

PRAYAS4IAS

AN INITIATIVE BY THE PRAYAS INDIA

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Prelims

NATIONAL

FSSAI caps trans fats in food products

(Source: [The Hindu](#))

Context: The Food Safety and Standards Authority of India (FSSAI) has amended its rules to cap trans-fatty acids (TFAs) in food products, just weeks after it tightened the norms for oils and fats.

Details:

- Food products in which edible oils and fats are used as an ingredient shall not contain industrial trans-fatty acids more than 2% by mass of the total oils/fats present in the product, on and from 1st January, 2022.
- In December, the FSSAI had capped TFAs in oils and fats to 3% by 2021, and 2% by 2022 from the current levels of 5%.
- The 2% cap is considered to be elimination of trans-fatty acids, which will be achieved by 2022.

What are trans-fats?

- Trans-fatty acids are created in an industrial process that adds hydrogen to liquid vegetable oils to make them more solid, increase shelf life of food items and for use as an adulterant as they are cheap.
- They are present in baked, fried and processed foods as well as adulterated ghee, which becomes solid at room temperature.
- They are the most harmful form of fats as they clog arteries and cause hypertension, heart attacks and other cardiovascular diseases.
- The WHO has called for the elimination of industrially produced trans-fatty acids from the global food supply by 2023.

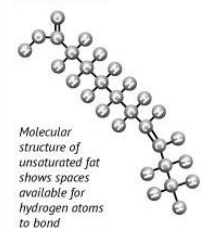
Different Kinds of Fat

Fatty acids, which are the building blocks of fat, are long chains of carbon and hydrogen atoms. Essential fatty acids are those needed by the human body that can only be obtained through food. Some fats are harmful, however.



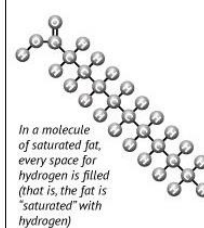
UNSATURATED FATS

The so-called "good" fats can be found in nuts, avocados and other vegetables. The molecular structure of unsaturated fat causes it to be lower in calories than other fats.



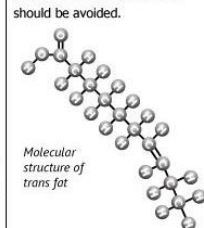
SATURATED FATS

These fats are found mostly in animal products. It is recommended that people reduce their consumption of saturated fats in order to stay healthy.



TRANS FATS

Trans fats are unsaturated (good) fats which have been partially saturated with hydrogen to extend their shelf life. Unfortunately, these trans fats are found to elevate "bad" cholesterol and should be avoided.



Ka-226T

(Source: [The Hindu](#))

Context: The total indigenous content of the Ka-226T utility helicopters, to be jointly manufactured locally by India and Russia with Transfer of Technology (ToT), is between 27%-33%

What is Ka-226T



- The Ka-226T is meant to replace the ageing and obsolete Cheetah and Chetak fleet of the Army and Air Force and the total technical life of these will start finishing from 2023 onwards.
- As per the Russian proposal, the localisation plan would be spread over four phases, beginning with 3.3% indigenisation for 35 helicopters, going up to 15% for next 25 helicopters, 35% for 30 helicopters in Phase 3 and eventually to 62.4% indigenisation in Phase 4 for the last 50 helicopters.
- The helicopters would be manufactured by India Russia Helicopters Limited (IRHL) — a joint venture between HAL and Russian Helicopters.
- In 2015, India and Russia had concluded an Inter-Governmental Agreement (IGA) for at least 200 Ka-226T twin engine utility helicopters estimated to cost over \$1 billion with 60 helicopters to be directly imported and remaining 140 manufactured locally. The first helicopter would be delivered within 36 months from the signing of the contract.

Ka-226T

| Light multi-purpose helicopter

The model incorporates modular design and can be easily adapted for different functionalities. Ka-226T is available in a number of modifications, e.g., passenger, cargo, medical or search-and-rescue helicopter.



Kurubas

(Source: The Hindu)

Context: In a show of strength to demand Scheduled Tribe (ST) status, members of the Kuruba community, including three Ministers in Karnataka Chief Minister B.S. Yediyurappa's Cabinet, took out a massive rally in the city.

About the Kurubas

- **Kuruba**, (also known as **Kuruba Gowda**, **Kuruma** and **Kurumbar**) is a Hindu caste native to the Indian state of Karnataka, Tamil Nadu, Andhra Pradesh and Telangana. They are the third-largest caste group in Karnataka. Traditionally, they were shepherds, militiamen from the hills, armed vassals, or postmen. They practiced sheep/goat and cattle pastoralism, in that they either herded exclusively sheep, or a mixed herd of sheep and goats, or cattle.
- The term *kuruba*, meaning *shepherd*, is derived from *kuri*, meaning *sheep*. Shepherding was traditionally their primary occupation and still is for many, who lead a nomadic lifestyle.

History

- Oral traditions of the Kurubas indicate their descent from Neolithic farming villages in South India which also kept cattle.
- Oral traditions indicate some of these original cattle-keeping agriculturalists branched off into new habitats and quickly came to rely on sheep pastoralism, absorbing Mesolithic hunter-gatherers. Rituals associated with hunting presumably came from the integration of these hunter-gatherers into the Neolithic pastoralists.
- These pastoralists later became almost totally separated from their villager antecedents and interacted with them only based on initial conflict and acculturation. For pastoralists such as the Kurubas, the horse became an important pack animal after the Iron Age and an animal for fighting.



- Nanjundaiah claimed the Kurubas were the descendants of the Pallavas. Groups of soldiers from the Kuruba community became important in the armies of Deccan powers in the Medieval era.
- It is believed that Kurubas are ethnically related to the Kuruvans of Sangam literature. This is also supported by the fact that Kuruvans worshiped Murukan and his Kuruvan wife, Valli whereas Kurubas worship Mailara/Mallanna, who represents Murukan, and his Kuruba wife, Kurubattayavva.
- Traditional sources claim that the Kurumas or Kurubas founded the Sangama dynasty, the founding dynasty of the Vijayanagara Empire. According to Ramchandra Chintaman Dhere, a scholar of the religious traditions of Maharashtra:
- The history of South India shows clearly that all the southern royal dynasties who arose from pastoralist, cowherd groups gained Kshatriya status by claiming to be Moon lineage Kshatriyas, by taking Yadu as their ancestor, and by continually keeping alive their pride in being 'Yadavas'. Many dynasties in South India, from the Pallavas to the Yadavarayas, were originally members of pastoralist, cowherd groups and belonged to Kuruba lineages.

Subdivisions

- They have three divisions, namely Unnikankan, Hattikankan and Hande. Those who subsist on the wool economy wear a *Unnikankan* (wool bracelet), while those in agriculture wear a *Hattikankan* (cotton bracelet). These bracelets are tied during the marriage ceremony.
- Hande Kurubas claims a higher position than the other two and prefers to be called Nayakas. They were an important part of the armies of Hyder Ali and Ankusagari Poligars. Nayakas were military leaders who often became Inamdars.
- The priestly class of Kurubas is called Oderu Kuruba. They don't eat meat and wear the lingam, and to that extent they resemble the Lingayats' Jangamas.
- In Maharashtra, they are a sub-caste of Dhangar community. Kurubas and Dhangars have the same religious ideas and practices. The Kannada speaking Dhangars of southern Maharashtra can easily be called Kurubas.
- They are divided into Unnikankan and Hattikankan Dhangars, which are subdivisions of Kurubas. Dhangars' priestly class is called Vadad, derived from Oderu, which is the priestly class of Kurubas. They differ from Kurubas only in name and language.

Culture

- Although the Kurubas are traditionally Saivites, they worship a variety of deities. Mailara, Mallanna, Mallikarjuna, Vitthal (in his original Shiva form) and Beerappa, who all are forms of Shiva, and Yellamma are some of the important gods of Kurubas.
- They consider Vitthal and Beerappa as brothers, however, Beerappa has traditionally been their exclusive deity. Other deities they worship include Batyappa, Irachikappa, Kallu Kambhadappa, Budalappa, Settippalleppa, Karakuappa and Lakshmi Devi. They worship all *gramadevatas* and sacrifice sheep and goats.
- Previously, the Kurubas celebrated *parashe* where the group of Kurubas throughout a region celebrated the festival of their gods. During this time *Goravas*, an order of saints dedicated to Mailari Devaru, are initiated.
- During the *parashe*, the idol of the temple where the *parashe* takes place is washed in a river, and decorated with *hoovu-vibhuti*. The worship is conducted by a Kuruba pujari and the Goravas sing songs dedicated to the deity.
- However, these celebrations were largely gone by the 1920s. The Kurubas also worship *Iragaru*, men who die unmarried, by building temples and setting up stones for them. They bury their dead.



Glacial Lake Outburst Floods

(Source: [Indian Express](#))

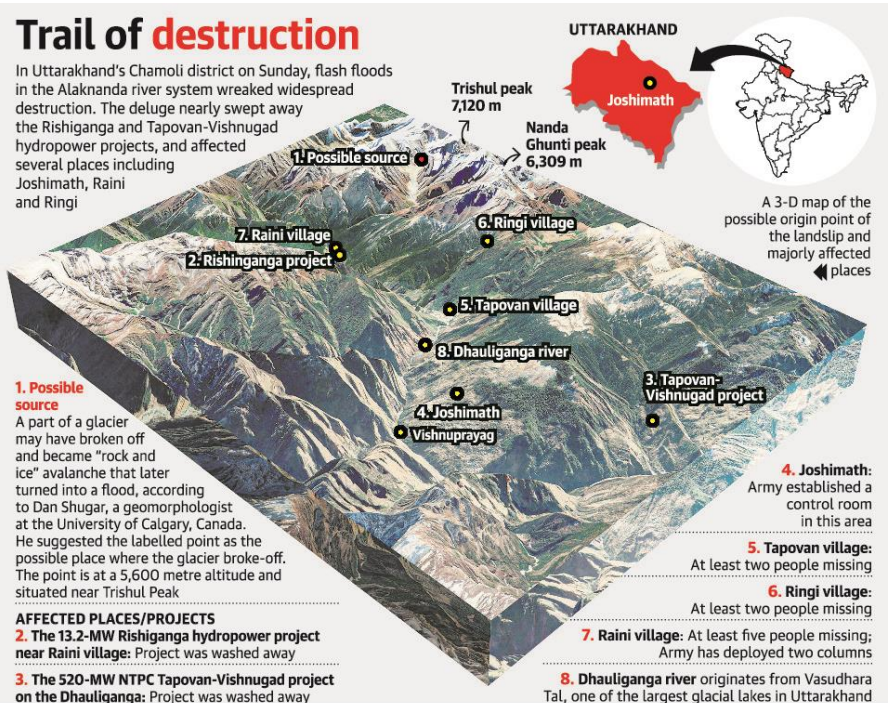
Context: A glacier break is suspected to have caused the flash floods in Uttarakhand's Chamoli recently. Last October, the National Disaster Management Authority (NDMA), which is headed by PM Narendra Modi, had issued detailed guidelines on how to reduce and deal with disasters caused by what is scientifically called **Glacial Lake Outburst Floods (GLOFs)**.

What are GLOFs and how vulnerable are the Himalayas?

- When glaciers melt, the water in glacial lakes accumulates behind loose, natural “glacial/moraine dams” made of ice, sand, pebbles and ice residue. A GLOF refers to the flooding that occurs when the water dammed by a glacier or a moraine is released suddenly.
- Unlike earthen dams, the weak structure of the moraine dam leads to the abrupt failure of the dam on top of the glacial lake, which holds large volume of water. A failure of the dam has the potential of releasing millions of cubic metres of water in a short period, causing catastrophic flooding downstream. Peak flows as high as 15,000 cubic metre per second have been recorded in such events.
- According to NDMA, glacial retreat due to climate change occurring in most parts of the Hindu Kush Himalaya has given rise to the formation of numerous new glacial lakes, which are the major cause of GLOFs.
- Since glaciers in the Himalayas are in a retreating phase, glacial lakes are growing and pose a potentially large risk to downstream infrastructure and life.
- An “Inventory and Monitoring of Glacial Lakes / Water Bodies in the Himalayan Region of Indian River Basins”, sponsored by Climate Change Directorate, Central Water Commission, and done by National Remote Sensing Centre during 2011-15, found that there are 352, 283 and 1,393 glacial lakes and water bodies in the Indus, Ganga and Brahmaputra basins respectively.

How can the risk be reduced?

- The NDMA guidelines say that risk reduction has to begin with identifying and mapping such lakes, taking structural measures to prevent their sudden breach, and establishing mechanism to save lives and property in times of a breach.
- According to NDMA, glacial retreat due to climate change occurring in most parts of the Hindu Kush Himalaya has given rise to the formation of numerous new glacial lakes.
- Potentially dangerous lakes can be identified based on field observations, records of past events, geomorphologic and geotechnical characteristics of the lake/dam and surroundings, and other physical conditions.





- NDMA has recommended use of Synthetic-Aperture Radar imagery to automatically detect changes in water bodies, including new lake formations, during the monsoon months. It has said methods and protocols could also be developed to allow remote monitoring of lake bodies from space.
- To manage lakes structurally, the NDMA recommends reducing the volume of water with methods such as controlled breaching, pumping or siphoning out water, and making a tunnel through the moraine barrier or under an ice dam.
- A landslide occurred along the Phuktal (tributary to Zaskar river) on December 31, 2014 in Kargil district of Ladakh, leading to a potential flood situation on May 7, 2015. The NDMA created an Expert Task Force which, along with the Army, used explosives to channel water from the river using controlled blasting and manual excavation of debris.

Are there early warning systems in place?

- The number of implemented and operational GLOF EWS is still very small, even at the global scale. In the Himalayan region, there are at three reported instances (two in Nepal and one in China) of implementation of sensor- and monitoring-based technical systems for GLOF early warning.
- India, though, has a remarkable history of successful warnings in relation to Landslide Lake Outburst Floods (LLOFs), dating back to the 19th century. In 1894, a landslide in Gohna, Uttarakhand dammed the main river. On July 5 that year, the engineer in charge estimated the lake would overflow the dam in mid-August, which eventually happened.
- Despite the devastating impact of the flood, including washing away of most buildings along the river and severe destruction in Srinagar, no victims were reported, thanks to the precise prediction and the early warning to the population. This was made possible by the installation of a telephone line between the lake and the downstream towns of Chamoli, Srinagar etc.

Lingayats

(Source: [The Indian Express](#))

Context: *Politics around the Lingayat community has once again taken centre stage in Karnataka, with a section of BJP MLAs and seers in the community demanding inclusion of a large Lingayat sub-sect in an OBC quota category that provides 15% reservation in government jobs and education in the state.*

Who are the Lingayats?

