Italy withdraws from China's Belt and Road Initiative (BRI)

- Italy **was** the **only G7 nation** to join BRI in 2019.
- **Reason for Italy's withdrawal from BRI**
  - **Widening trade deficit** (19 billion euros to 32.4 billion euros).
  - **Decreasing FDI from China** ($650 million in 2019 to $33 million in 2021).
  - **Beijing's alignments with Moscow** have made European countries more skeptical of China's intentions.
- Earlier, **Sierra Leone** in 2018 and **Philippines** in 2023 has announced their **exit from BRI**.
- Launched in **2013 as One Belt One Road**, BRI is China-led **infrastructure project** to **link Southeast Asia, Central Asia, Gulf region, Africa and Europe** with a network of **land and sea routes.**
  - It aims at **deepening regional integration, promoting trade**, and stimulating economic growth.
  - Two primary components: **Silk Road Economic Belt** and **Maritime Silk Road**.
- **Concerns associated with BRI**
  - **Unsustainable debts** by China to partner countries lead to **debt trap** making them vulnerable to China's influence.
  - **Implementation problems** like corruption scandals, labour violations, environmental hazards etc.
- **India's concerns**
  - BRI passes through **Gilgit Baltistan region** and thus **violates India's sovereignty and territorial integrity.**
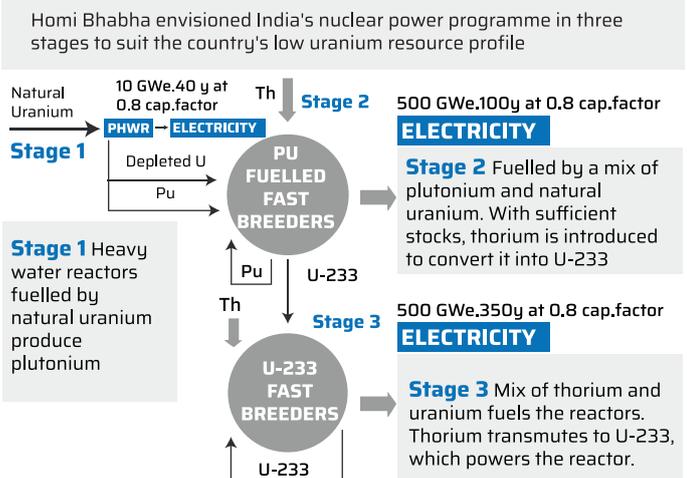 - **Undermine India's influence over smaller South Asian countries** and Indian Ocean littoral states.

Belt and Road Initiative expansion plans

500km / 200 miles

— Existing railways — Planned/under construction railways
• Key stations • Maritime road • Economic belt

Initiatives to counter BRI
- **Partnership for Global Infrastructure and Investment** (PGII)
- **India-Middle East-Europe Economic Corridor** (IMEC).
- **International North South Transport Corridor** (INSTC).

China launches the world's first fourth-generation nuclear reactor

- It uses **gas (helium) for cooling unlike conventional power plants** that use pressurised water.
- It can produce **heat, power, and hydrogen** and uses a **Small Modular Reactor(SMR) design.**
- **SMRs:** These are advanced nuclear reactors with power capacity of up to **300 MW(e) per unit**. These are:
  - **Small:** physically a fraction of the size of a conventional nuclear power reactor.
  - **Modular:** making it possible for systems and components to be factory-assembled and transported as a unit to a location for installation.
  - **Reactors:** harnessing nuclear fission to generate heat to produce energy.
- **SMRs advantages over traditional reactors:**
  - **Low cost and construction time** due to factory-built SMRs, not being built on-site.
  - **Simpler and Safer** due to reduced fuel requirements.
  - They can be deployed incrementally to match increasing energy demand.
  - Have **increased safety** and lower impacts in case of accidentsz
- **Nuclear power in India:** India has **22 operating reactors, with an installed capacity of 7480 MWe.**
  - India is currently on the **second stage of its three-stage** nuclear programme (See infographic).

