# Prelim Bits 05-02-2022 | UPSC Daily Current Affairs

Nord Stream Pipeline

The Nord Stream pipeline is back in the news following the renewed tensions between the West and Russia over Ukraine.

- Owned by the Russian energy giant, Gazprom, Nord Stream Pipeline is the longest subsea pipeline.
- It is an export gas pipeline that runs under the Baltic Sea carrying gas from Russia to Europe.
- The gas for Nord Steam comes mainly from the Bovanenkovo oil and gas condensate deposit in Western Siberia.
- Nord Stream consists of two pipelines, which have two lines each.
  - Nord Stream 1 which runs from Vyborg in Leningrad (Russia) to Lubmin near Greifswald, Germany was completed in 2011.
  - Nord Stream 2 which runs from Ust-Luga in Leningrad to Lubmin was completed in 2021.
- Twin pipelines of the Nordstream together can transport a combined total of 110 billion cubic metres (bcm) of gas a year to Europe for at least 50 years.
- The pipeline's significance comes from the fact that it bypasses transit countries, making it highly reliable for European customers.
- The Nord Stream crosses the Exclusive Economic Zones (EEZs) of several countries including Russia, Finland, Sweden, Denmark and Germany, and the territorial waters of Russia, Denmark, and Germany.
- In Germany, the pipeline connects to the OPAL (Baltic Sea Pipeline) and NEL (North European Pipeline) which further connects to the European grid.
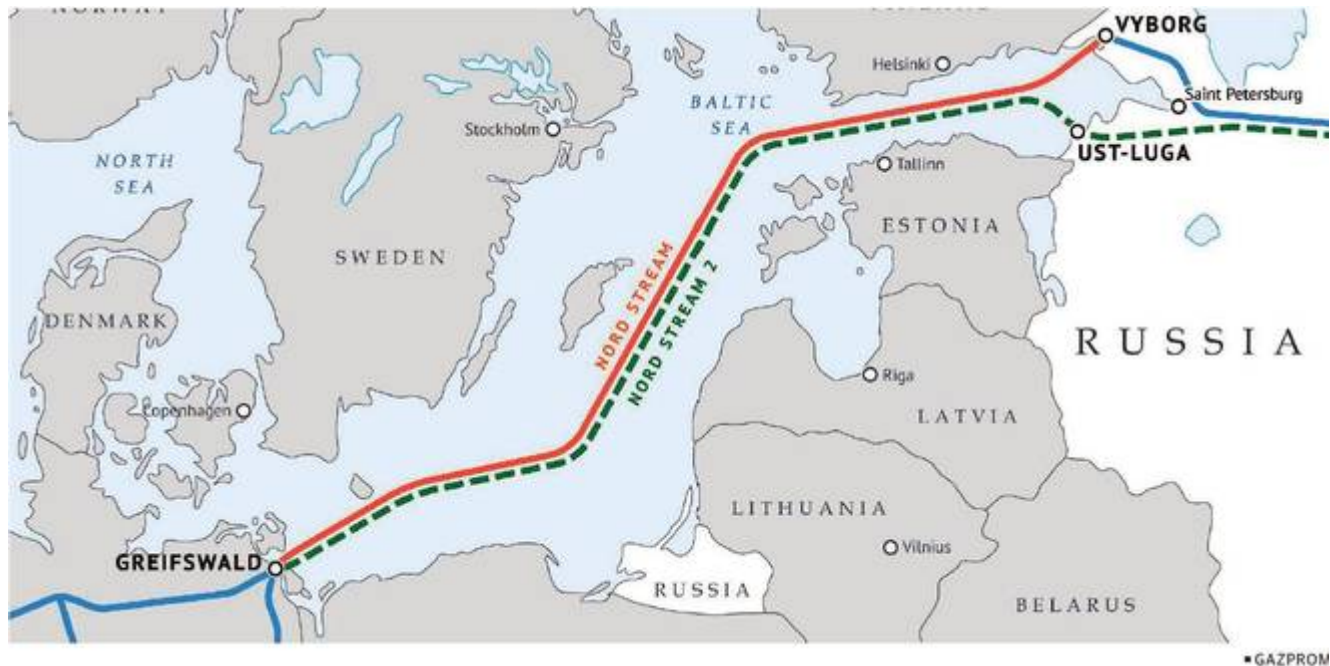
Reference

Pradhan Mantri Kisan Mandhan Yojana

Union Minister for Agriculture and Farmers Welfare said that a total of 21,86,918 farmers are enrolled in the Pradhan Mantri Kisan Mandhan Yojana.