- The Lingayats are a dominant community who make up nearly 17% of Karnataka's six crore population.
- The community can determine the outcome of polls in as many as 90-100 of the state's 224 Assembly constituencies.
- The Lingayats, classified as a Hindu sub-caste called Veerashaiva Lingayats, are essentially followers of the 12th-century philosopher Saint Basavanna, who started a movement to help sections of society break away from the chains of caste.
- The Veerashaiva Lingayats are an amalgamation of the followers of Basavanna's teachings and Veerashaivas who follow more traditional Hindu practices. The Lingayat community has many sub-sects identified on the basis of the vocations they followed.

What is the current controversy?

- Veerashaiva Lingayats have been provided 5% reservation under a special category called 3B. A sub-sect called the Panchamasali Lingayats — basically agriculturists who account for nearly 70% of Lingayats — have now risen in protest seeking reservations under the category 2A, which currently provides 15% reservations to backward castes.



- The demand has been raised by BJP MLA Basavaraj Patil Yatnal and two prominent seers, Jaya Basava Mruthyunjaya Swami and Vachananda Swami. A protest march and rallies in parts in north and central Karnataka since January 14 have put pressure on Yediyurappa to take a decision.

The Prevention of Insults to National Honour act, 1971

(Source: [Indian Express](#))

Context: *Police in Uttar Pradesh's Pilibhit district have booked the mother and brother of a farmer who had died during the farmers' agitation in Delhi, under The Prevention of Insults to National Honour Act, 1971, after his body was allegedly draped in the national flag.*

What Prevention of Insults to National Honour Act says

- The law, enacted on December 23, 1971, penalises the desecration of or insult to Indian national symbols, such as the National Flag, the Constitution, the National Anthem, and the Indian map, as well as contempt of the Constitution of India.
- Section 2 of the Act, "Insults to Indian National Flag and Constitution of India", says: "Whoever in any public place or in any other place within public view burns, mutilates, defaces, difiles, disfigures, destroys, tramples upon or otherwise shows disrespect to or brings into contempt (whether by words, either spoken or written, or by acts) the Indian National Flag or the Constitution of India or any part thereof, shall be punished with imprisonment for a term which may extend to three years, or with fine, or with both."
- As per the Act, "disrespect to the Indian National Flag means and includes", among other things, "using the Indian National Flag as a drapery in any form whatsoever except in State funerals or armed forces or other para-military forces funerals". (Explanation 4(d) under Section 2) Section 3.22 of The Flag Code of India, 2002 (which deals with laws, practices and conventions that apply to the display of the national flag), reads: "The Flag shall not be used as a drapery in any form whatsoever except in State/Military/Central Paramilitary Forces funerals hereinafter provided."
- Section 3.58 says: "On occasions of State/Military/Central Paramilitary Forces funerals, the flag shall be draped over the bier or coffin with the saffron towards the head of the bier or coffin. The Flag shall not be lowered into the grave or burnt in the pyre."

Use of flag in funerals

- A senior advocate at the Allahabad High Court said that the flag can only be used during a funeral if it is accorded the status of a state funeral.
- Apart from police and armed forces, state funerals are held when people who are holding or have held office of President, Vice-President, Prime Minister, Cabinet Minister, Chief Minister pass away.
- The status of a state funeral can be accorded in case of death of people not belonging to the armed forces, police or the above-mentioned categories by the state government. Then too, the national flag can be used.
- The latest to get a state funeral from fields outside police, armed forces and government dignitaries was Roddam Narasimha, who was an aerospace scientist and fluid dynamicist from Andhra Pradesh. Others who were accorded a similar honour recently were actors Sridevi and Shashi Kapoor.

Government Securities?

(Source: [Indian Express](#))

Context: *The Reserve Bank of India (RBI) said that it will give small investors direct access to its government securities trading platform.*

What are government securities, or g-secs?

- These are debt instruments issued by the government to borrow money.
- A Government Security (G-Sec) is a tradeable instrument issued by the Central Government or the State Governments. It acknowledges the Government's debt obligation.
- Such securities are short term (usually called treasury bills, with original maturities of less than one year) or long term (usually called Government bonds or dated securities with original maturity of one year or more).
- In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs). G-Secs carry practically no risk of default and, hence, are called risk-free gilt-edged instruments.
- The two key categories are treasury bills – short-term instruments which mature in 91 days, 182 days, or 364 days, and dated securities – long-term instruments, which mature anywhere between 5 years and 40 years.
- Small investors can invest indirectly in g-secs by buying mutual funds or through certain policies issued by life insurance firms.
- To encourage direct investment, the government and RBI have taken several steps in recent years. Retail investors are allowed to place non-competitive bids in auctions of government bonds through their demat accounts. Stock exchanges act as aggregators and facilitators of retail bids.

Are g-secs tax free? How do they compare with bank FDs?

- Like bank fixed deposits, g-secs are not tax-free.
- They are generally considered the safest form of investment because they are backed by the government. So, the risk of default is almost nil.
- However, they are not completely risk free, since they are subject to fluctuations in interest rates.
- Bank fixed deposits, on the other hand, are guaranteed only to the extent of Rs 5 lakh by the Deposit Insurance and Credit Guarantee Corporation (DICGC).

Pradhan Mantri Urja Ganga Project

(Source: [PIB](#))

Context: *The PM dedicated to the nation the 348 km Dobhi – Durgapur Natural Gas Pipeline section, which is part of the Pradhan Mantri Urja Ganga project.*

About the Pradhan Mantri Urja Ganga Project:

- It is a gas pipeline project that aims to provide cooking gas to people.
- It was launched in 2016 in Varanasi and later extended to people in the states of Bihar, West Bengal, Odisha and Jharkhand.
- The government is taking the initiative to connect the eastern states with the national gas grid.
- The total length of the pipeline under the Pradhan Mantri Urja Ganga Project is approximately 3,384 km, out of which 766 km of pipeline is in Odisha state and the balance 2,618 km is in the states of Uttar Pradesh, Bihar, Jharkhand, West Bengal & Assam.

- The project will not just supply CNG to automobiles and cooking gas to household kitchens in cities along the route, but also to industries to meet their feedstock or fuel requirement.
- The project is being implemented by GAIL.

Atmanirbhar Bharat Rojgar Yojana

(Source: [PIB](#))

Context: *Atmanirbhar Bharat Rozgar Yojana (ABRY) has been launched to incentivize employers for the creation of new employment along with social security benefits and restoration of loss of employment during the COVID-19 pandemic.*

About the Atmanirbhar Bharat Rojgar Yojana (ABRY):

- Government of India will provide subsidy for two years in respect of new employees engaged on or after 1st October, 2020 and up to 30th June, 2021.
- Government of India will pay both 12% employees' contribution and 12% employers' contribution i.e. 24% of wages towards EPF in respect of new employees in establishments employing upto 1000 employees for two years
- Government of India will pay only employees' share of EPF contribution i.e. 12% of wages in respect of new employees in establishments employing more than 1000 employee for two years.
- An employee drawing monthly wage of less than Rs. 15000/- who was not working in any establishment registered with the Employees' Provident Fund Organisation (EPFO) before 1st October, 2020 and did not have a Universal Account Number or EPF Member account number prior to 1st October 2020 will be eligible for the benefit.
- Any EPF member possessing Universal Account Number (UAN) drawing monthly wage of less than Rs 15000 who made exit from employment during Covid pandemic from March 1, 2020, to September 30, 2020, and did not join employment in any EPF covered establishment up to September 30 will also be eligible to avail benefit.

Spinal Muscular Atrophy

(Source: [The Hindu](#))

Context: *A gene therapy costing ₹16 crore is the only shot at life for nearly 200 children with Spinal Muscular Atrophy (SMA) Type 1, a rare genetic disease, in Karnataka.*

What is it?

- Spinal muscular atrophy is a group of genetic disorders in which a person cannot control the movement of their muscles due to a loss of nerve cells in the spinal cord and brain stem. It is a neurological condition and a type of motor neuron disease.
- Spinal muscular atrophy (SMA) causes muscle wasting and weakness. It can be difficult for a person with SMA to stand, walk, control their head movements, and even, in some cases, breathe and swallow. Some types of SMA are present from birth, but others appear later in life. Some types affect life expectancy.
- SMA affects one in every 8,000–10,000 people around the world, according to Genetics Home Reference.
- There is no cure for SMA, but new drugs, such as nusinersen (Spinraza) and onasemnogene abeparvovec-xioi (Zolgensma), may slow its progress.



Types

- There are different types of SMA. They vary in terms of when symptoms start to appear and how they affect life expectancy and the quality of life.
- The National Institute of Neurological Disorders and Stroke describe four types:

- **SMA type I**

- SMA affects physical function but not necessarily intellectual ability.
- SMA type 1, or Werdnig-Hoffmann disease, is a serious condition that usually appears before the age of 6 months. A child may be born with breathing problems, which can be fatal within a year without treatment.
- Symptoms include muscle weakness and twitching, a lack of ability to move the limbs, difficulty feeding, and, in time, a curvature of the spine. With newer treatments, such as disease modifying therapies (DMTs), some children with SMA type 1 can now learn to sit or walk.
- A doctor may detect SMA type 1 before birth, as tests may show low levels of fetal movement during the final months of pregnancy. If not, it will become evident within the first few months of life.

- **SMA type 2**

- Symptoms of SMA type 2 usually appear at the age of 6–18 months. The infant may learn to sit, but they will never be able to stand or walk. In some cases, without treatment, the individual may lose their ability to sit.
- Life expectancy depends on whether breathing problems are present. Most people with SMA type 2 survive into adolescence or young adulthood. Treatment with DMTs can help.

- **SMA type 3**

- SMA type 3, or Kugelberg-Welander disease, appears after the age of 18 months. The individual may have scoliosis or contractures, a shortening of the muscles or tendons, which can prevent the joints from moving freely.
- Most people will continue to be able to walk, but they may have an unusual gait and experience difficulty running, climbing steps, or rising from a chair. There may also be a slight tremor of the fingers. Complications include a higher risk of respiratory infections.
- With appropriate treatment, including with DMTs, a person can have a normal life expectancy.

- **Adult SMA**

- Adult SMA, or SMA type 4, is rare.
- It begins after the age of 21 years. The person will have mild to moderate proximal weakness, which means that the condition affects the muscles closest to the center of the body.
- It will not usually affect life expectancy.

SPINAL MUSCULAR ATROPHY - OVERVIEW



TROPEX 21

(Source: [PIB](#))

Context: *Indian Navy's largest war game – the biennial Theatre Level Operational Readiness Exercise (TROPEX 21) - which commenced in early January, is currently underway with participation of all operational units of Indian Navy including ships, submarines, aircraft as well as units of the Indian Army, Indian Air Force and Coast Guard.*

About TROPEX:

- TROPEX (Theatre Level Operational Readiness Exercise) is Indian Navy's largest exercise.
- The exercise is being conducted over a vast geographical expanse in the Indian Ocean Region including its adjunct waters and is aimed at testing combat readiness of the Navy in a complex multi-dimensional scenario set in the context of the current geo strategic environment.
- The Theatre Level exercise also aims to validate Navy's offensive-defence capabilities, safeguard national interests in the maritime domain and promote stability and peace in the Indian Ocean Region.
- The month-long drill will witness distinct phases that will also test the Navy's transition from peace time to hostilities.
 - In the first phase, the Indian Navy had conducted coastal defence exercise 'Sea Vigil' along the entire coastline and Island territories of India.
 - Exercise Sea Vigil was followed by a large-scale Tri-Service joint amphibious exercise AMPHEX-21, which was conducted in the Andaman and Nicobar group of Islands.
 - The latest phase was the 'Weapon Workup Phase' which saw multiple 'on-target' ordnance deliveries including missiles, torpedoes and rockets from frontline warships, aircraft and submarines. It demonstrated the lethal firepower of the Indian Navy and reaffirmed the Navy's capability to carry out long range maritime strikes in the Indian Ocean Region.

Meri Saheli Initiative

(Source: [PIB](#))

Context: *'Meri Saheli' initiative was launched as Pilot Project by Railway Protection Force (RPF) across South Eastern Railway for security of women passengers in trains originating in that zone.*

What is the Meri Saheli Initiative?

- Indian Railways has launched 'Meri Saheli' initiative for focused action on security of women with an objective to provide safety and security to lady passengers travelling by trains.
- Under the initiative, a team of lady officer and staff have been formed. The team will visit all of the passenger coaches including ladies coaches to identify women passengers.
- Details of their journey including coach number & seat number will be noted down by the team, especially if a lady is travelling alone in the train.
- The passengers will be briefed about RPF Security Helpline No. 182, GRP Security Helpline No. 1512 and other precautions, for example, not to take food from strangers, buying food from IRCTC authorized stalls only & taking care of luggage.
- The team will also advise them to feel free to contact the train escort party and dial 182 in case of any emergency.
- The details of the passengers will be conveyed to en-route Divisions & Zones to meet the passengers at their convenience till they reach their final destination.
- At the end of the journey, a feedback will be collected from the lady passengers regarding their journey experience and safety measures taken.



- The 'Meri Saheli' initiative was started by the Railway Protection Force (RPF) as a pilot project in the South Eastern Railway in September 2020 and after getting positive response from women passengers, it was extended to all zones.
- Dedicated teams of lady RPF personnel have been formed across all zonal railways for its implementation.

Saral Pension plan

(Source: [The Hindu Businessline](#))

Context: *In order to simplify insurance product choice for lay investors, the insurance regulator, IRDAI, has been introducing standard products with uniform features in both life and non-life insurance. Recently, a new product has been added to the list — the immediate annuity plan, Saral Pension, which all life insurers have to offer from April 1, 2021.*

What is it?

- An annuity plan helps an individual to receive a regular payment from an insurer for life, after making a lump-sum or regular payment for a certain period. There are usually two types of annuity plans — immediate and deferred.
- Saral Pension is an immediate annuity plan where the policyholder or the investor makes a lumpsum payment upfront and the annuity payment starts immediately. The product offers pension for lifetime.
- In industry jargon, Saral Pension is a single premium, non-linked, non-participating immediate annuity plan.
- This means that it offers a guaranteed return that does not depend on markets or the insurers' profits. Like other annuity plans, Saral Pension doesn't have any cap on the investment amount.
- Saral Pension simplifies the selection for the individual and brings uniformity across insurers.
- Saral Pension offers two annuity options to the policyholders or annuitant.
 - One, life annuity with 100 per cent return of purchase price where the pension (annuity amount) is paid for life. The initial investment (purchase price) is paid back to the nominee on the death of the investor.
 - The second option is joint life annuity where the annuity amount is first paid to the initial investor for life.
- After the death of the person, if the spouse is surviving, the spouse continues to receive same pension for life till his/her death.
- Subsequently, on death of the spouse, the purchase price is payable to the nominee. But if the spouse has pre-deceased the investor, the purchase price is payable to the nominee. While there is no cap on the maximum, the minimum annuity amount to be paid (by the insurer) is ₹1,000 per month, ₹3,000 per quarter, ₹6,000 per half-year and ₹12,000 per year.
- This product, as per IRDAI's guidelines, should be made available across all distribution channels.
- Unlike other annuity plans in the market where the minimum age is 20-30 years, under Saral Pension, the minimum age at entry is 40 years (maximum 80 years).