INDIA'S THREE-STAGE NUCLEAR PROGRAMME

Homi Bhabha envisioned India's nuclear power programme in three stages to suit the country's low uranium resource profile

Natural Uranium

10 GWe.40 y at 0.8 cap.factor

Th — **Stage 2** 500 GWe.100y at 0.8 cap.factor

PHWR → ELECTRICITY

Stage 1

Depleted U
Pu

PU FUELLED FAST BREEDERS

ELECTRICITY

Stage 2 Fuelled by a mix of plutonium and natural uranium. With sufficient stocks, thorium is introduced to convert it into U-233

Stage 1 Heavy water reactors fuelled by natural uranium produce plutonium

Pu | U-233

Th — **Stage 3** 500 GWe.350y at 0.8 cap.factor

U-233 FAST BREEDERS

ELECTRICITY

Stage 3 Mix of thorium and uranium fuels the reactors. Thorium transmutes to U-233, which powers the reactor.

U-233

UGC approves Draft Guidelines titled "Introduction of Short-Term Skill Development Courses in Higher Educational Institutes (HEIs)

- University Grants Commission (UGC) draft guidelines are in **line with National Credit Framework (NCrF)** as **specified in National Education Policy 2020.**
- **Objective of Guidelines**
  - **Integrating skilling into higher education** at all levels and **introducing short-term industry-relevant courses (certificate courses)** in HEIs to **bridge skill gap and boost student's productivity** at workplace.
  - **Provide holistic and specialised education** with **focus on practical training.**
- **Key highlights**
  - Anyone who has **passed 10+2 or Senior Secondary examination** or **its equivalent** is eligible for admission to short-term courses.
  - HEIs will offer **credit-linked Short-Term Skill Development (STSD) certificate** courses of **3-6 months.**
  - HEIs can **offer STSD courses in several areas including** Robotics; Cloud Computing; Cyber Security; 5G Connectivity; Architectural Drafting; Basic 3D design; etc.
- **Need to bridge skill gap**
  - **Promote better employability, diversity and equal opportunities** for all graduates.
  - **Acquire new-age** skills as pre fast evolving job market.
  - **Develop Human Capital** to facilitate demographic dividend.
  - Foster more collaborative **Industry Academia linkage.**
- **Initiatives for skilling in HEIs**
  - **Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS)** provides industry apprenticeship opportunities.
  - **Earn-while-learn scheme** (proposed by UGC) **help socio-economically disadvantaged students** to earn and get skilled.

Government banned using 'sugarcane juice and sugar syrup' for ethanol production

- The directive has been issued as per **Sugar (Control) Order 1966 for the 2023-24** supply year.
- **Sugar (Control) Order 1966 provides** power to the Government to regulate the production of sugar, restrict sales, etc.
- The government has **allowed the use of 'B-molasses'** for ethanol production.
  - Molasses is a **viscous, dark, and sugar-rich by-product** of sugar extraction from the sugarcane. It is of different types like A, B, and C molasses **depending on the stage of extraction.**
- **Other byproducts of the sugarcane industry:** cane tops, bagasse, and filter muds
- **Rationale of the decision:** to maintain **adequate domestic sugar availability** and **price stability,** due to an estimated fall in sugar production.
- Ethanol is one of the **principal biofuels**, which is naturally produced by the **fermentation of sugars by yeasts** or via **petrochemical processes such as ethylene hydration.**
- **Initiatives** to promote the production of ethanol:
  - **National Policy on Biofuels - 2018:** to enable the availability of biofuels in the market thereby increasing its blending percentage.
  - **Ethanol blending Program** with the target of 20 percent ethanol blending in petrol by 2025.
  - **PM JI-VAN YOJANA** for providing **financial support** for setting up **second-generation (2G) ethanol projects.**

50 Indian cough syrup manufacturers fail to clear quality tests: Central Drugs Standard Control Organisation (CDSCO) Report

