UPSC Daily Current Affairs | Prelim Bits 29-03-2021

Suez Canal Blocked

- Due to the blockage of the Suez Canal, the $200 billion of India's trade flows with Europe, North America and South America is at risk.
- So, the Department of Commerce has worked out an action plan to cope with the crisis, including possibly re-routing shipments through the Cape of Good Hope (Re-routing may take 15 additional days' time.)
- To know more about the issue, click here.

Suez Canal

- Opened in 1869, it is an artificial sea-level waterway in Egypt.
- It connects the Mediterranean Sea to the Red Sea through the Isthmus of Suez in Egypt, and divides Africa and Asia.
- It offers watercraft a more direct route between the North Atlantic and northern Indian oceans, avoiding the South Atlantic and Indian oceans.
- It extends from the northern terminus of Port Said to the southern terminus of Port Tewfik at the city of Suez.
- It provides the shortest maritime route between Europe and the lands lying around the Indian and western Pacific oceans.

Cape of Good Hope

- The Cape of Good Hope is a rocky headland on the Atlantic coast of the Cape Peninsula in South Africa.
- There is a misconception that the Cape of Good Hope is the southern-most point of Africa. But the Cape Agulhas is the southern-most point.
- The currents of the Atlantic and Indian Oceans meet at the point where the warm-water Agulhas current meets the cold-water Benguela current and turns back on itself.
- That oceanic meeting point fluctuates between Cape Agulhas and Cape Point (about 1.2 kms east of the Cape of Good Hope).

New Red Algae Species

- Two new species of red seaweed - Hypnea indica and Hypnea bullata - have been discovered by marine biologists from Central University of Punjab (The genus Hypnea includes red seaweeds.)

- Hypnea indica - Discovered from Kanyakumari in Tamil Nadu, and Somnath Pathan and Sivrajpur in Gujarat.
- Hypnea bullata - Discovered from Kanyakumari and Diu island of Daman and Diu.
- Another species, Hypnea nidifica, has been found for the first time in Indian coasts.
- Including the two new species, there are 63 species in the genus Hypnea globally.
- The genus Hypnea consists of calcareous, erect, branched red seaweeds.
- They grow in the intertidal regions of the coast, namely the area that is submerged during the high tide and exposed during low tides.
- **Uses** - Species of Hypnea contain the biomolecule carrageenan, which is widely used in the food industry.
- **Threat** - Algae with calcareous mineral deposits are prone for the damage from ocean acidification, an aftermath of climate change.

Whale Shark

- A whale shark was rescued by fishers in Odisha coast, which is very important for marine megafauna like turtles, whales and sharks.
- The dotted whale shark is the largest fish in the ocean and often called 'Gentle Giant' in fishing parlance.
- It is a 'filter feeder shark' which means it does not eat meat like other sharks. They filter sea water and feed on tiny planktons.
- The largest whale shark aggregation in India is along the Gujarat coats. On the Bay of Bengal coast, the only aggregation is in Andhra Pradesh.
- Whale sharks are found in all the tropical oceans of the world.
- They are a protected species under the,
    1. Indian Wild Life (Protection) Act, 1972 - Schedule I
    2. International Union for Conservation of Nature's (IUCN) Red List - Endangered
    3. Convention on International Trade in Endangered Species (CITES) - Appendix II
- **Threat** - Accidental entanglement in fishing nets, Oil and gas drilling, shipping lanes, etc.,

Most Distant Quasar

- The most distant 'radio-loud' quasar was discovered with the help of European Southern Observatory's Very Large Telescope (ESO's VLT).
- [VLT, which is the world's most advanced optical telescope, is located at Paranal Observatory in the Atacama Desert.]
- Named P172+18, the quasar took 13 billion years for the quasar's light to

reach earth. It emitted wavelengths with a gravitational redshift of 6.8.
- Only 3 other 'radio-loud' sources with redshift greater than 6 have been discovered so far and the most distant one had a redshift of 6.18.
- [Redshift of the radio wavelength occurs when light particles (photons) climb out of a gravitational well like a black hole and the light's wavelength gets drawn out.
- Higher the redshift, the farther away is the source.]
- P172+18 quasar appears to the scientists as it was when the universe was just around 780 million years old.
- The glowing disc around a blackhole 300 million times more massive than our Sun, thus, holds clues about the ancient star systems and astronomical bodies.