SAKSHAM

(Source: [PIB](#))

What is Saksham?

- It is a dynamic portal for jobs/mapping the skills of Shramiks vis-à-vis requirements of MSMEs and other industries all across the country.

- The portal with the demand and supply data uses algorithm and Artificial Intelligence (AI) tools, for geo-spatial information on demand and availability of Shramiks, and also provide analysis on skill training programmes of Shramiks.
- The pilot portal originally initiated with two districts is now being launched as an all India portal.

Key features of SAKSHAM:

- A dynamic job portal – opportunity for Shramiks and MSMEs.
- Facilitate creation of 10 lakh blue collar jobs
- Direct connect between Shramiks and MSMEs, no middleman in between
- Minimise migration of Shramiks – job opportunity in proximate MSMEs



INTERNATIONAL

Tianwen-1

(Source: [Indian Express](#))

Context: China's Tianwen-1 mission successfully entered the orbit of Mars, making it the first time for a Chinese mission to be able to successfully make a journey to another planet.

Details:

- China launched Tianwen-1 along with the UAE's Hope mission and NASA's Perseverance rover mission in July.
- All three missions to Mars were launched during the brief launch window available in July.
- During this launch window, Earth and Mars were aligned at their closest points in two years, which means using less fuel to reach the planet.
- Launch windows are significant since if a spacecraft is launched too early or too late, it will arrive in the planet's orbit when the planet is not there.

About Tianwen-1

- China's first Mars probe is called Tianwen-1 (formerly Huoxing 1), which means "Questions to Heaven". The spacecraft is carrying 13 payloads (seven orbiters and six rovers) consisting of an orbiter, a lander and a rover, and the mission aims to study the thickness and sub-layer distribution of the Martian soil.
- The spacecraft, weighing five tonnes, launched on a Long March 5 rocket—a launch system developed by the China Academy of Launch Vehicle Technology (CALT)—from Xichang, China. The scientific goals of the mission include studying Martian topography and geology and determining the composition of the surface material, climate and environment.
- The orbiter will use high-resolution cameras to search for a suitable landing site somewhere in the Utopia Planitia region. It weighs around 240 kg and will carry cameras, a subsurface radar, a spectrometer, a magnetometer, and atmospheric sensors.
- The rover is expected to land on Mars in May and the success of the mission will make China the third country to achieve a Mars landing after the USSR and the US.
- As per a report in the Air and Space Magazine, the Chinese mission will be the first to place a ground-penetrating radar on the Martian surface, which will be able to study local geology, as well as rock, ice, and dirt distribution. Two candidate landing sites have been identified, one of them being Utopia Planitia, according to Space News.
- China's previous 'Yinghuo-1' Mars mission, which had piggybacked on a Russian spacecraft, had failed after it could not leave the Earth's orbit and disintegrated over the Pacific Ocean in 2012.





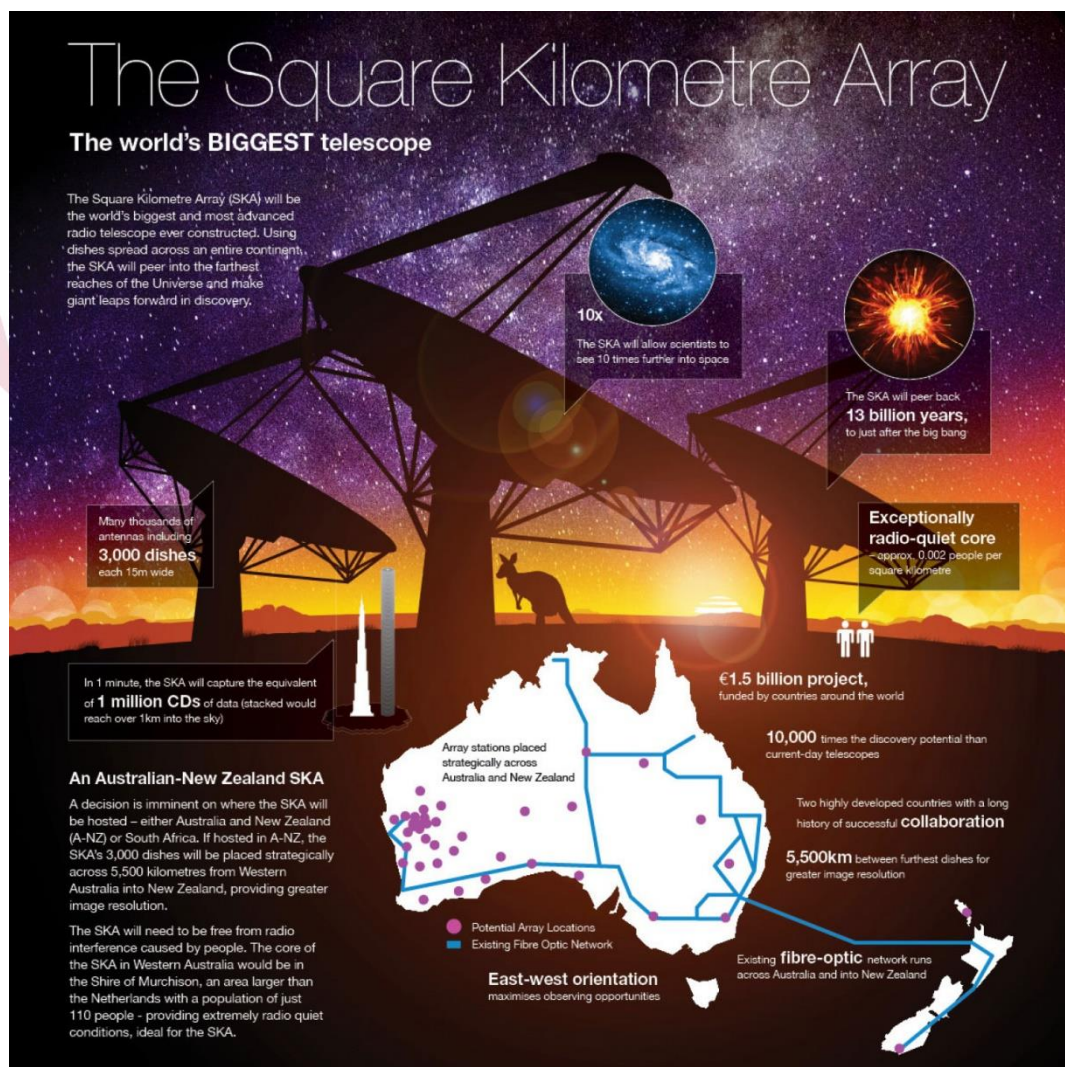
Square Km Array

(Source: [Indian Express](#))

Context: Recently, a global collaboration for the world's largest radio telescope took formal shape with the constitution of an Intergovernmental Council. The Square Kilometre Array Observatory (SKAO) project, spanning two continents and involving the participation of 20 countries, is expected to be ready for carrying out observations towards the end of this decade.

What will SKAO do?

- Headquartered and controlled from the UK, the SKA is not a single telescope but will be an array of antennas strategically designed and set up in South Africa and Australia.
- It is proposed to be built in two phases, with an estimated 1.8 billion euros required for phase-I, planned over the next ten years.
- SKA will allow astronomers to look deeper into the universe and unravel secrets about its evolution.
- Among its goals are: studying the universe and its evolution, the origin and evolution of cosmic magnetism, and dark energy and evolution of galaxies.
- Scientists are also optimistic that the SKA will be able to detect very weak extra-terrestrial signals and search for molecules that support life.

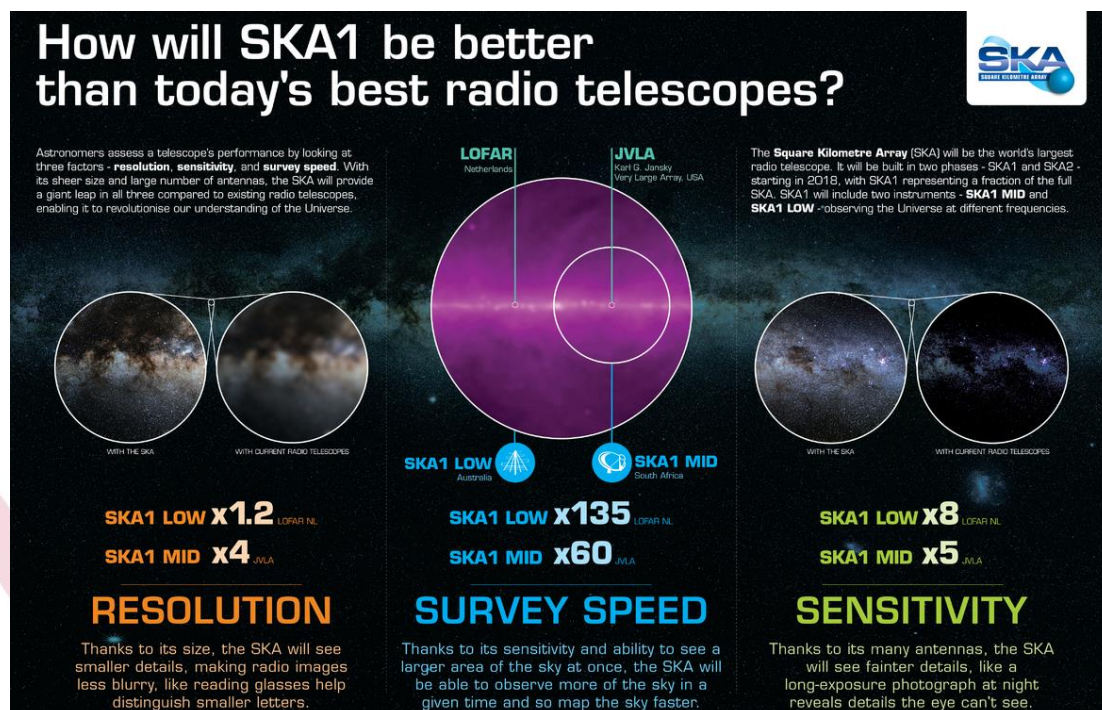


How is it designed ?

- The telescope in South Africa will have 197 dishes, each 15 metres in diameter, and will be located in the Karoo region. Of these, 64 dishes are on site and are at present operated by the South African Radio Astronomy Observatory.
- The telescope in Australia will have 1,31,072 antennas, each measuring 2 m high. They will be installed on the campus of the Murchison Radio-astronomy Observatory operated by the Commonwealth Scientific and Industrial Research Organisation.
- Started in 2014, the design and engineering took six years to complete, with science and policy proposals coming from over 1,000 scientists, and more than 500 engineers representing 20-plus countries who deliberated over three decades.

Which are the SKAO member countries ?

- The three hosting nations are South Africa, Australia and the UK — headquarters in which will remotely monitor the telescope operations located in Australia and South Africa. Member nations include Canada, China, France, Germany, India, Japan, Italy, the Netherlands, Portugal, South Korea, Spain, Sweden and Switzerland.
- In addition, eight African countries are taking part in coordinated actions to support the expansion of the project on the continent.
- Although there are 16 member nations, not all of them have officially attained membership as yet. India's SKA membership, for example, is currently under review with the DAE and DST, and is expected to be completed sometime this year.



Einsteinium

(Source: [Indian Express](http://www.indianexpress.com))

Context: A team of scientists at the Berkeley Lab has reported some of the properties of element 99 in the periodic table called “Einsteinium”, named after Albert Einstein.

The discovery of the element

- It was discovered in 1952 in the debris of the first hydrogen bomb (the detonation of a thermonuclear device called “Ivy Mike” in the Pacific Ocean).
- Since its discovery, scientists have not been able to perform a lot of experiments with it because it is difficult to create and is highly radioactive. Therefore, very little is known about this element.
- When Ivy Mike was detonated on November 1, 1952, as part of a test at a remote island location called Elugelab on the Eniwetok Atoll in the South Pacific, it produced an explosion that was about 500 times more destructive than the explosion that occurred at Nagasaki.
- Subsequently, the fallout material from this explosion was sent to Berkeley in California for analysis, which was examined by Gregory Choppin, Stanley Thompson, Albert Ghiorso, and Bernard Harvey, who within a month had discovered and identified over 200 atoms of the new element.
- According to a podcast run by Chemistry World, the discovery of the element was not revealed for at least three years and it was first suggested that the element be named after Einstein in the Physical Review in 1955.

World's smallest reptile

(Source: [Indian Express](#))

Context: *A chameleon discovered in the island country of Madagascar by scientists from Germany and Madagascar may be the world's smallest adult reptile. The discovery has been reported in the journal Scientific Reports.*

Details:

- The team found one male and one female of the species, named *Brookesia nana*, during an expedition in 2012. The male has a length (snout to vent) of 13.5 mm and a total length of 21.6 mm when the tail is included. For context, a six-inch ruler (150 mm) would accommodate almost seven of these males in a row, tails outstretched. The female is slightly longer at 28.9 mm.
- Previously, the chameleon species *Brookesia micra* was thought to be the smallest. The average length of adults of this species is 16 mm (29 mm with tail), while the smallest adult male has been recorded at 15.3 mm.
- Reptiles come in a wide size range. The longest, the reticulated python, at 6.25 m is almost as long as 289 *Brookesia nanas*. The gharial is more than 200 *Brookesia nanas* long, while the king cobra can measure up to nearly 180 *Brookesia nanas*.
- On the smaller size, the gecko *Sphaerodactylus ariasae* of the Caribbean is almost as small as the *Brookesia micra*, or about 20-25% longer than the *Brookesia nana*. The gopher tortoise is equivalent to 12 *Brookesia nanas*, and the veiled chameleon to about 18 specimens of the newly reported Madagascar species.
- Madagascar is home to tiny lizards and also the smallest species of snakes. One possible reason for such small species is the so-called "island effect" that causes species on small islands to get smaller. But the study authors note that the new chameleon occurs in a rainforest.
- Scientists believe the species might be threatened by extinction because of habitat degradation.



The Nord Stream 2 pipeline

(Source: [Indian Express](#))

Context: *In a development that could ratchet up tensions between the United States and Germany, the consortium building the Nord Stream 2 pipeline has said that it has resumed work on the controversial project.*

The Nord Stream 2 pipeline

- In 2015, Gazprom and 5 other European energy firms decided to build Nord Stream 2, valued at around \$11 billion. The 1,200 km pipeline will run from Ust-Luga in Russia to Greifswald in Germany, and will carry 55 billion cubic metres of gas per year.
- The under-construction pipeline will run along the already-completed Nord Stream 1 system, and the two together will supply an aggregate of 110 billion cubic metres of gas to Germany per year.
- The pipeline falls in German and Danish territory, and all but 150 km of pipes for the project have already been laid.

Why the pipeline is controversial

- Since it was first planned, Nord Stream 2 has drawn criticism from the US, where both the Democratic and Republican parties believe that the project would increase Europe's dependence on Russia for natural gas, thus boldening its President Vladimir Putin. Currently, EU countries already rely on Russia for 40% of their gas needs.