- CDSCO report stated that around 6**% of samples taken for testing** from 54 firms **did not meet required standards.**
- Earlier, **World Health Organisation had raised concerns** over **substandard quality of Cough syrups exported** from India which were allegedly responsible for children's death in Gambia, Uzbekistan etc.
  - From 1st June 2023, **Director General of Foreign Trade** has made it compulsory to **test samples and obtain Certificate of Analysis** from designated laboratories for export of Cough syrups.
- **Drug regulation in India**
  - It is based on **Drugs and Cosmetics Act (DC Act), 1940** and **Drugs and Cosmetics Rules, 1945.**
  - **DC Act 1940 created CDSCO** under **Ministry of Health and Family Welfare** to prescribe standards for ensuring **safety, efficacy and quality** of **drugs, cosmetics**, diagnostics and devices in India.
    - **Drug controller general of India (head of CDSCO)** approves licences for specified categories of drugs such as blood and blood products, Vaccine etc.
- **Challenges in effective drug regulation**
  - **Absence of centralised drugs database:** For effective surveillance of Pharma companies.
  - **Multiplicity of regulators:** Nearly 36 regional regulators for drugs.
  - **Less emphasis on Good Manufacturing Practice Standards (GMPS):** Only 2,000 of 10,500 manufacturing units in India have compliance to WHO-GMPS.

Special Economic Zones (SEZ) (Fifth Amendment) Rules, 2023 notified by the Ministry of Commerce

- The Ministry has exercised powers conferred by section 55 of the **Special Economic Zones Act, 2005.**
- According to the amendment, the Board of Approval may **permit the demarcation of a portion** of an Information Technology Enabled Services Special Economic Zone **as a non-processing area**
  - The processing area in an SEZ is **for manufacture of goods or rendering of services.** The non-processing area is for **supporting infrastructure.**
- The **repayment of tax benefits already incurred** is to be calculated in proportion of the built-up non-processing area to the total built-up processing area.
- **Significance of the move:**
  - **Increases flexibility** in carrying out business in SEZs
  - **Protect the interest** of both developers as well as occupiers of SEZ
  - The freed-up space will lead to **better utilization** for a diversified set of occupiers
  - Will help to **diversify the tenant base** in SEZs.
- **What are SEZs?**
  - The SEZ is a specifically **delineated duty-free enclave, deemed to be foreign territory** for trade operations and duties and tariffs.
  - **Any private/public/joint sector or State Government** or its agencies can set up SEZ.
  - SEZs provide several advantages, including **tax benefits, duty-free imports, state-of-the-art** infrastructure, etc.

Significance of SEZ:

- Boosts Foreign direct investment in Goods and Services
- Increases the share in export and growth in manufacturing and service sector
- Increases employment.

Also in News

Mera Gaon Meri Dharohar (MGMD) Project

- Launched by the Ministry of Culture (MoC) **to document and map the cultural diversity inherent in villages across the country.**
- Mapping is done under the **National Mission on Cultural Mapping (NMCM),** in coordination with the **Indira Gandhi National Centre for the Arts (IGNCA).**
- MGMD seeks to **compile comprehensive information detailing the life, history, and ethos of Indian villages.**
- **NMCM:** Launched to develop a comprehensive database of artists, art forms, and cultural resources gathered from organizations, Ministries, and States.

Mycoplasma pneumonia

- Pneumonia cases in AIIMS Delhi have no link to recent surge in respiratory infections in children in China.
- Mycoplasma pneumoniae bacteria **commonly cause mild infections of respiratory system (throat, lungs, windpipe).**
  - It is one of **smallest self-replicating organism,** has a **highly stable genome, lacks cell wall** and **grows slowly.**
  - It is a **common bacterial cause of community acquired pneumonia.**
  - It **spreads** by **coughing or sneezing.**

Meftal

- The **Indian Pharmacopoeia Commission (IPC)** has issued a drug safety alert regarding **Adverse Drug Reactions (ADR)** associated with the painkiller Meftal.
- Meftal **contains mefenamic acid** and is commonly used for **menstrual cramps and rheumatoid arthritis.**
- It can trigger adverse reactions like **DRESS syndrome.**
  - Drug rash with eosinophilia and systemic symptoms(DRESS) syndrome is a **severe idiosyncratic response to a medication, marked by a protracted onset period.**
- IPC is an Autonomous Institution of the Ministry of Health and Family Welfare to **set standards of drugs.**