- Pradhan Mantri Kisan Maan Dhan Yojna (PMKMY) is a voluntary and contributory pension scheme for the Small & Marginal Farmers (SMFs).
- It is being implemented in order to provide old age protection and social security net to the SMFs by way of pension.
- Under this scheme, provision has been made for payment of a minimum fixed pension of Rs. 3,000/- to the eligible SMFs, subject to certain exclusion clauses, on attaining the age of 60 years.
- **Eligibility** - The beneficiary should be a Small and Marginal Farmer.
- They must have cultivable landholding up to 2 hectares.
- The entry age of the scheme is 18 to 40 years.
- The beneficiary should not be SMFs covered under any other statuary social security schemes such as NPS, Employees' State Insurance Corporation scheme, Employees' Fund Organization Scheme etc.
- They should not have opted for Pradhan Mantri Shram Yogi Maandhan Yojana and National Pension Scheme for Traders and Self Employed Persons administered by the Ministry of Labour & Employment.
- Should not be from categories of beneficiaries of higher economic status.
- **Contribution** - The eligible beneficiary can opt to become member of the Scheme by subscribing to a Pension Fund.
- The beneficiary is required to contribute Rs 100/ - per month at median entry age of 29 years.
- The Central Government also contributes to the Pension Fund in equal amount, managed by the Life Insurance Corporation, which is also responsible for pension pay out.
- **Status** - As the Scheme has an entry age of 18 to 40 years, no beneficiary has yet attained the

age of 60 to be eligible for payment.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1795456
2. https://maandhan.in/scheme/pmkmy

Pandit Bhimsen Joshi

The Prime Minister has remembered Pandit Bhimsen Joshi on his 100th birth anniversary.

- Born in 1922 at Ron, Gadag district, Karnataka, Bhimsen Joshi was the eldest among 16 children born to Gururaj Joshi and Godavaribai.
- He left home at a young age in pursuit of music and a suitable guru.
- He found his guru Pandit Sawai Gandharva at Kundagol, Dharwad district.
- There he met Gangubai Hangal, another disciple of Sawai Gandharva, whom he fondly called 'akka' (elder sister).
- Gangubai went on to become a doyenne of Hindustani classical music and settled down in Hubballi.
- After the training, the 'Ganda Bandhan' (ritual that creates a bond between guru & disciple) took place in Dharwad, where Bhimsen Joshi chose to settle down.
- When All India Radio opened a station in Dharwad in 1950, the inaugural song Vande Mataram was sung by Pandit Bhimsen Joshi, Gangubai Hangal, Mallikarjun Mansur and Basavaraj Rajguru.
- He organised the Sawai Gandharva Music festival in Pune.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1795594
2. https://www.thehindu.com/news/national/karnataka/pandit-bhimsen-joshi-from-a-small-town-boy-to-bharat-ratna/article38370340.ece

Saint Ramanujacharya

Prime Minister will inaugurate the Statue of Equality, a gigantic statue of Ramanujacharya, on the outskirts of Hyderabad.

- Born in 1017 in Sriperumbudur in Tamil Nadu, Ramanujacharya is revered as a Vedic philosopher and social reformer.
- Ramanuja travelled across India, advocating equality and social justice.
- He revived the Bhakti movement, and his preachings inspired other Bhakti schools of thought.
- He is considered to be the inspiration for poets like Annamacharya, Bhakt Ramdas, Thyagaraja, Kabir, and Meerabai.
- From the time he was a young budding philosopher, Ramanuja appealed for the protection of nature and its resources like air, water, and soil.
- He went on to write nine scriptures known as the **navaratnas**, and composed numerous commentaries on Vedic scriptures.
- Ramanuja is credited with establishing the correct procedures for rituals performed in temples throughout India, the most famous being Tirumala and Srirangam.
- **Reason to build the Statue of Equality** - Ramanuja was an advocate of social equality among all sections of people centuries ago.