- The project has also irked Ukraine, whose ties with Russia have seriously deteriorated in the aftermath of the Crimean conflict in 2014. There is an existing land pipeline between Russia and Europe that runs through Ukraine, which feels that once Nord Stream 2 is completed, Russia could bypass the Ukrainian pipeline, and deprive the country of lucrative transit fees.
- France has also expressed its opposition to the project, as have some others in Eastern Europe.
- Germany, however, has solidly stood behind the Nord Stream 2, despite opposition from allies, with Chancellor Angela Merkel's government insisting that it is a commercial project. Critics of the US position say that Washington is forcing Europe to buy its sea-borne liquified natural gas.

Denmark's artificial energy island project

(Source: [Indian Express](#))

Context: *The Danish government approved a plan to build an artificial island in the North Sea as part of its effort to switch to green energy. The project is being called the largest construction project to be undertaken in Denmark's history with an estimated cost of DKK 210 billion.*

What is an energy island?

- An energy island is based on a platform that serves as a hub for electricity generation from surrounding offshore wind farms.
- The idea is to connect and distribute power between Denmark and neighbouring countries. Denmark has already entered into agreements with the Netherlands, Germany and Belgium to begin the joint analysis of connections in the energy island.
- In June 2020, the Danish Parliament decided to initiate the construction of two energy islands, which will export power to mainland Denmark and neighbouring countries. One of these islands will be located in the North Sea and the second island, called the island of Bornholm, will be located in the Baltic Sea.
- The move has come after the EU announced its plans to transform its electricity system to rely mostly on renewables within a decade and to increase its offshore wind energy capacity by over 25-fold by the year 2050.
- The artificial island, whose construction was approved on Thursday, will be located about 80 km into the North Sea and the majority of it will be owned by the Danish government. Its primary purpose is to provide large-scale offshore wind power.
- Estimates suggest that it will be able to store and produce enough green energy to cover the electricity requirements of over 3 million households in the European Union (EU).
- According to the Danish Energy Agency, as part of the Climate Agreement for Energy and Industry, Denmark wants to become the first country in the world to begin working on such energy islands with a total capacity of about 5 GW offshore winds. The construction of both islands is expected to be complete by 2030.

UAE's Hope Mars probe

(Source: [Indian Express](#))

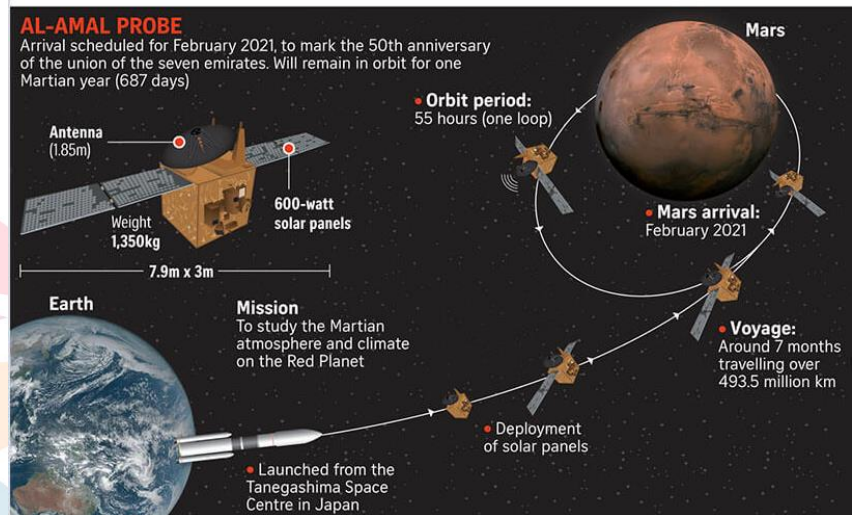
Context: *The United Arab Emirates' first mission to Mars entered the orbit of the red planet on Tuesday, seven months after the Emirati-built 'Hope Probe' was launched from Tanegashima in Japan. With this, the UAE has become the fifth country after the US, Russia, China, the EU, and India, to reach the Martian orbit.*

What is the UAE's Hope Probe?

- First announced in July 2014, the Emirates Mars Mission was developed and operated by the Mohammed Bin Rashid Space Centre in collaboration with the University California, Berkeley, Arizona State University and the University of Colorado-Boulder in the United States.
- In July 2020, it was launched from the Tanegashima Space Centre in Japan aboard a Mitsubishi Heavy Industries' H-II A rocket and its launch became the 45th for H-II A. Carrying three instruments, including a high-resolution camera and a spectrometer, the spacecraft is on an orbital mission to collect data on Martian climate dynamics and help scientists understand why Mars's atmosphere is decaying into space.
- Hope is the UAE's fourth space mission and first interplanetary one. The previous three were all Earth-observation satellites. Once it is successfully able to reach the planet, it will start orbiting the planet. Its overall mission life is one Martian year, which is about 687 days on Earth.
- The mission is one of three launched to Mars from Earth in July. The other two — China's Tianwen-1 dual orbiter-rover and Perseverance from NASA — are expected to reach the red planet later this month.
- While Hope was the first to arrive, Tianwen-1 will reach on February 10, followed by Perseverance on February 18.
- The timing of the mission is crucial as it was launched at a time when Earth and Mars were aligned at their closest points around the Sun, the Verge reported.

The Al-Amal (Hope) probe

First Arab space mission to Mars, led by the United Arab Emirates



What is the objective of the mission?

- The primary objective of the mission is to study Martian weather dynamics. By correlating the lower atmosphere and upper atmosphere conditions, the probe will look into how weather changes the escape of hydrogen and oxygen into space.
- By measuring how much hydrogen and oxygen is spilling into space, scientists will be able to look into why Mars lost so much of its early atmosphere and liquid water. Over the next two months, the spacecraft will continue to move into its final orbital position — around 20,000-43,000 kilometres about the planet. The distance is calculated in a way that allows the craft to use all three instruments to capture a complete view of the Martian atmosphere every nine days for the next two years.
- It is expected to create the first complete portrait of the planet's atmosphere. With the information gathered during the mission, scientists will have a better understanding of the climate dynamics of different layers of Mars' atmosphere.
- Al-Amal will be the first "true weather satellite" orbiting around the planet. But the UAE also wants the mission to inspire the country's youth to take up careers in the sciences. The government also hopes that the mission will boost the UAE's science and technology sector.

Mains

GS II

India-EU Relations

(Source: [The Hindu](#))

Context : A key EU objective in its trade relations with India is to work towards a sound, transparent, open, non-discriminatory and predictable regulatory and business environment for European companies trading with or investing in India, including the protection of their investments and intellectual property. The aim is to contribute to unlocking the untapped potential of two-way trade between the EU and India.

EU-India trade negotiations

- Negotiations for a comprehensive Free Trade Agreement (FTA) between the EU and India were launched in 2007 and suspended in 2013 due to a gap in the level of ambition between the EU and India. The EU remains committed to working towards an ambitious, comprehensive and balanced agreement FTA with India that responds to each side's key interests and is a win-win.
- The EU continues engaging with India to ensure that such an agreement is economically meaningful, delivering real new market openings in all sectors to both sides, contains a solid rules-based component, and includes a comprehensive trade and sustainable development chapter, notably in order to deal with social and environmental impacts.
- Meanwhile, the EU is ready to consider launching negotiations on a stand-alone investment protection agreement, which would increase legal certainty for investors on both sides.
 - The EU is India's largest trading partner, accounting for €80 billion worth of trade in goods in 2019 or 11.1% of total Indian trade, on par with the USA and ahead of China (10.7%).
 - The EU is the second-largest destination for Indian exports (over 14% of the total) after the USA.
 - India is the EU's 10th largest trading partner, accounting for 1.9% of EU total trade in goods in 2019, well behind the USA (15.2%), China (13.8%) and the UK (12.6%).
 - Trade in goods between the EU and India increased by 72% in the last decade.
 - Trade in services between the EU and India increased rapidly from €22.3 billion in 2015 to €29.6 billion in 2018.
 - The EU's share in foreign investment inflows to India more than doubled from 8% to 18% in the last decade, making the EU the first foreign investor in India.
 - EU foreign direct investment stocks in India amounted to €68 billion in 2018, which is significant but way below EU foreign investment stocks in China (€175 billion) or Brazil (€312 billion).
 - Some 6,000 European companies are present in India, providing directly 1.7 million jobs and indirectly 5 million jobs in a broad range of sectors.

India- Myanmar Relations

(Source: [The Hindu](#))

Context: The long-lingering power struggle in Naypyitaw has finally ended, and the Myanmar junta, led by General Min Aung Hlaing, has won the struggle, dashing decade-long hopes for a truly democratic Myanmar. The future of Myanmar's democracy is uncertain, but the country, sandwiched between two

powerful states competing for power and influence, is certain to be a key piece in the region's geopolitics. Given its high-stakes in Myanmar, New Delhi would need to be nimble-footed and creative in its responses with well-thought-out strategic choices taking precedence over knee-jerk reactions.

The COVID situation

- The COVID-19 Pandemic has shaken up the entire world, and in these troubling times, assistance from neighbouring nations is crucial.
- The developing nations will have to come together to support each other and ensure the safety of its citizens.
- Myanmar and India share a relation of tremendous support, and such exchange of assistance will strengthen the bilateral relations as well as provide the key to not be completely dependent on the western nations in times of crisis.

The Sittwe Port Project

- Infrastructure is indeed very significant for every country, and apart from technical assistance, often financial assistance is needed to complete such projects due to the high amount of capital involved.
- Several infrastructure projects in Myanmar like the Kaladan Multi-Modal Transit Transport Project and the Trilateral Highway have attained assistance from India. A press release recently reported that India and Myanmar have also agreed to work towards the operationalization of the Sittwe port in the Rakhine state in the first quarter of 2021.
- Sittwe port is part of the Kaladan multi-modal transit transport project, which is crucial to India's plans for the landlocked northeastern states to access the Bay of Bengal through Mizoram and to provide alternative connectivity to Kolkata without having to use the circuitous Siliguri corridor. Once the port is operationalized through a private operator, Indian goods can be taken via the Aizawl-Zorinpui-Palletwa axis to Kaladan river, and then transferred to Sittwe port.
- This move is beneficial not only for India and Myanmar but also for other southeastern nations. Such a project is beneficial for enhanced connectivity and economic participation amongst various nations in a convenient manner.
- Consequently, a Special Economic Zone near the Rakhine State would depict a long-standing economic relation between the two. The northeastern states of India will also receive a boost through this project.
- The easy access to the Bay of Bengal will open up new opportunities for trade and investment, especially for northeastern nations, which has the capacity to subsequently benefit the whole country. The trade between Myanmar and India is also bound to rise with this project. The Act East policy of India will receive a colossal incentive on completion of the project.

India's proactive approach towards gaining a regional outreach and building ties with Myanmar

- India shares borders with nine nations which include Afghanistan, Bangladesh, Bhutan, China, Maldives, Myanmar, Nepal, Pakistan, and Sri Lanka. The tensions and conflicts between Pakistan and India are indeed quite popular in the entire world. The deep cultural, as well as historical link between Pakistan and Afghanistan, is well known.
- Additionally, even when diplomatic ties between India and China are still "looking" strong, the pandemic has brought in new dimensions to the relations between the two. Therefore, amongst the nine neighbouring nations, only six nations remain with a potential of healthy and strong bilateral relations.
- Myanmar, being one of these six, the "shared historical, ethnic, cultural and religious ties" between India and Myanmar, is significant in the development of foreign relations of India. Myanmar shares close borders with the Northeast Indian states of Arunachal Pradesh, Manipur, Mizoram and Nagaland with a shared border of 1,643 kilometres and the land-locked nature of these states becomes a myth when we look at their connectivity through Myanmar to the Bay of Bengal.
- Additionally, Myanmar is a key pillar of India's Act East and Neighborhood First Policy. India's 'Act East' policy is a diplomatic initiative to promote economic, strategic and cultural relations with the vast Asia-Pacific region at different levels. Certainly for India's Act East Policy to be successful, the betterment of connectivity with Myanmar and Thailand is vital. Being the only country that sits at the



intersection of India's "Neighborhood First" policy and its "Act East" policy, Myanmar is an essential element in India's practice of regional diplomacy in the Indo-Pacific and serves as a land bridge to connect South Asia and Southeast Asia.

- Myanmar is also India's closest defence partner in the region. Seeing that Myanmar is critical to its national security interests, India provides military training and conducts joint military exercises with the Myanmar Army like the India-Myanmar Bilateral Military Exercise (IMBAX-2017 and IMBEX 2018-19), by which India had trained the Myanmar Army to be able to participate in UN Peacekeeping Operations.
- Delhi has also agreed to train Myanmar army officers and allow them to study at military academies in India. Currently, with an energy portfolio of more than \$ 1.2 billion, Myanmar is the largest destination for India's investment in the oil and gas sector in Southeast Asia.
- Therefore, in terms of the energy sector, defence sector, the Act East Policy and the development of the northeastern nations, the relations with Myanmar will turn out to be very important in the coming future.
- Being an important country amongst the Bay of Bengal countries, Myanmar plays a strategic role in the upliftment of the economy of India. Myanmar and India even share a 725-km maritime boundary in the Bay of Bengal.
- Other agreements such as Project Agreement for the establishment of modern Integrated Check Post at Tamu, MoU for the construction of 50 basic schools and the Project Agreement for the upgrading of agricultural mechanization sub-station will also be signed shortly.
- The development in Rakhine State, the sharing of library material and other factors have a prime influence on the bilateral relations. The humanitarian assistance and the grants provided by India have always been a leading example for many other nations.
- In February 2020, the prime minister and President Myint later held talks at Hyderabad House and ten agreements were signed between the two countries, the focus being on development projects under India's assistance, particularly in the conflict-torn Rakhine state.
- The facts stated above reflect the complete dynamic approach adopted by India to establish strong strategic relations. It is undoubtedly true that both nations have the potential to flourish and can achieve significant heights if given the right incentive. With each other's support, both the nations may even give a competitive edge to the neighbouring nations.
- In fact, the proactive approach of India is indispensable in the prevailing circumstances so as to avoid the negative influence of China on Myanmar. Such influence could even conclude with Myanmar becoming a debt-driven nation in the clutches and control of China, completely.
- The balance of power in the Southeastern nations may even receive a drop once China acquires the control of Myanmar. This may cause a major security concern for India. But with a total bilateral trade of \$2 billion, India's economic engagement with Myanmar lags behind China, behoving Modi's government to scale up India-Myanmar economic ties. Therefore, the proactive approach being initiated by India becomes a key factor to influence the regional relations.
- If a reactive approach is adopted by India, it will be in a ditch with too many problems all occurring at once. The consequences will cost more if prevention is not done currently. It is a known fact that a spark neglected burns the house.
- Since India can predict the circumstances in the future as an outcome of these bilateral relations with reasonable certainty, a proactive approach becomes suitable. The benefits accruing to both the participants is desirable and may even achieve a higher standard, even if one of the participants plays a leading role.