Urban flood mitigation project

- Prime Minister has approved the **urban flood mitigation project** under National Disaster Mitigation Fund (NDMF),
  - It is for '**Integrated Urban Flood Management (IUFM)** activities for Chennai Basin Project'.
  - This mitigation project will **help make Chennai flood-resilient.**
  - This is the **first in a series of urban flood mitigation efforts** and will help develop a broader framework for urban flood management".
- IUFM is a holistic approach that stresses on the interrelationship between **socioeconomic development, environmental sustainability, and flood-risk management.**

Article 99 of U.N. Charter

- **U.N. Secretary-General invoked Article 99 of UN Charter** to warn UN Security Council of impending Humanitarian crisis in Gaza.
- **Article 99** states that the **Secretary-General may bring to the attention of Security Council any matter** which in his opinion may **threaten the maintenance of international peace and security.**
  - ⊙ Article 99 has been **invoked on only four occasions in the past.**
- UN Charter is **founding document of United Nations**, signed in **1945 in San Francisco.**
  - ⊙ It **codifies major principles of international relations** like sovereign equality of States etc.

India's Logistics Efficiency

- Department for Promotion of Industry and Internal Trade held a meeting with the World Bank to showcase initiatives for logistics.
- **Significant Initiatives:**
  - ⊙ **Land Port Management System (LPMS)** to digitise operations at the Integrated check posts (ICPs).
  - ⊙ **National Logistics Portal, Marine**, as a maritime single window platform for complete end-to-end logistics solutions.
  - ⊙ **FASTag-based** electronic toll collection.
  - ⊙ **e-Air WayBill (e-AWB)** and **e-Cargo Security Declaration** to facilitate end-to-end paperless air cargo transportation.
  - ⊙ **35 multi-modal logistics parks (MMLPs)** planned by the Ministry of Road and Transport.

Cyber Insurance

- Number of Cyber Insurance (CI) policies sold in 2023 are 35-40 percent higher than 2022.
- Cyber Insurance is **designed to guard businesses from potential effects of cyber –attacks.**
  - ⊙ It is designed to **cover fees, expenses and legal costs associated with cyber breaches that occur after an organisation has been hacked.**
- In India, CI covers **Malware intrusion; Financial loss due to unauthorized** and **fraudulent use** of bank account, credit card and mobile wallets; **Legal expenses arising** out of any covered risk; **etc.**
  - ⊙ It **does not cover** attacks due to **accessing restricted sites, Crypto currency transactions**, etc.

Direct Ice mapping

- Astronomers have created a two-dimensional ice inventory of a **planet-forming disk** of dust and gas that surrounds a young star **HH 48 NE.**
- They used the **James Webb Space Telescope.**
- This is the **first time a direct ice map** of a protoplanetary disc around a young star **was captured.**
- The **starlight collides** with many molecules of the disk and **creates absorption spectra** which can be used to identify its composition.
- The direct mapping of ice in a planet-forming disk **provides important input to understand the formation of our Earth** and other planets.

Places in news — Seychelles (Capital: Victoria)

- Seychelles declares state of emergency after explosion amid flooding.
- **Political features**
  - ⊙ Island republic in **western Indian Ocean,** comprising about 115 islands.
  - ⊙ **Major islands** of Seychelles are located **east of Kenya** and **northeast of Madagascar.**
- **Geographical features**
  - ⊙ **Highest point:** Morne Seychellois
  - ⊙ Consists of both **coral and rocky islands** with **narrow coasts**.
  - ⊙ **Climate:** Wet Tropical.
  - ⊙ Drainage system consists of only small streams and lake.

> **Clarification:** In News Today Dated **7th December 2023**, under the article **'Two bills on Jammu and Kashmir (J&K) passed in Lok Sabha',** it was mentioned that 'Bill increases the total number of seats to 90 from 83'. The complete Information is that the 'Bill increases the **total number of seats to 114 from 107** (24 seats of the Assembly will remain vacant until the occupation in PoK ceases'. This makes the effective strength of Assembly to 90).

AHMEDABAD BHOPAL CHANDIGARH DELHI JAIPUR JODHPUR GUWAHATI HYDERABAD LUCKNOW PRAYAGRAJ PUNE RANCHI SIKAR