Prelim Bits 11-09-2023 | UPSC Daily Current Affairs

China's Belt and Road Initiative (BRI)

Italy was planning to leave China's Belt and Road Initiative (BRI).

- **Italy's Reason for leaving BRI -** Italy believes that BRI is more beneficial for China and wants to maintain a balanced international relationships with U.S. and China.

Belt and Road Initiative (BRI)

- Also known as the ***New Silk Road***, BRI is the infrastructure and connectivity project *both by land and sea.*
- The two-pronged plan includes
  - The overland Silk Road Economic Belt
  - Maritime Silk Road
- The two were collectively referred as the *One Belt, One Road (OBOR) initiative* but eventually became the Belt and Road Initiative (BRI).
- **Year** - Announced by Chinese President Xi Jinping in *2013.*
- **Aim -** To connect China with Europe by land and rail, and to Africa and Asia by sea.
- The project has expanded to Africa, Oceania, and Latin America, significantly broadening China's economic and political influence.
- Under the initiative, China has built or financed bridges, roads, ports, and even laid down digital connectivity networks in partner countries.
- **Membership** - Currently 147 countries
- BRI will eventually encompass 100 countries representing 70% of the world's population, 55% of GDP and 24% of global trade.

Italy is the only G7 country to sign up for the BRI.

- **Other alternatives** - European Union and United States have their own development schemes known as "*Globally Connected Europe*" and "*Build Back Better".*
- **India's Stand -** India does not support the BRI as it passes through Indian territory illegally held by Pakistan.

Related links- China-Pakistan Economic Corridor (CPEC)

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Earthquake in Morocco

An earthquake of magnitude 6.8 struck Morocco claiming the death toll at over 600.

- **Earthquake –** Earthquakes are caused by a sudden release of stress along faults in the earth's crust.
- **Reason for Moroccan earthquake -** The US Geological Survey attributed that the reason might be *oblique-reverse faulting* at shallow depth within the Moroccan High Atlas Mountain range.

> **Oblique-reverse faulting**
> • A fault that shows the characteristics of both dip-slip and strike-slip motion caused by a combination of shearing and compressional forces.
> • It forms when hanging wall slides over the footwall due to compressional forces bringing the sides together.

- **Shallow quake** - The epicentre was roughly *11 to 18.5 km* below the Earth's surface, thus being a fairly *shallow quake*.
- Shallow quakes are generally more dangerous as they carry more energy than when they emerge to the surface, when compared to quakes that occur deeper underneath the surface.
- **Rare in North Africa –** Earthquakes are not very common in North Africa, with seismicity rates comparatively low along the northern margin of the African continent.

Morocco

- **Location** - North Africa.
- **Bordered by -** Western Sahara to the south and Algeria to the east.
- **Coastlines -** Atlantic Ocean to the west and the Mediterranean Sea to the north.
- **Mountains-** The Atlas Mountains and Rif Mountains.
- Jebel Toubkal is the highest point of Morocco and is also the highest peak of the Atlas Mountains.
- **Water sources** - ***Moulouya River***, whose source is located in the Atlas Mountains, and flows into the Mediterranean Sea.
- **Ethnic groups** - Morocco is composed mainly of *Arabs and Imazighen (Berber)*
- Morocco possess *two-thirds of the world's reserves of phosphates*.

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2. Live Mint | Earthquake in Morocco
3. World Atlas | Maps Of Morocco

Space Launch System (SLS) & Starship

NASA and Elon Musk's SpaceX suffered setbacks in SLS (Unaffordable) and Starship (Explosive) programs recently.

- The SLS rocket and Starship play crucial roles in NASA's Artemis program which aims to put humanity back on the Moon.

Space Launch System (SLS)

- **Agency –** NASA, U.S.
- It is a super heavy-lift rocket that provides the foundation for human exploration beyond Earth orbit.
- **Stages –** Core stage, boosters with 4 RS-25 engines.
- **Fuel -** Liquid Hydrogen (LH2) & Liquid Oxygen (LO2).
- SLS will be the only rocket with the capability to carry Orion and astronauts, as well as large cargo to the moon during a single mission.
- It is the most powerful rocket NASA has ever launched.
- SLS was successfully launched as part of the Artemis I Mission in 2022.