The dominant powers in ties with Myanmar

- There are several dominant powers that are building ties with Myanmar, namely India, China, USA, and other Western nations. Beijing is using COVID diplomacy to push its BRI initiative in neighbouring Myanmar via CMEC.
- China has also influenced economic development and political stability in Myanmar. In January 2020, "Paukphaw", which literally means born together, implying not only a shared destiny but racial kinship, was reinforced through strong political and economic bonds between Myanmar and China. It was even



reported recently, in September 2020, that China seeks to set up military logistic facilities in Myanmar. This is a measure to maintain military control in the region. The Auditor General of Myanmar also cautioned the government officials of Myanmar about the dependence on debt being given through Chinese loans. The “client state” formula or the “satellite state” formula of China has already affected Sri Lanka, and Myanmar must take into consideration the impact of the controlling influence of China, no matter how generous China behaves.

- The influence of China on Myanmar dates back to decades of history. However, the rising influence on China on Myanmar was noticed by the US when Barack Obama came to power in 2009 and launched “Pivot to Asia” to emphasize that the US had strategic interests in Asia. Myanmar also launched political and economic reform in 2008 and adopted a “Look West” policy by re-establishing its linkages with the US. Even recently, in August 2020, US new Ambassadorial nominee to Myanmar Thomas Laszlo Vajda has emphasized that one of his goals as envoy would be “to advance US interests and values” in the Southeast Asian country and help defend the country against “malign influences” in a veiled reference to China. This shows how the US has also been observing Myanmar as a potential ally and wishes to enhance its position over Myanmar.
- The dominance of Myanmar of neighbouring nations like China and India along with powerful western nations like the US has constantly been rising. In furtherance of promoting its domestic interests, Myanmar has accepted every proposal which may benefit the nation currently, keeping aside the intent behind these proposals.

Balance of Powers and Competing Interests for India

- With Myanmar receiving aid and assistance from different time zones and diverse regions, a crucial question which arises is, how has Myanmar been balancing these powers? China and India not being in a “perfect” relation currently, Myanmar is technically attaining immense assistance from both these competing nations.
- Still, Myanmar has been effectively managing a diplomatic tie with both the nations. Similarly, Myanmar shows no stick-to-the-neighbour formula when dealing with the US. The balance of powers by Myanmar is commendable; however, very vulnerable as well. China and the US are at a constant pseudo-Cold War and with so many competing nations looking for Myanmar as a trophy prize, one day or another, Myanmar will have to choose. Although none of these nations would be quite happy with the second prize.
- With so many competing interests, it may be probable that a country starts to wonder, is it even worth it? India, as a nation, has achieved remarkable heights recently and is still very encouraged to grow. There have been instances when Myanmar has shown a disinterest towards China. One can say that quick glances of the control of China keep occurring at Myanmar and at these junctures, Myanmar has broken several contracts and reacted boldly.
- By challenging China’s monopoly, the Myanmar government is opening strategic space to create further competition between India and the United States on the one hand and China on the other, affording the Myanmar government a more comfortable degree of leverage and autonomy in the international arena.
- There is a high potential for India in Myanmar in various diverse sectors like agriculture, infrastructure and defence. With China trying to push Myanmar into a debt trap, it is the right time for India to stick with Myanmar when Myanmar realizes the intent behind practices of China.
- One can foresee Myanmar’s bias towards India in the coming future. Myanmar has even decided to expedite India-backed infrastructure projects and widen security ties with India as it seeks to balance China’s expanding presence in the country in the backdrop of Beijing’s active cross-border support for rebel groups and push for early completion of BRI projects.
- By challenging the BRI project, Myanmar shows how India is a priority over China. The potential of India and Myanmar in exploring complementary linkages in pharmaceuticals, agriculture, information technology and telecommunication infrastructure, traditional and renewable energy, among others, can present a compelling case for commodity-linked, export-oriented investment.

Cooperation, Rohingya issue



- While a friendless Myanmar junta getting closer to China is a real worry for New Delhi, there are other concerns too. For one, Myanmar's military played a helpful role in helping New Delhi contain the north-eastern insurgencies by allowing Indian military to pursue insurgents across the border into Myanmar. Coordinated action and intelligence sharing between the two forces have in the recent past been instrumental in beating back the insurgent groups in the northeast.
- Equally important is the issue of providing succour to the Rohingya in the wake of the military coup in Myanmar. Unless the military decides to engage in a peace process to gain some brownie points for itself, the Rohingya question is likely to be pushed aside with the campaign against them continuing relentlessly, perhaps with even more ferocity.
- The inability of the states in the region to address the legitimate concerns of the Rohingya or increased violations of their rights could potentially lead to a rise of extremism within the community, which in the longer run would not be in India's interests.
- New Delhi then is left with very few clear policy options. And yet, it must continue to maintain relations with the government in power in Myanmar while discreetly pushing for political reconciliation in the country. In the meantime, the focus must be on improving trade, connectivity, and security links between the two sides.

Conclusion

- Myanmar is a nation with latent qualities and abilities. Although several powers have been influencing the decisions of Myanmar, the actions of Myanmar must portray what is best for its domestic self. The interest of the nations itself must never be subsidized. India has a lot to gain from Myanmar and a lot to give to Myanmar as well.
- This give and take relationship has been the foundation of the bilateral ties between the two nations. However, the ties are in a vulnerable stage currently, but the proactive approach of India can mitigate all doubts and ensure that the struggle to support shall be worth the effort that India is putting in.
- The ties will benefit the neighbouring nations with security and infrastructure and give the Southeastern Asian region a balance of resources as well as power. India is at a stage where it will regret if it backs out now and will have to take the risk of a proactive approach to assure support to Myanmar.

Cuba's economic reforms

(Source: The Indian Express)

Context: *Cuba, which has been run by an authoritarian communist regime for more than six decades, on Saturday announced that it will allow private businesses to operate in most sectors of the national economy. Cuban Labour Minister Elena Feito said that under the new reforms, the number of authorised industries has grown from 127 to over 2,000, with only a minority of industries continuing to be dominated by the state.*

Cuba's economic reforms

- Considered path-breaking, the reforms will allow private involvement in most sectors of the complicated Cuban economy, long controlled by the state.
- Currently, private activity is largely confined to tourism, a sector hit hard by the coronavirus pandemic. As international travel has plummeted, so have the incomes of thousands dependent on tourism, such as tradesmen and taxi drivers.
- Apart from small businesses, the private sector includes lakhs of small farms, cooperative and day labourers, and is estimated to employ around 6 lakh people or 13% of the workforce in the country of 1.1 crore population, as per official data.

Why bring in changes now

- Last year, the Spanish-speaking island nation was heavily impacted by two factors— the economic fallout of the coronavirus pandemic, and sanctions imposed by the US under former President Donald Trump.
- This caused the country's economy to shrink by 11 per cent in 2020, its worst performance in three decades, leading to shortages of basic goods.
- Once the long-overdue reforms are implemented, small businesses which are already operating on the Caribbean island are expected to expand, allowing private players to move beyond tourism and small farms.
- The economic crisis has also forced the state to announce other reforms, such as the devaluation of Cuba's peso currency, deregulation of state businesses and foreign investment, as per a Reuters report. Last year, President Miguel Diaz-Canel said that Cuba would be initiating reforms to increase exports, reduce the dependence on imports and stimulate domestic demand, in an effort to tide over the country's economic challenges.

Relations with the US

- Cuba's decades-long isolation occurred in large part due to its hostility with the United States, despite Florida being only 150 km away from the island's northern coast.
- Things changed in 2015, when former Democratic President Barack Obama and Cuban leader Raul Castro agreed to normalise relations, allowing US citizens to visit Cuba and contribute to the local economy.
- However, many of Obama's policies were reversed by his Republican successor Trump, exacerbating Cuba's economic woes. Now that US foreign policy is again under the control of the Democrats under Joe Biden, experts believe that bilateral ties could improve in the coming future.

India must return to traditional diplomacy

(Source: [The Hindu](#))

Context: *The target audiences of Indian diplomacy's public articulation and responses are changing radically as shown by the statement of the Ministry of External Affairs (MEA), of February 3, on singer Rihanna's tweet.*

Details:

- The direction of Indian diplomacy's external publicity is no longer confined to other governments, international organisations, external and domestic political and business elites, and conference halls and negotiating tables.
- It now extends to international "celebrities", some of whose status is determined very largely by their pop star status.
- It also seeks to take into account apparent and latent sentiment on the Indian streets not only to clarify India's diplomatic positions or refute allegations and misperceptions but also to whip up sentiment on issues important to the government.
- Finally, it aims to forcefully convey to foreign audiences, India's unwillingness to accept perceived or real interference in the country's domestic affairs.

New, assertive norms

- This development is part of the government's impatience with the norms of old-fashioned diplomacy. It is in keeping with the emphasis on establishing a personal rapport with global leaders and what has been often stressed by the External Affairs Minister, S. Jaishankar — the need to take risks to advance Indian positions and interests.
- Thus, new and assertive norms are being adopted which, at least till now, have demonstrated a disdain for international liberal opinion. It is beyond dispute that new directions for Indian diplomacy, in form as



well as in substance, should be constantly sought. But the test of innovation can only be one: is it more effective in advancing Indian objectives?

- It is on this basis that the MEA statement and the widespread social media activity that followed need to be judged. While the statement's origin will not be authoritatively known, it can be legitimately surmised that it was/could not have been through the normal processes of the MEA. Hence, it would have been on the basis of a political decision.
- The hash tags attached to the statements lend credence to this view as also the intensely orchestrated social media response from Indian personalities to tweets by Ms. Rihanna and others. There is nothing intrinsically wrong in building public opinion; all governments as well as groups do so. It is part of the global political and diplomatic processes but must be part of a careful strategy to achieve objectives. Otherwise, it can be counter-productive.
- Mr. Jaishankar tweeted after the MEA statement: "Motivated campaigns targeting India will never succeed. We have the self-confidence today to hold our own. This India will push back". These combative words require a sober analysis.
- There is little doubt that Khalistani groups in western countries would have sensed an opportunity to fish in troubled waters of the farmers' agitation in the Punjab. There should also be no doubt that the Pakistani generals, who have continuously sought to keep the embers of the Khalistan movement warm, would be looking for opportunities to create trouble. This is notwithstanding that the patriotism of Indian Sikhs and their contributions to the nation are beyond question. Thus, it would not be surprising at all if there are "motivated campaigns" against India under way on these issues.

Self-assurance, past and now

- Mr. Jaishankar's assertion that the India of today is self-confident to hold its own is of course true, but it can be argued that right from Independence, India has displayed the self-assurance not to take things lying down; only the methods may have been different.
- Again, there can be no quarrel with the External Affairs Minister's warning that India will "push back". The issue is not about should India "push back" but how and against what and whom. The answers to these questions hold the keys to the effectiveness of diplomacy whose ultimate target audience has to be not domestic sectional interests but global opinion and in the context of India's external interests.
- In this context, a look at the way the Narendra Modi government handled criticism from liberal sections abroad, of the administrative steps taken in Jammu and Kashmir after the constitutional changes of August 2019 and the Citizenship (Amendment) Act (CAA), and the protests that followed, are instructive.
- India then refused to purposefully engage its international liberal critics though it publicly asserted security concerns for the administrative steps and laid stress on the point that the CAA did not impinge on the rights of the Indian minorities.
- Indeed, the government treated its global media critics with disdain, with Mr. Jaishankar emphasising that India's reputation was not decided by a 'newspaper in New York'. Certainly, there was no frenzied response on social media to the allegations against the government on human rights matters through all these episodes.

Ponder over direction

- On this occasion, was the severe response to Ms. Rihanna's tweet on account of her large social media following while the popular reach of global liberal opinion especially in the Trumpian era was limited? Was the object to deter foreign critics from lending their names to "manipulated campaigns"? Was it thought that if more celebrities joined, the farmers' protest would be energised? If these were the thoughts behind the decision then there is a need to check if it succeeded or gave an oxygen boost to the Rihanna tweet.
- Also, it is difficult to imagine that foreign critics like Ms. Rihanna, or for that matter of the Greta Thunberg kind, would be deterred by a concerted Indian pushback of the nature that has been undertaken. In the days of conventional diplomacy, the Rihanna tweet would have perhaps been just ignored, at least officially. But now 'the times they are a-changin'. So, is what the MEA doing headed in



the right direction? Perhaps, the erudite External Affairs Minister should ponder over this, and in doing so also take into account his earlier avatar, as a diplomat.

- The Delhi police have filed a first information report (FIR) against unknown persons who prepared a 'toolkit' which was attached to the first tweet of Swedish teen climate activist Greta Thunberg. The FIR revealed that those undertaking "motivated campaigns" were actively undertaking efforts to embarrass and even harm India through the farmers' protest. A benign view of their objectives can be dismissed.
- India should of course press the governments concerned, especially of Canada, to take action against Khalistani elements. The fact though is that these countries, Canada in particular, have shown scant regard for Indian concerns on this account and it is unlikely that they will change course now.
- Through all this the question that still remains is whether the social storm unleashed in India after the Rihanna tweet would deter other foreign celebrities from pursuing the now amended 'toolkit'. And when have criminal cases based on this kind of an FIR ever reached fruition?

The rise of liberal opinion

- **Finally, it is not the Rihanna-like celebrities who will pose the real challenge in the coming months to the Narendra Modi government, but liberal opinion in democratic western societies. And, it will have far more traction with the advent of the Joe Biden administration in the United States.**
- **A pointer is the interaction of top U.S. Congress members in the India Caucus had, recently; asking India to ensure that "norms of democracy are maintained and peaceful protests and demonstrations be allowed", with this being conveyed to India's Ambassador to the U.S., Taranjit Singh Sandhu.**
- **The government would be now conscious of engaging international liberal opinion rather than merely dismissing it. This does not imply coming under pressure on matters of critical importance to Indian interests.**
- **But it does mean taking recourse to traditional diplomacy even if it is stodgy and unappealing to sections of nationalist Indian opinion.**

POCSO

(Source: [The Hindu](http://TheHindu.com))

Context: *The recent judgment of the Bombay High Court, in Satish Ragde v. State of Maharashtra, in which the accused was acquitted under the POCSO Act, came under massive criticism. The Bench acquitted a man found guilty of assault on the grounds that he groped his victim over her clothes and there was no skin-to-skin contact between them. As this judgment was likely to set a dangerous precedent, the apex court stayed the acquittal.*

The POCSO

- The Protection of Children from Sexual Offences (POCSO) Act was enacted in 2012 especially to protect children (aged less than 18) from sexual assault. The Statement of Objects and Reasons of the Act admitted that a number of sexual offences against children were neither specifically provided for in extant laws nor adequately penalised.
- The UN Convention on the Rights of the Child, ratified by India in 1992, also requires sexual exploitation and sexual abuse to be addressed as heinous crimes. It was therefore felt that offences against children be defined explicitly and also countered through commensurate penalties as an effective deterrence.
- Section 7 of the POCSO Act, inter alia, says that whoever with sexual intent touches the breast of the child is said to commit sexual assault. Whereas Section 8 of the Act provides minimum imprisonment of three years for sexual assault, Section 354 of the Indian Penal Code (IPC) lays down a minimum of one year imprisonment for outraging the modesty of a woman.