Quasars

- Quasars (quasi-stellar radio source) are very luminous objects in faraway galaxies that emit jets at radio frequencies.
- They are found **only in galaxies that have super massive blackholes** which power these bright discs.
- Most active galaxies have a supermassive black hole at the centre which sucks in surrounding objects.
- Quasars are formed by the energy emitted by materials spiralling around a blackhole right before being sucked into it. They are of two types,
    1. **Radio-loud quasars** (10% of quasar population) - Have powerful jets that are strong sources of radio-wavelength emission
    2. **Radio-quiet quasars** (about 90% of quasar population) - Lack powerful jets, and have relatively weaker radio emission than the radio-loud population.

Social Security Schemes

- As per the Periodic Labour Force Survey (PLFS) carried out by the National Sample Survey Organisation in 2017-18, the total employment in the country was around 47 crores. Out of this,
    1. Around 9 crores are engaged in the organized sector
    2. Around 38 crores are engaged in the unorganized sector.
- The categories of the workers include,
    1. Establishments with 10 or more workers;
    2. Establishments with 20 or more workers;
    3. Workers engaged in unorganised sector
- **ESI Act, 1948** is Social Security legislation applicable to all factories & notified establishments employing 10 or more persons, which are located in ESI notified areas. It does not apply to the unorganised sector as such.

- Employees earning wages up to Rs 21,000 per month (Rs 25,000/- in the case of persons with disability) are coverable under ESI Scheme.
- **Employees' Provident Fund and Miscellaneous Provisions Act, 1952** is applicable to the workers employed in organised sector establishments with 20 or more workers.
- The benefits of the EPF Act, 1952 is also extended through,
    1. The Employees' Provident Funds Scheme, 1952;
    2. The Employees' Pension Scheme, 1995;
    3. The Employees' Deposit Linked Insurance Scheme, 1976.
- **Unorganised Workers' Social Security Act, 2008** empowers the Central Government to provide Social Security benefits to unorganised sector workers by formulating suitable welfare schemes on matters like,
    1. Life and disability cover - PM Jeevan Jyoti Yojana (PMJJBY) and Pradhan Mantri Surksha Bima Yojana (PMSBY),
    2. Health and maternity benefits - Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY),
    3. Old age protection - PM Shram Yogi Maan-DhanYojana (PM-SYM) and National Pension Scheme for Traders, Shopkeeper and Self-Employed Persons (NPS- Traders)
    4. Any other benefit as may be determined by the Central Government.
- Under the Unorganised Workers' Social Security Act, 2008, the State Governments can formulate suitable welfare schemes on the matters like housing, PFs, educational schemes, skill upgradation, old age homes etc.

Purple Revolution

- Council of Scientific and Industrial Research-Indian Institute of Integrative Medicine, Jammu announced phase 2 of purple revolution under Aroma Mission, after the success of the phase 1 in Doda, Jammu.
- Under the purple revolution, the farmers in Doda district had their incomes quadrupled after shifting from maize to lavender cultivation.
- First-time farmers were given free lavender saplings and those who have cultivated lavender before were charged Rs. 5-6 per sapling.
- The farmers will get help from IIIM-Jammu to sell their produce.
- Farmers could reach the four distillation units set up by CSIR-IIIM Jammu in Doda for extraction of lavender oil.
- At present, large-scale lavender cultivation is limited to J&K but governments in Himachal Pradesh, Arunahal Pradesh and Uttarakhand are also encouraging their farmers to take up lavender.

Purple Economy

- Lavender oil sells for at least Rs 10,000 per litre
- Lavender water can be separated from lavender oil. It is used to make incense sticks.
- Hydrosol is formed after distillation from the flowers. It is used to make soaps and room fresheners.

Aroma Mission

- In 2016, the Centre launched Aroma Mission to boost cultivation of plants for essential oils which have aromatic medicinal properties.
- The mission supports domestic aromatic crop based agro economy to move from imported aromatic oils to homegrown varieties.
- Nodal laboratory - CSIR-Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP), Lucknow.
- Participating laboratories - CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur; CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu etc.

Source: PIB, The Hindu, Down To Earth

SHANKAR IAS PARLIAMENT
Information is Empowering