Starship

- **Agency –** SpaceX, U.S.
- Starship spacecraft and Super Heavy rocket is collectively referred to as Starship.
- It represent a *fully reusable* transportation system designed to carry both crew and cargo to Earth orbit, the Moon, Mars and beyond.
- Starship will be the *world's most powerful launch vehicle* ever developed, capable of carrying up to 150 metric tonnes fully reusable and 250 metric tonnes expendable.
- **Payload capacity -** 100 – 150 tonnes (fully reusable).
- **Starship spacecraft -** Starship is the fully reusable spacecraft and 2nd stage of the Starship system.
- **Super Heavy** – It is the first stage, or booster, of the Starship launch system and is fully reusable and will re-enter Earth's atmosphere.
- **Raptor engine** – It is a reusable methane-oxygen staged-combustion engine that powers the Starship system.

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1. The Indian Express | NASA's SLS & SpaceX's Starship
2. NASA | SLS
3. SpaceX | Starship

Nalanda University

The Backdrop of Nalanda Mahavira welcomes delegates at the G20 Summit for the President's dinner.

- Nalanda was an acclaimed ***Mahavihara***, a large Buddhist monastery in the ancient kingdom of Magadha (modern-day Bihar) in India.
- It is an ancient centre of higher learning, founded in the ***5th century CE***.
- The Nalanda University is the *world's first residential university* believed to have 2,000 teachers and 10,000 students.
- Scholars gathered here to learn medicine, logic, mathematics and Buddhist principles.
- **Patrons -** Nalanda flourished under the patronage of the Gupta Empire in the 5th and 6th centuries (especially Krishna Gupta) and later under Harsha, the emperor of Kannauj.
- Nalanda University reached the peak of its fame and glory during the reign of the ***Pala dynasty*** in the 8th and 9th centuries CE.
- One of the star teachers who taught at Nalanda University was ***Aryabhata***, the astronomer and mathematician who gave the world the concept of Zero back in the 5th century CE.
- **Famous Student –** Xuanxang, Harshavardhana, Nagarjuna, Vasubandhu, etc.
- **Library of Nalanda -** The library of Nalanda, known as Dharma Gunj (Mountain of Truth) or Dharmagañja (Treasury of Truth).
- **Attacks on Nalanda -** Nalanda University was destroyed 3 times by different invaders.
    1. By Huns under the reign of Mihirakula.
    2. By 7th century by the Goudas - The Buddhist king Harshavardhana then restored the university.
    3. By the Muslim army led by the Turkish leader Bakhtiyar Khilji during the year 119
- **Current revival** - Today, the ruins of Nalanda University are a ***UNESCO World Heritage site***.
- The University is being supported by all the Member States of the ***East Asia Summit*** and Intergovernmental Memorandums of Understanding to that effect have been signed by 17 countries.

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Vidya Samiksha Kendras

The Ministry of Education is pushing States to open Vidya Samiksha Kendras (VSKs) under the National Digital Education Architecture (NDEAR) recently.

- Vidya Samiksha Kendra (VSK) is a data repository which will have data from all schemes run by the Ministry of Education (MoE).
- VSK control rooms will collect data to track key performance indicators as well as analyse data collated from govt schemes 'using AI & machine-learning'.
- The operations of VSK centres are managed by an open-source platform run on ***C-Qube software***.
- **Advisory role –** By EkStep Foundation (non-profit organisation co-founded by former

Chairman of Unique Identification Authority of India, Nandan Nilekani)

- **Funding -** The Centre has allocated funds ranging from Rs.2 to Rs.5 crore to each State for adopting and establishing VSK.
- **Features** – The repository will include regularly updated data from
    - PM-POSHAN mid-day meal programmes;
    - Teacher training data from National Initiative for School Heads' and Teachers' Holistic Advancement portal;
    - Textbook content from Digital Infrastructure for Knowledge Sharing (DIKSHA);
    - School dropout and attendance-related data on Unified District Information System for Education (UDISE+);
    - Students' learning outcomes from National Achievement Survey;
    - Performance Grading Index which evaluates school education system at the State/U.T. level.
- **Function**- Multiple platforms at Centre, State and district levels can communicate with each other using requests and responses to seamlessly integrate data at all levels on the platforms.
- This is in line with the ***National Education Policy, 2020*** talking about developing operational standards for making data open source.

The 1st VSK was inaugurated in June 2021 in Gujarat's Gandhinagar.

Reference

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