IPC and POCSO: Differences

- The difference between POCSO and IPC, as far as the offence of sexual assault is concerned, is two-fold.
 - One, the definition of ‘assault or criminal force to woman with intent to outrage her modesty’ given in the IPC is generic whereas in POCSO, the acts of sexual assault are explicitly mentioned such as touching various private parts or doing any other act which involves physical contact without penetration. ‘Sexual assault’ in POCSO specifically excludes rape which requires penetration; otherwise the scope of ‘sexual assault’ under POCSO and ‘outraging modesty of a woman’ under the IPC is the same.
 - Two, whereas the IPC provides punishment for the offence irrespective of any age of the victim, POCSO is specific for the protection of children. Higher punishment is provided under POCSO not because more ‘serious allegations’ of sexual assault are required but because the legislature wanted punishment to be more deterrent if the victims are children. Therefore, once the act of ‘outraging modesty with the use of assault or criminal force’, which is nothing but ‘sexual assault’, is proved, the requisite punishment must be slapped under POCSO if the victim is a child.
- The essence of a woman’s modesty is her sex and the culpable intention of the accused is the crux of the matter in the cases of sexual assault. In *Vishaka v. State of Rajasthan* (1997), the Supreme Court held that the offence relating to modesty of woman cannot be treated as trivial.
- In *Pappu v. State of Chhattisgarh* (2015), the High Court of Chhattisgarh, though it acquitted the accused under Section 354 of the IPC as the offence was found lacking in use of ‘criminal force or assault’, convicted him for sexual harassment under Section 354A which requires ‘physical contact’ and advances as a necessary element. This case also pertained to squeezing the limbs and breasts of a 13-year-old girl but the High Court did not venture into the area of skin-to-skin contact.
- It will not be out of place to mention here that the Sexual Offences Act 2003 of the U.K. says that touching (with sexual intent) includes touching with any part of the body, with anything else or through anything. The POCSO Act might be silent on such niceties; it is the bodily integrity of a woman that needs to be protected.
- Therefore, in the absence of any specific provision in the POCSO Act which requires skin-to-skin touch as a mandatory element of an offence, any interpretation which dilutes protection to children must be declared ultra vires.

Indo-China Relations

(Source: [The Hindu](http://www.thehindu.com))

Context: *In late January, External Affairs Minister S. Jaishankar said that while both India and China remained committed to a multipolar world, they should recognise that a “multipolar Asia” was one of its essential constituents. As it moves to becoming the third largest economy in the world, India needs to have a clear-eyed world view and strategy as it makes hard choices. It needs to reject the developing country regional mindset that has hobbled national aims and foreign policy.*

Details:

- The Year End Review of the Ministry of Defence pertinently refers to the “sanctity of our claims in Eastern Ladakh” instead of the term “border” used since 1954, opening space for a settlement. We are now confidently moving out of the predicament that Jawaharlal Nehru placed us in Kashmir, fully integrating it into the Indian Union and consolidating our claim line.
- The External Affairs Ministry is also now more forthright. We have a “special and privileged strategic partnership” with Russia, which provides more than three-quarter of India’s military equipment, and a “comprehensive global strategic partnership” with the U.S. despite the United States Strategic

Framework for the Indo-Pacific, 2018, wishing that India sees the U.S. as its preferred partner on security issues.

- India's relationship with the U.S.-led Quadrilateral Security Dialogue (Quad), where the others are military allies, has rightly been cautious, as U.S. President Joe Biden sees China as a 'strategic competitor' rather than a 'strategic rival'. Realism dictates that India does not need to compromise on its strategic autonomy.

Diplomatic challenge

- The foreign policy challenge for India is really two sides of the China conundrum: defining engagement with its neighbour which is consolidating an expanding Belt and Road Initiative (BRI) while remaining involved with the strategic, security and technological concerns of the U.S. located across the vast Pacific Ocean.
- The U.S. 'Annual Report to Congress: Military and Security Developments Involving the People's Republic of China' cautions that U.S. aircraft carriers, symbols of the country's military hegemony, may not enjoy unquestioned dominance for much longer. Former President Barack Obama's military pivot to Asia failed to overawe China in the South China Sea and the costs of former President Donald Trump's trade tariffs were borne by American consumers and companies.
- In the financial sphere, there is the real possibility of the Chinese renminbi becoming a global reserve currency or e-yuan becoming the digital payments currency. China is the world's largest trading economy.
- It could soon become the world's largest economy — the Fortune Global 500 list of the world's largest companies by revenue for the first time contains more companies based in China, including Hong Kong, than in the U.S. The BRI countries are using the renminbi in financial transactions with China, and can be expected to use it in transactions with each other.
- Even the European Union, smarting under Mr. Trump's sanctions, created its own cross-border clearing mechanism for trade. China has stitched together an investment agreement with the EU and with most of Asia. Relative attractiveness will determine when the dollar goes the way of the sterling and the guilder. China, facing technological sanctions from the U.S., may well put in the hard work to make this happen soon.

Policy elements

- Some form of the EU's China policy of seeing the emerging superpower as a partner, competitor, and economic rival depending on the policy area in question is going to be the global norm. The EU's reaching out to China despite misgivings of the U.S. means the West has given up on containing the rise of China.
- This broad perspective is also reflected in India's participation in both the Shanghai Cooperation Organisation, led by Beijing and Moscow and designed to resist the spread of Western interests, and in the U.S.-led Quad, with its anti-China stance. Within the United Nations, India's interests have greater congruence with China's interests rather than the U.S.'s and the EU's; sharing the COVID-19 vaccine with other countries distinguishes India, and China, from the rest.
- The congruence between India and the U.S. lies in the U.S.'s declared strategic objective of promoting an integrated economic development model in the Indo-Pacific as a credible alternative to the BRI, but with a caveat.
- China opening new opportunities for countries in the Eurasian landmass means that ASEAN will not easily move out of the BRI infrastructure, digital, finance and trade linkages; Sri Lanka is a recent example. The China-led Asian Infrastructure Investment Bank has increased its membership to 100 countries.
- China is now the second-biggest financial contributor to the UN and has published more high-impact research papers than the U.S. did in 23 out of 30 "hot" research fields and enhancing its 'soft power' nearly to levels achieved by the U.S. earlier.

- Instead of an alternate development model, India should move the Quad towards supplementing the infrastructure push of the BRI in line with other strategic concerns in the region. For example, developing their scientific, technological capacity and digital economy, based on India's digital stack and financial resources of other Quad members, will resonate with Asia and Africa.

Policy evolution

- Another area where India can play a 'bridging role' is global governance whose principles, institutions and structures now have to accommodate other views for issue-based understandings. President Xi Jinping's "community with shared future for mankind", and Prime Minister Narendra Modi's "climate justice" and asking how long India will be excluded from the UN Security Council, challenge the frame of the liberal order without providing specific alternatives.
- With respect to digital data, the defining issue of the 21st century, India has recently expressed that there must be reciprocity in data sharing, and this is the kind of 'big idea' for sharing prosperity that will gain traction with other countries.
- India's recent policies are gaining influence at the expense of China and the West, and both know this trend will accelerate. The steps to a \$5 trillion economy, shift to indigenous capital military equipment, and a new Science, Technology and Innovation Policy underline impact, capacity and interests.
- ASEAN remains keen India re-join its trade pact to balance China. It is being recognised that India's software development prowess could shape a sustainable post-industrial state different to the U.S. and China model.
- As in the historical past, Asia is big enough for both Asian giants to have complementary roles, share prosperity and be independent of each other and of the West.

GS III

One-Person Company - Push for entrepreneurs

(Source: [The Hindu](http://TheHindu.com))

Context: In her Budget speech, Union Finance Minister Nirmala Sitharaman announced measures to ease norms on setting up one-person companies (OPCs). Ms. Sitharaman said the step — allowing OPCs to grow without any restrictions on paid-up capital and turnover — would directly benefit start-ups and innovators.

What is a one-person company?

- As the name suggests, a one-person company is a company that can be formed by just one person as a shareholder. These companies can be contrasted with private companies, which require a minimum of two members to get going. However, for all practical purposes, these are like private companies.
- It is not as if there was no scope for an individual with aspirations in business prior to the introduction of OPC as a concept. As an individual, a person could get into business through a sole proprietorship mode, and this is a path that is still available.

Why do we need such companies?

- A single-person company and sole proprietorship differ significantly in how they are perceived in the eyes of law. For the former, the person and the company are considered separate legal entities. In sole proprietorship, the owner and the business are considered the same.
- This has an important implication when it comes to the liability of the individual member or owner. In a one-person company, the sole owner's liability is limited to that person's investment. In a sole proprietorship set-up, however, the owner has unlimited liability as they are not considered different

legal entities. Some see Ms. Sitharaman's proposal as a move to encourage corporatisation of small businesses. It is useful for entrepreneurs to have this option while deciding to start a business.

Is this a new idea?

- No. Such a concept already exists in many countries. In India, the concept was introduced in the Companies Act of 2013. Its introduction was based on the suggestions of the J.J. Irani Committee Report on Company Law, which submitted its recommendations in 2005.
- Pointing out that there was a need for a framework for small enterprises, it said small companies would contribute significantly to the Indian economy, but because of their size, they could not be burdened with the same level of compliance requirements as large public-listed companies.
- The report, while talking about giving entrepreneurial instincts of the people an outlet in the age of information technology, said, "It would not be reasonable to expect that every entrepreneur who is capable of developing his ideas and participating in the marketplace should do it through an association of persons."
- While making a case for one-person companies, the committee also said, "Such an entity may be provided with a simpler regime through exemptions so that the single entrepreneur is not compelled to fritter away his time, energy and resources on procedural matters."
- The law on one-person companies that took shape, as a result, exempted such companies from many procedural requirements, and, in some cases, provided relaxations. For instance, such a company does not need to conduct an annual general meeting, which is a requirement for other companies. A one-person company also does not require signatures of both its company secretary and director on its annual returns. One is enough.
- There was, however, criticism that some rules governing a one-person company were restrictive in nature. This year's Union Budget has dealt with some of these concerns.

What has changed for these companies with the new measures in this year's Budget?

- One of the measures that the Finance Minister has announced in the Budget pertains to the removal of restrictions on paid-up capital and turnover. The 2014 rule, which stated that a one-person company would cease to have that status once its paid-up share capital exceeds ₹50 lakh or its average turnover for the preceding three years exceeds ₹2 crore, has been lifted.
- The proposals, the Minister said, also include, "reducing the residency limit for an Indian citizen to set up an OPC from 182 days to 120 days and also allow non-resident Indians (NRIs) to incorporate OPCs in India." Earlier, only an Indian citizen and an Indian resident could start a single-person company.
- These changes come alongside a proposal to increase the capital base and turnover threshold for companies that can be classified as 'small', which means they can enjoy easy compliance requirements a bit longer. The capital base limit has been increased from ₹50 lakh to ₹2 crore, and the turnover limit has been increased from ₹2 crore to ₹20 crore.

How many OPCs does India have?

- According to data compiled by the Monthly Information Bulletin on Corporate Sector, there were 34,235 one-person companies out of a total number of about 1.3 million active companies in India, as on December 31, 2020.
- The number of OPCs was 2,238 (out of a total of about 1 million companies) as on March 31, 2015. Data also show that more than half of the OPCs are in business services.



Government regulations and tech platforms

(Source: [The hindu](#))

Context: *The Centre has issued notice to Twitter after the micro-blogging site restored more than 250 accounts that had been suspended earlier on the government's 'legal demand'. The government wants the platform to comply with its earlier order of January 31 by which it was asked to block accounts and a controversial hashtag that spoke of an impending 'genocide' of farmers for allegedly promoting misinformation about the protests, adversely affecting public order. Twitter reinstated the accounts and tweets on its own and later refused to go back on the decision, contending that it found no violation of its policy.*

Are platforms required to comply with government requests?

- Cooperation between technology services companies and law enforcement agencies is now deemed a vital part of fighting cybercrime, and various other crimes that are committed using computer resources. These cover hacking, digital impersonation and theft of data.
- The potential of the Internet and its offshoots such as mail and messaging services and social media networks to disseminate potentially harmful content such as hate speech, rumours, inflammatory and provocative messages and child pornography, has led to law enforcement officials constantly seeking to curb the ill-effects of using the medium.
- Therefore, most nations have framed laws mandating cooperation by Internet service providers or web hosting service providers and other intermediaries to cooperate with law and order authorities in certain circumstances.

What does the law in India cover?

- In India, the Information Technology Act, 2000, as amended from time to time, governs all activities related to the use of computer resources.
- It covers all 'intermediaries' who play a role in the use of computer resources and electronic records.
- The term 'intermediaries' includes providers of telecom service, network service, Internet service and web hosting, besides search engines, online payment and auction sites, online marketplaces and cyber cafes.
- It includes any person who, on behalf of another, "receives, stores or transmits" any electronic record. Social media platforms would fall under this definition.

What are the Centre's powers vis-à-vis intermediaries?

- Section 69 of the Act confers on the Central and State governments the power to issue directions "to intercept, monitor or decrypt...any information generated, transmitted, received or stored in any computer resource".
- The grounds on which these powers may be exercised are: in the interest of the sovereignty or integrity of India, defence of India, security of the state, friendly relations with foreign states, public order, or for preventing incitement to the commission of any cognisable offence relating to these, or for investigating any offence.

How does the government block websites and networks?

- Section 69A, for similar reasons and grounds on which it can intercept or monitor information, enables the Centre to ask any agency of the government, or any intermediary, to block access to the public of any information generated, transmitted, received or stored or hosted on any computer resource.
- Any such request for blocking access must be based on reasons given in writing.
- Procedures and safeguards have been incorporated in the rules framed for the purpose.

What are the obligations of intermediaries under Indian law?



- Intermediaries are required to preserve and retain specified information in a manner and format prescribed by the Centre for a specified duration. Contravention of this provision may attract a prison term that may go up to three years, besides a fine.
- When a direction is given for monitoring, interception or decryption, the intermediary, and any person in charge of a computer resource, should extend technical assistance in the form of giving access or securing access to the resource involved, and must comply with the request to intercept or monitor or decrypt the information concerned.
- Failure to extend such assistance may entail a prison term of up to seven years, besides a fine. Failure to comply with a direction to block access to the public on a government's written request also attracts a prison term of up to seven years, besides a fine.
- The Act also empowers the government to collect and monitor data on traffic. When an authorised agency asks for technical assistance in this regard, the intermediary must comply with the request. Non-compliance may lead to a prison term of up to three years, besides a fine.

Is the liability of the intermediary absolute?

