperity for those recovering from conflict, disasters, and climate change effects.
- Funding: voluntary donations from governments, corporates and private donors.
- It has been operating in India since 1963 and has a presence in over 120 countries and territories.
- WFP is awarded the Nobel Peace Prize in 2020



Transfer Pricing

The Central Board of Direct Taxes (CBDT) has released a notification related to tolerance limit for transfer pricing.

About Transfer Pricing

- Transfer pricing is a method used by multinational companies to move profits from the countries where they do business to tax
- It is done by selling goods and services to themselves at inflated prices.
- CBDT sets tolerance limits to keep it as per arm's length transaction

About Arm's Length Transaction

- It is a valuation principle commonly applied to commercial and financial transactions between related companies.
- It says that transactions should be valued as if they had been carried out between unrelated parties, each acting in his own best









U-WIN portal

Prime Minister of India launched U-WIN portal.

About U-WIN

- It captures each & every vaccination event of all pregnant women & children under Universal Immunization Programme (UIP).
 - UIP is a part of the Reproductive and Child Health (RCH) Program under National Health Mission (NHM).
- It will ensure timely administration of life-saving vaccines to pregnant women and children (from birth to 16 years) against 12 vaccine-preventable diseases.



Civil Registration System (CRS)

Union Home Minister recently launched Civil Registration System (CRS) mobile application.

Application is developed by the Registrar General and Census Commissioner of India, the app is expected to reduce the time required for these registrations seamlessly.

About CRS

- It is a unified system for continuous, mandatory, and permanent documentation of vital events, including births, deaths, and stillbirths, along with their associated details.
- The Registration of Births and Deaths Act, 1969 mandates that all births and deaths must be officially registered
- It operates under the authority of the Registrar General and Census Commissioner of India
- It is included in the **concurrent list** under Schedule Seven.



Raigad Fort

This year's Rashtriya Ekta Diwas theme celebrates the heritage of Raigad Fort.

About Raigad Fort:

- Hill fort situated in Raigad district, Maharashtra.
- Chhatrapati Shivaii Maharai established his capital here in 1674 and he was also coronated in this fort.
- Surrounded by valleys shaped by the Kal and Gandhari rivers.
- labeled as Gibraltar of the east by British historians.
- Nominated for UNESCO World Heritage under the "Maratha Military Landscapes of India".
- Main gates: Nanne Darwaza and Maha Darwaza.



Hydrogels

A new way discovered to create hydrogels using tiny protein fragments of just five amino acids from the SARS-CoV-1 virus.

It could help improve targeted drug delivery & reduce side effects.

About Hydrogels

- These are crosslinked polymer chains with three-dimensional (3D) network structures, which can absorb relatively large amounts of fluid.
- These are known to be **suitable for drug delivery** because of their swelling behaviour, mechanical strength and biocompatibility.
- These materials could revolutionize tissue engineering, potentially aiding in organ regeneration.



Artemis Mission

NASA has recently revealed 9 potential landing sites for Artemis III mission

About Artemis III

- It will take humans to the Moon's South Pole for the first time.
- Artemis III (followed with two test missions) planned for 2026, will mark humanity's first return to the lunar surface in more than 50 years
- Artemis Program includes sending the first woman and first person of color on the Moon
- India had become the first country to land a spacecraft (Chandrayaan-3 mission) in the moon's south polar region.
- - Search for the Moon's water and use it.
 - Study the Moon to discover its mysteries. €
 - Learn how to live and work on the surface of another celestial **⊕** body
 - Test technologies we need before sending astronauts on missions to Mars



Standard Veterinary Treatment Guidelines

Recently, the Ministry of Animal Husbandry, Dairying and Fisheries released Standard Veterinary Treatment Guidelines (SVTG)

What are SVTG:

- It is a comprehensive framework outlining the best practices for veterinary care.
- The guidelines aim to enhance animal health and productivity while supporting the national action plan against antimicrobial resistance.
- The guidelines promote use of ayurveda, and regulate the use of antibiotics in veterinary treatments.

Place in News



Armenia (Capital: Yerevan)

As per reports, Armenia has emerged as India's one of leading defence export destination. **Political Boundaries**

- Location: Landlocked country of Transcaucasia (populated region to the south of the Caucasus Mountains).
 - Border: Azerbaijan, Turkey, Nakhchivan Autonomous Republic (an exclave of Azerbaijan), Georgia, and
 - Nagorno-Karabakh is a disputed territory between Armenia and Azerbaijan.

Geographical features

- Highest Peak: Mount Aragats (Alaghez)
- Rivers: Aras River























BLACK SEA

TURKEY

NEAN



GEORGIA

SYRIA

YEREVAN *

IRAQ



ARMENIA

AZERBAIJAN



BENGALURU

BHOPAL

CHANDIGARH

DELHI

GUWAHATI

HYDERABAD

JODHPUR

LUCKNOW

PRAYAGRAJ

PUNE