- He encouraged temples to open their doors to everyone irrespective of caste or position in society at a time when people of many castes were forbidden from entering them.
- He took education to those who were deprived of it.
- His greatest contribution is the propagation of the concept of "vasudhaiva kutumbakam", which translates as all the universe is one family.
- He travelled across India for several decades, propagating his ideas of social equality and universal brotherhood from temple podiums.
- He embraced the socially marginalised and condemned, and asked royal courts to treat them as equals.
- He spoke of universal salvation through devotion to God, compassion, humility, equality, and mutual respect, which is known as **Sri Vaishnavam Sampradaya**.
- The Vaishnava seer behind the Statue of Equality, Ramanujacharya's social philosophy was designed to cross the boundaries of the caste system and to embrace the whole of humanity.
- Ramanujacharya liberated millions from social, cultural, gender, educational, and economic discrimination with the foundational conviction that every human is equal regardless of nationality, gender, race, caste, or creed.

Reference

https://indianexpress.com/article/explained/ramanujacharya-statue-of-equality-explained-7754236/

Moons Make Planets Habitable

A new study has examined the moon formations and concluded that only certain types of planets can form moons that are large in respect to their host planets.

- Earth's moon is vitally important in making Earth the planet we know today - The moon controls the length of the day and ocean tides, which affect the biological cycles of life forms on our planet.
- The moon also contributes to Earth's climate by stabilizing Earth's spin axis, offering an ideal environment for life to develop and evolve.
- Because the moon is so important to life on Earth, scientists conjecture that a moon may be a potentially beneficial feature in harboring life on other planets.
- Most planets have moons, but Earth's moon is distinct in that it is large compared to the size of Earth.
- The moon's radius is larger than a quarter of Earth's radius, a much larger ratio than most moons to their planets.
- By understanding moon formations, we have a better constraint on what to look for when searching for Earth-like planets.
- It is expected that the exomoons [moons orbiting planets outside our solar system] should be everywhere, but so far we haven't confirmed any.
- These constraints will be helpful for future observations.

Origin of Earth's Moon

- Many scientists have historically believed Earth's large moon was generated by a collision between proto-Earth and a large, Mars-sized impactor, approximately 4.5 billion years ago.
- [Proto-Earth is the Earth at its early stages of development.]
- The collision resulted in the formation of a partially vaporized disk around Earth, which eventually formed into the moon.
- In order to find out whether other planets can form similarly large moons, the study conducted impact computer simulations, with a number of hypothetical Earth-like rocky planets and icy

planets.

- They hoped to identify whether the simulated impacts would result in partially vaporized disks, like the disk that formed Earth's moon.
- The researchers found that rocky planets larger than six times the mass of Earth (6M) and icy planets larger than one Earth mass (1M) produce fully -- rather than partially -- vaporized disks, and these fully-vaporized disks are not capable of forming fractionally large moons.
- We found that if the planet is too massive, these impacts produce completely vapor disks because impacts between massive planets are generally more energetic than those between small planets.
- After an impact that results in a vaporized disk, over time, the disk cools and liquid moonlets -- a moon's building blocks -- emerge.
- In a fully-vaporized disk, the growing moonlets in the disk experience strong gas drag from vapor, falling onto the planet very quickly.
- In contrast, if the disk is only partially vaporized, moonlets do not feel such strong gas drag.
- As a result, we conclude that a completely vapor disk is not capable of forming fractionally large moons.
- Planetary masses need to be smaller than those thresholds we identified in order to produce such moons.

Reference

https://www.sciencedaily.com/releases/2022/02/220201144027.htm