- No. Section 79 of the Act makes it clear that “an intermediary shall not be liable for any third-party information, data, or communication link made available or hosted by him”. This protects intermediaries such as Internet and data service providers and those hosting websites from being made liable for content that users may post or generate.
- However, the exemption from liability does not apply if there is evidence that the intermediary abetted or induced the commission of the unlawful act involved. Also, the provision casts a responsibility on intermediaries to remove the offensive content or block access to it upon getting “actual knowledge” of an unlawful act being committed using their resources, or as soon as it is brought to their notice.
- In *Shreya Singhal vs U.O.I* (2015), the Supreme Court read down the provision to mean that the intermediaries ought to act only “upon receiving actual knowledge that a court order has been passed, asking [them] to expeditiously remove or disable access to certain material”. This was because the court felt that intermediaries such as Google or Facebook may receive millions of requests, and it may not be possible for them to judge which of these were legitimate.
- The role of the intermediaries has been spelt out in separate rules framed for the purpose in 2011. In 2018, the Centre favoured coming up with fresh updates to the existing rules on intermediaries' responsibilities, but the draft courted controversy. This was because one of the proposed changes was that intermediaries should help identify originators of offensive content. This led to misgivings that this could aid privacy violations and online surveillance.
- Also, tech companies that use end-to-end encryption argued that they could not open a backdoor for identifying originators, as it would be a breach of promise to their subscribers.
- Other proposed changes, which have not been acted upon, include rules that intermediaries should deploy automated tools for proactively removing or disabling public access to unlawful information, and to have a 24x7 mechanism to deal with requisitions of law enforcement.

Can a 'bad bank' solve the growing NPA crisis?

(Source: [The Hindu](#))

Context: Finance Minister Nirmala Sitharaman in her Budget speech on Monday revived the idea of a 'bad bank' by stating that the Centre proposes to set up an asset reconstruction company to acquire bad loans from banks. While the problem of bad loans has been a perennial one in the Indian banking sector, the COVID-19 pandemic-triggered lockdown last year and the moratorium subsequently extended to borrowers by the Reserve Bank of India (RBI) have worsened the crisis. With banks expected to report even more bad loans this year, the idea of a 'bad bank' has gained particular significance.



What is a 'bad bank'?

- A bad bank is a financial entity set up to buy non-performing assets (NPAs), or bad loans, from banks. The aim of setting up a bad bank is to help ease the burden on banks by taking bad loans off their balance sheets and get them to lend again to customers without constraints.
- After the purchase of a bad loan from a bank, the bad bank may later try to restructure and sell the NPA to investors who might be interested in purchasing it.
- A bad bank makes a profit in its operations if it manages to sell the loan at a price higher than what it paid to acquire the loan from a commercial bank.
- However, generating profits is usually not the primary purpose of a bad bank — the objective is to ease the burden on banks, holding a large pile of stressed assets, and to get them to lend more actively.

What is the extent of the crisis faced by banks?

- According to the latest figures released by the RBI, the total size of bad loans in the balance sheets of Indian banks at a gross level was just around ₹9 lakh crore as of March 31, 2020, down significantly from over ₹10 lakh crore two years ago.
- While the size of total bad loans held by banks has decreased over the last few years, analysts point out that it is mostly the result of larger write-offs rather than due to improved recovery of bad loans or a slowdown in the accumulation of fresh bad loans.
- The size of bad loan write-offs by banks has steadily increased since the RBI launched its asset quality review procedure in 2015, from around ₹70,000 crore in 2015-16 to nearly ₹2.4 lakh crore in 2019-20, while the size of fresh bad loans accumulated by banks increased last year to over ₹2 lakh crore from about ₹1.3 lakh crore in the previous year. So, the Indian banking sector's woes seem to be far from over.
- Further, due to the lockdown imposed last year, the proportion of banks' gross non-performing assets is expected to rise sharply from 7.5% of gross advances in September 2020 to at least 13.5% of gross advances in September 2021.

What are the pros and cons of setting up a bad bank?

- A supposed advantage in setting up a bad bank, it is argued, is that it can help consolidate all bad loans of banks under a single exclusive entity. The idea of a bad bank has been tried out in countries such as the United States, Germany, Japan and others in the past.
- The troubled asset relief program, also known as TARP, implemented by the U.S. Treasury in the aftermath of the 2008 financial crisis, was modelled around the idea of a bad bank. Under the program, the U.S. Treasury bought troubled assets, such as mortgage-backed securities, from U.S. banks at the peak of the crisis, and later resold them when market conditions improved. According to reports, it is estimated that the Treasury through its operations earned nominal profits.
- Many critics, however, have pointed to several problems with the idea of a bad bank to deal with bad loans. Former RBI governor Raghuram Rajan has been one of the critics, arguing that a bad bank backed by the government will merely shift bad assets from the hands of public sector banks, which are owned by the government, to the hands of a bad bank, which is again owned by the government.
- There is little reason to believe that a mere transfer of assets from one pocket of the government to another will lead to a successful resolution of these bad debts, when the set of incentives facing these entities is essentially the same.
- Other analysts believe that unlike a bad bank set up by the private sector, a bad bank backed by the government is likely to pay too much for stressed assets. While this may be good news for public sector banks, which have been reluctant to incur losses by selling off their bad loans at cheap prices, it is bad news for taxpayers, who will once again have to foot the bill for bailing out troubled banks.

Will a 'bad bank' help ease the bad loan crisis?

- A key reason behind the bad loan crisis in public sector banks, some critics point out, is the nature of their ownership. Unlike private banks, which are owned by individuals who have strong financial

incentives to manage them well, public sector banks are managed by bureaucrats who may often not have the same commitment to ensuring these lenders' profitability. To that extent, bailing out banks through a bad bank does not really address the root problem of the bad loan crisis.

- Further, there is a huge risk of moral hazard. Commercial banks that are bailed out by a bad bank are likely to have little reason to mend their ways. After all, the safety net provided by a bad bank gives these banks more reason to lend recklessly, and thus, further exacerbate the bad loan crisis.

Will it help revive credit flow in the economy?

- Some experts believe that by taking bad loans off the books of troubled banks, a bad bank can help free capital of over ₹5 lakh crore that is locked in by banks as provisions against these bad loans. This, they say, will give banks the freedom to use the freed-up capital to extend more loans to their customers.
- This gives the impression that banks have unused funds lying in their balance sheets that they could use if only they could get rid of their bad loans. It is, however, important not to mistake banks' reserve requirements for their capital position. This is because what may be stopping banks from lending more aggressively may not be the lack of sufficient reserves, which banks need to maintain against their loans.
- Instead, it may simply be the precarious capital position that many public sector banks find themselves in at the moment. In fact, many public sector banks may be considered to be technically insolvent as an accurate recognition of the true scale of their bad loans would show their liabilities as far exceeding their assets.
- So, a bad bank, in reality, could help improve bank lending not by shoring up bank reserves, but by improving banks' capital buffers.
- To the extent that a new bad bank set up by the government can improve banks' capital buffers by freeing up capital, it could help banks feel more confident to start lending again.

Internet shutdowns

(Source: [The Hindu](#))

Context: *The movement led by farmers against the Central government's agricultural laws has become a part of our national and international discourse. Keeping aside the merits and demerits of the contentious legislation, the manner in which the Centre introduced the Bills and its actions towards countering the movement have raised plenty of concerns. A principal concern among these has been the recurrent shutdowns, ordered by the Ministry of Home Affairs, of Internet services around many border areas of NCR since the unruly incidents on January 26. Unfortunately, these blockages are not new.*

Details:

- India shuts down Internet services more than any other democracy in the world. The past four years have seen over 400 such shutdowns. Many parts of Jammu and Kashmir saw a partial restoration of digital services after a long period of 223 days — the longest Internet shutdown across the world — since the abrogation of Article 370 in the erstwhile State.
- Many, including UN rights groups, termed these shutdowns a form of collective punishment for people, and an overreach of governments on citizens' rights and liberties.
- Currently, Indian laws have vague provisions for suspending telecommunication services, including the Internet, during times of public emergencies, or, if required, for protecting 'public interest'. Meanwhile, the Supreme Court had declared in January 2020 that the right to access the Internet is one of our fundamental rights, alongside the freedom to carry on any trade, business or occupation over the medium of Internet, under Article 19 of the Constitution
- The impact of shutdowns becomes even more pronounced during a pandemic. During the COVID-19 outbreak, the ones with good connectivity and know-how of digital tools were able to carry on with their

lives with relatively fewer disruptions. Meanwhile, the ones without digital literacy or connectivity found themselves completely left out of all social and economic systems.

- Blanket bans on digital connectivity during the COVID-19 crisis may breed deep-rooted societal difficulties. The most vulnerable among us may be cut off from health and welfare alerts; there could be breaks in vital digital services, including those currently being used by hospitals to monitor the well-being of their patients at risk of infection, including the elderly, and pregnant women; students may lose access to avenues of learning as classes shift online; journalists may find it impossible to do ground-reporting from already volatile areas.

Massive losses

- Today, almost all white-collar employment sectors, including IT, financial and consulting services, are encouraging their employees to work from home. Internet shutdowns will freeze economic activity in affected areas and cause large-scale disruptions in economic output.
- India is estimated to have lost over ₹20,000 crore in 2020 because of Internet shutdowns. Despite the costs and inconveniences involved, the shutdowns, on very rare occasions, do become necessary evils. However, it is hard to classify the ones initiated by the Central government in recent years under those categories.
- Internet bans should be a last resort and must be enforced following well-formulated protocols. Emergency response and relief systems for the vulnerable have to then work in parallel. Upgrading cyber divisions of law enforcement agencies with new-age innovations may offer several alternatives. The use of some of these technologies, including mass surveillance systems and communication interceptors, also presents its own ethical dilemmas.
- As the pace of globalisation, digitisation and connectivity accelerates, balancing civil liberties with security concerns will become an increasingly difficult task.
- Governments, especially in democracies, will have to create modern, independent institutions that have the authority and expertise to create frameworks that meet these challenges, without falling back on measures that result in state overreach.

Disaster Management: Flash floods

(Source: [Indian Express](#))

Context: *Recent flash flood incident in Uttarakhand is another warning of the dangers that a Himalayan state like Uttarakhand faces from natural processes like landslides, snow avalanches cloudbursts or lake bursts. As we saw in 2013 in the same state, such processes can trigger much bigger disasters and cause massive destruction. But it is possible to work towards minimising the threat of such incidents and reduce their impact.*

Increasing glacial lakes

- Glaciers are the largest source of freshwater outside of the polar regions. Glaciers and snow melt in the Himalayan ecosystem are the source of water for several rivers across the subcontinent, and are responsible for maintaining the perennial supply of water in the river systems like the Indus, Ganges, and Brahmaputra to over a billion people.
- But these glaciers have reduced considerably in mass and surface area since the little ice age period. Global temperatures began to rise after 1850. They have climbed more rapidly in the 20th century as greenhouse gas levels soared. The rise has been even steeper since the early 1980s.
- Some models predict that an increase in global temperatures by 2°C from 1850 by 2070 would result in 45% of the medium and large glaciers (10 sq km or more) disappearing completely. Nearly 70% smaller glaciers are likely to melt away. Shrinking glaciers have led to the formation of a large number of glacial

lakes all across the Himalayas. Many of these high-altitude lakes are potentially dangerous, because of their potential to cause flash floods in the event of a breach.

- As pointed out in this newspaper as well, there has been an increase in the number of such lakes in the last few decades because of an acceleration in the glacial melt. A 2005 study by Kathmandu-based ICIMOD (International Centre for Integrated Mountain Development) had listed 127 such lakes in Uttarakhand. More recent studies put the number of such lakes in the state at around 400. To glaciologists, this does not come as a surprise, but it is certainly a cause for concern.

Monitoring

- The first step in tackling the threat from these glacial lakes is to start monitoring them and the glaciers more actively and regularly. We do not need to monitor every glacier. Glaciers in one basin do not have remarkably different properties. If we identify one or two benchmark glaciers in every basin, those that are more easily accessible, and do detailed studies, then the results can be extrapolated to the rest of the glaciers in the basin or the state.
- But relying only on satellites and remote sensing is not going to be enough. It is important to get people and measuring instruments on the ground. That is why accessibility becomes an important factor. But we need to very closely measure the bathymetric changes, the mechanisms of expansion, changes in water levels, discharge balance, mass balance, and other attributes. It requires a lot of manpower and money, but we must be able to invest these resources.
- A dataset that tracks the progressive changes is crucial for any decision making. Some amount of monitoring is already happening but it is dispersed. What is required is a consolidated state of glaciers in India, with the ability to zoom in on any of them and track the changes happening year by year.
- It is suggested that the government of Uttarakhand itself takes a lead in this effort, and not be entirely dependent on outside agencies for monitoring or data. Afterall, Uttarakhand is the most vulnerable to natural disasters like these, and it must build capacities to reduce the risk.



Planning

- Construction-related activities in the state might not have a direct link to Sunday's incident, but these are not entirely benign.
- The Himalayas are very young mountain systems, and extremely fragile. A minor change in orientation of the rocks can be enough to trigger landslides. It is important to include glaciers in any environment impact assessment for major projects such as construction of dams.
- The entire catchment areas should be made part of the impact assessment. In fact, project owners must be asked to invest in such studies. After all, their own assets are also at stake.

Mitigation

- If we monitor the glaciers regularly, it would enable us to identify the lakes that need mitigation solutions. Several structural and geotechnical measures can be applied, and there are successful examples where the threat from these lakes have been reduced.
- It is possible to construct channels for gradual and regulated discharge of water from these lakes, which will reduce the pressure on them, and minimise the chances of a breach. At the same time, it also reduces the volume of water that goes into the flash flood.
- Also, alarm systems can be set up at the lakes, that will warn the community downstream whenever an overflow happens. A preparatory response drill will also have to be worked out, like we have done for cyclones and tsunami.

Disinformation as a cybersecurity threat

(Source: [The Hindu](#))

Context: *Cybersecurity focuses on protecting and defending computer systems, networks, and our digital lives from disruption. Nefarious actors use attacks to compromise confidentiality, the integrity and the availability of IT systems for their benefit. Disinformation is, similarly, an attack and compromise of our cognitive being. Nation-state actors, ideological believers, violent extremists, and economically motivated enterprises manipulate the information ecosystem to create social discord, increase polarisation, and in some cases, influence the outcome of an election.*

Details:

- There is a lot of similarity in the strategies, tactics and actions between cybersecurity and disinformation attacks.
- Cyberattacks are aimed at computer infrastructure while disinformation exploits our inherent cognitive biases and logical fallacies. Cybersecurity attacks are executed using malware, viruses, trojans, botnets, and social engineering.
- Disinformation attacks use manipulated, miscontextualised, misappropriated information, deep fakes, and cheap fakes. Nefarious actors use both attacks in concert to create more havoc.
- Historically, the industry has treated these attacks independently, deployed different countermeasures, and even have separate teams working in silos to protect and defend against these attacks. The lack of coordination between teams leaves a huge gap that is exploited by malicious actors.

Cognitive hacking

- Cognitive hacking is a threat from disinformation and computational propaganda. This attack exploits psychological vulnerabilities, perpetuates biases, and eventually compromises logical and critical thinking, giving rise to cognitive dissonance.
- A cognitive hacking attack attempts to change the target audience's thoughts and actions, galvanise societies and disrupt harmony using disinformation. It exploits cognitive biases and shapes people by perpetuating their prejudices. The goal is to manipulate the way people perceive reality. The storming of the U.S. Capitol by right-wing groups on January 6, 2021, is a prime example of the effects of cognitive hacking.
- The implications of cognitive hacking are more devastating than cyberattacks on critical infrastructure. The damage wrought by disinformation is challenging to repair. Revolutions throughout history have used cognitive hacking techniques to a significant effect to overthrow governments and change society. It is a key tactic to achieve major goals with limited means.
- For example, QAnon spread false information claiming that the U.S. 2020 presidential election was fraudulent, and conspiracy theorists (in the United Kingdom, the Netherlands, Ireland, Cyprus and Belgium) burned down 5G towers because they believed it caused the novel coronavirus pandemic. COVID-19 disinformation campaigns have prevented people from wearing masks, using potentially dangerous alternative cures, and not getting vaccinated, making it even more challenging to contain the virus.

Spreading disinformation

- Distributed Denial-of-Service (DDoS) is a well-coordinated cybersecurity attack achieved by flooding IT networks with superfluous requests to connect and overload the system to prevent legitimate requests being fulfilled. Similarly, a well-coordinated disinformation campaign fills broadcast and social channels with so much false information and noise, thus taking out the system's oxygen and drowning the truth.

- The advertisement-centric business modes and attention economy incentivise malicious actors to run a sophisticated disinformation campaign and fill the information channels with noise to drown the truth with unprecedented speed and scale.
- Disinformation is used for social engineering threats on a mass scale. Like phishing attacks, to compromise IT systems for data extraction, disinformation campaigns play on emotions, giving cybercriminals another feasible method for scams.
- A report released by Neustar International Security Council (NISC) found 48% of cybersecurity professionals regard disinformation as threats, and of the remainder, 49% say that threat is very significant; 91% of the cybersecurity professionals surveyed called for stricter measures on the Internet.
- Deep fakes add a whole new level of danger to disinformation campaigns. A few quality and highly targeted disinformation campaigns using deepfakes could widen the divides between peoples in democracies even more and cause unimaginable levels of chaos, with increased levels of violence, damage to property and lives.

Lessons from cybersecurity

- Cybersecurity experts have successfully understood and managed the threats posed by viruses, malware, and hackers. IT and Internet systems builders did not think of security till the first set of malicious actors began exploiting security vulnerabilities.
- The industry learned quickly and invested profoundly in security best practices, making cybersecurity a first design principle. It developed rigorous security frameworks, guidelines, standards, and best practices such as defense-in-depth, threat modelling, secure development lifecycle, and red-team-blue-team (self-attack to find vulnerabilities to fix them) to build cybersecurity resilience.
- ISACs (Information sharing and analysis centers) and global knowledge base of security bugs, vulnerabilities, threats, adversarial tactics, and techniques are published to improve the security posture of IT systems.
- We can learn from decades of experience in the cybersecurity domain to defend, protect and respond, and find effective and practical solutions to counter and intervene in computational propaganda and infodemics.
- We can develop disinformation defence systems by studying strategy and tactics to understand the identities of malicious actors, their activities, and behaviours from the cybersecurity domain to mitigate disinformation threats. By treating disinformation as a cybersecurity threat we can find effective countermeasures to cognitive hacking.
- Defense-in-depth is an information assurance strategy that provides multiple, redundant defensive measures if a security control fails. For example, security firewalls are the first line of defence to fend off threats from external systems. Antivirus systems defend against attacks that got through the firewalls.
- Regular patching helps eliminate any vulnerabilities from the systems. Smart identity protections and education are essential so that users do not fall victim to social engineering attempts.
- We need a defense-in-depth strategy for disinformation. The defense-in-depth model identifies disinformation actors and removes them. Authenticity and provenance solutions can intervene before disinformation gets posted. If the disinformation still gets by, detection solutions using humans and artificial intelligence, internal and external fact-checking can label or remove the content.
- Today, the response to disinformation is in silos of each platform with little or no coordination. There is no consistent taxonomy, definitions, policy, norms, and response for disinformation campaigns and actors.
- This inconsistency enables perpetrators to push the boundaries and move around on platforms to achieve their nefarious goals. A mechanism like ISACs to share the identity, content, context, actions, and behaviours of actors and disinformation across platforms is needed. Information sharing will help disinformation countermeasures to scale better and respond quickly.

Education is key



- A critical component of cybersecurity is education. Technology industry, civil society and the government should coordinate to make users aware of cyber threat vectors such as phishing, viruses, and malware.
- The industry with public-private partnerships must also invest in media literacy efforts to reach out to discerning public. Intervention with media education can make a big difference in understanding context, motivations, and challenging disinformation to reduce damage.
- The freedom of speech and the freedom of expression are protected rights in most democracies. Balancing the rights of speech with the dangers of disinformation is a challenge for policymakers and regulators.
- There are laws and regulations for cybersecurity criminals. More than 1,000 entities have signed the Paris Call for Trust and Security in Cyberspace, for stability and security in the information space. Similarly, 52 countries and international bodies have signed the Christchurch Call to Action to eliminate terrorist and violent extremist content online.
- The disinformation infodemic requires a concerted and coordinated effort by governments, businesses, non-governmental organisations, and other entities to create standards and implement defences.
- Taking advantage of the frameworks, norms, and tactics that we have already created for cybersecurity is the optimum way to meet this threat. We must protect our society against these threats or face the real possibility of societal breakdown, business interruption, and violence in the streets.

Current Affairs Quiz

1. Which of the following statements is/are correct regarding Square Kilometre Array Observatory (SKAO) project?

1. Square Kilometre Array Observatory (SKAO) project will be the world's largest radio telescope, once completed.
2. It aims to study the origin and evolution of cosmic magnetism, and dark energy and evolution of galaxies.
3. India is participating in SKAO through the Department of Atomic Energy (DAE) and the Department of Science and Technology (DST).

Select the correct answer code:

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) All of the above

Answer: d)

2. Which of the following statement(s) is/are correct regarding Government securities, or G-secs?

1. Government securities are debt instruments issued by the government to borrow money.
2. Treasury bills are long-term instruments, which mature anywhere between 5 years and 40 years.
3. Dated securities are short-term instruments which mature in less than 365 days.
4. Like bank fixed deposits, g-secs are not tax-free.

Select the correct answer code:

- a) 1, 3 and 4 only
- b) 1 and 4 only
- c) 1, 2 and 4 only
- d) All of the above

Answer: b)

- The Reserve Bank of India (RBI) recently said that it will give small investors direct access to its government securities trading platform.
- G-Secs are debt instruments issued by the government to borrow money. The two key categories are treasury bills – short-term instruments which mature in 91 days, 182 days, or 364 days, and dated securities – long-term instruments, which mature anywhere between 5 years and 40 years.

3. Which of the following statement(s) is/are incorrect with respect to *Flag Code of India*?

1. It states that National flag can be used as a drapery in any form only in State funerals or armed forces or other para-military forces funerals.
2. Only central government can accord the status of a state funeral in case of death of a person.

Select the correct answer

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : b

- The status of a state funeral can be accorded in case of death of people not belonging to the above-mentioned categories by state government.

4. Which of the following recently released Democracy Index 2020?

- a. World Economic Forum (WEF)
- b. International Monetary Fund (IMF)
- c. Economic Intelligence Unit (EIU)
- d. Reporters without Borders

Answer : c

5. Which of the following statement(s) is/are incorrect with respect to Einsteinium?

1. It was discovered in the debris of the first atomic bomb “Little Boy” that was dropped over the city of Hiroshima, Japan.
2. It is a naturally occurring element which has radioactive properties.

Select the correct answer code:

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

- It needs to be manufactured using very precise and intense processes.
- The element has been produced in very small quantities and its usage is limited except for the purposes of scientific research.
- It was discovered in 1952 in the debris of the first hydrogen bomb (the detonation of a thermonuclear device called “Ivy Mike” in the Pacific Ocean).
- It produced an explosion that was about 500 times more destructive than the explosion that occurred at Nagasaki.

6. Consider the following statements with respect to Nord Stream 2 Pipeline:

1. It is a 1,200 km gas pipeline which will run from Ust-Luga in Russia to Greifswald in Germany.
2. It will stretch across three different seas namely Black Sea, Caspian Sea and Mediterranean Sea.

Which of the statements given above is/are correct?

- a. 1 Only
- b. 2 Only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

- The pipeline will stretch across the Baltic Sea.

7. Consider the following statements with respect to GDP of India:

1. India is the third largest economy in terms of GDP.
2. India is the fifth largest in terms of GDP at Purchasing Power Parity (PPP).

Which of the statement(s) given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : d

- India is currently the fifth largest economy in terms of GDP.
- India is the third largest in terms of GDP at Purchasing Power Parity (PPP).

8. Consider the following statements with respect to Pradhan Mantri Jan Arogya Yojana (PM-JAY):

1. The scheme is being implemented all over India across all states and Union Territories (UTs).
2. The scheme places no cap on age and gender, or size of a family and is portable across the country.
3. The scheme provides for healthcare of up to 5 lakh per family per year, which can be used by one or all members of the family.

Which of the statement(s) given above is/are correct?

- a. 3 only
- b. 1 and 2 only
- c. 2 and 3 only
- d. None of the above

Answer : c

- So far, 32 states and UTs have implemented the scheme and treatment worth Rs 7,490 crore has been provided.

9. Which of the following statement(s) is/are correct about Trans fat?

1. Trans fat are saturated fatty acids that come from either natural or industrial sources.
2. It is industrially produced by adding hydrogen to vegetable oil converting the liquid into a solid, resulting in “partially hydrogenated” oil (PHO).
3. FSSAI has notified that Trans fat in oil and fats to be limited to 3% in all fats and oils by 2021 and 2 % by January 2022.

Select the correct answer code:

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. All of the above

Answer : b

- Trans fat, or trans-fatty acids, are unsaturated fatty acids that come from either natural or industrial sources.

10. Which of the following statement(s) is/are correct about Information Technology Act, 2000?

1. The act covers all intermediaries who play a role in the use of computer resources and electronic records.
2. It confers on the Central and State governments the power to issue directions to decrypt information in any computer resource based on prescribed grounds.

Select the correct answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

11. Which of the following statement(s) is/are correct about UAE’s Hope Mission?

1. UAE has become the 5th country to reach Martian orbit.
2. Its primary objective is to look for signs of past microbial life, cache rock and soil samples, and prepare for future human exploration.

Select the correct answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

- Its objective is to collect data on Martian climate dynamics and help scientists understand why Mars’s atmosphere is decaying into space.

12. Which of the following statement(s) is/are correct about Vigyan Jyoti programme?

1. It is an initiative by the Department of Science and Technology.



2. It is to encourage girls to take interest in Science, Technology, Engineering and Mathematics (STEM).

Select the correct answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

13. Consider the following statements in the context of recent Glacial Lake Outburst at Uttarakhand:

- 1. Glacial Lake Outburst Floods(GLOFs) refers to the flooding that occurs when the water dammed by a glacier or a moraine is released suddenly.
- 2. The Topography of Hindu Kush Himalayas does not favour the formation of glacial lakes.
- 3. Synthetic-Aperture Radar imagery can detect changes in water bodies, including new lake formations.

Which of the above statements is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Answer: c)

- According to NDMA, glacial retreat due to climate change occurring in most parts of the Hindu Kush Himalaya has given rise to the formation of numerous new glacial lakes, which are the major cause of GLOFs.

14. Consider the following missions:

- 1. China's Tianwen-1
 - 2. UAE's Hope mission
 - 3. Chang'e-4 mission
 - 4. NASA's Perseverance rover mission
- Which of the following space missions are related to the planet Mars?

- a) 1, 2 and 4 only
- b) 1, 2 and 3 only
- c) 2 and 4 only
- d) All of the above

Answer: a)

Chang'e-4 is China's first probe ever to achieve soft-landing on the far side of the Moon.

15. Which of the following statement(s) is/are correct regarding Pangong Tso Lake?

- 1. Pangong Tso Lake is an endorheic lake in the Himalayas.
- 2. It is part of the Indus river basin area.
- 3. It is under the Ramsar Convention as a wetland of international importance.

Select the correct answer code:

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 2 and 3 only

Answer: a)

- During winter the lake freezes completely, despite being saline water. It has a **land-locked basin separated from the Indus River basin** by a small elevated ridge, but is believed to have been part of the latter in prehistoric times.



- The lake is in the **process of being identified under the Ramsar Convention** as a wetland of international importance. This will be the first trans-boundary wetland in South Asia under the convention.

16. Which of the following committees had proposed privatisation of PSU banks in past?

1. Narasimham Committee
2. Naresh Chandra Committee
3. P J Nayak Committee

Select the correct answer code:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Answer: c)

17. Which of the following statement(s) is/are incorrect with respect to Garib Kalyan Rojgar Abhiyaan (GKRA)?

1. It is a 125-day programme implemented all over India, mainly focusing on 25 works.
2. It aims to provide livelihood employment to the returnee migrant workers and similarly affected rural population by Covid-19 pandemic.

Select the answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

- It focuses on 25 works in 116 selected districts across 6 States with a resource envelope of Rs 50,000 crore.
- There are 6 states included in this campaign: Bihar, Rajasthan, Uttar Pradesh, Madhya Pradesh, Jharkhand, and Odisha.

18. Which of the following statement(s) is/are correct with respect to Taxpayer's Charter?

1. It was introduced as a part of Vivad se Vishwas Scheme launched by the Government of India.
2. Under the Charter, the Income Tax Department shall allow every taxpayer to choose an authorized representative of his/her choice.

Select the correct answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : b

- Taxpayer Charter was introduced by the Government of India as a part of the 'Honoring the Honest' platform.

19. Consider the following statements with respect to State Disaster Response Fund (SDRF):

1. It is the primary fund available with State Governments for responses to notified disasters, constituted under the Disaster Management Act, 2005.
2. The Central Government contributes 60% of SDRF allocation for general category States/UTs and 90% for special category States/UTs.
3. A State Government may use up to 10% of the SDRF for disasters within the local context in the State.

Which of the statements given above are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Answer : b

- The Central Government contributes 75% of SDRF allocation for general category States/UTs and 90% for special category States/UTs (NE States, Sikkim, Uttarakhand, Himachal Pradesh, Jammu and Kashmir).

20. The Twin Economic Shocks mentioned in the recent Economic survey refers to which of the following?

- 1. Inflation Shock
- 2. Employment Shock
- 3. Demography Shock
- 4. Gross Value Added (GVA) Shock

Select the correct answer using the codes given below:

- a. 1 and 2 only
- b. 2 and 3 only
- c. 2 and 4 only
- d. 3 and 4 only

Answer : c

- According to the Economic Survey, 2020-21, the spread and intensity of COVID-19 induced twin economic shocks. The shocks can be broadly captured through impact on ***output/Gross Value Added (GVA) and employment***.