

Current Affairs From 01st May to 12th May

GS-1

May Day:

As for May Day in India, the country witnessed the first celebration of Labour Day in 1923 in what was then Madras.

History:

- May 1 is a metonym for International Workers Day, a day of celebration of the working class. Behind it lies a history dating back over one-and-a-half centuries.
- The roots of May 1 can be traced to the second part of the 19th century when there were revolutions, and organisations behind which industrial workers rallied. Countries including Germany, France, England, the US saw demand for reducing work time from 12-15 hours a day to eight hours.
- The Communist Manifesto written by Karl Marx and Engels in 1848 had a great impact on workers across various countries that were feeling the heat of industrialisation.
- Crop failure in the 1840s led to widespread anti-feudal upheavals called 'The Revolutions of 1848'. As a result the International Workingmen's Association, known as the First International, was born in 1864 as an umbrella association for all socialist and communist organisations, at a workers' congregation in London.
- After the First International dissolved in 1876 over an ideological rift, the Second International emerged in 1889 as a united outfit of socialist and [labour](#) parties. It was this organisation that declared May 1 as International Workers' Day and March 8 as International Women's Day.

Origin:

- Historically, an event is referred to as the origin of May 1 as Workers' Day -- the Haymarket Affair or the Haymarket massacre.
- When labourers assembled at the Haymarket Square in Chicago on May 4, 1886 and took out a rally for eight-hour

work day, a bombing attack was mounted on them by some unknown forces.

- Police firing and loss of 11 lives were reported at the rally that ended in riot.

May day in India:

- As for May Day in India, the country witnessed the first celebration of Labour Day in 1923 in what was then Madras.
- Led by Singaravelar, leader of the Labour Kisan Party of Hindustan, two meetings were held, one at Triplicane Beach and one near the Madras High Court.
- It was at these meetings that a resolution was passed urging the British government to declare May 1 as Labour Day and also a government holiday.
- It was the first occasion in India on which the red flag was used.

Other Aspects:

- There is another aspect to the popular phrase May Day. It has ancient roots in several countries.
- The better known is the Festival of Flora in the old Rome which was billed as May celebration.
- Flora was the goddess of flowers, and the festival was marked by song, dance and theatrical performance.
- Another May Day celebration was in praise of Dionysus and Aphrodite, the Greek gods of grape harvest and love respectively.
- There is also 'Mayday', which is a distress call made by ships and aircraft.
- What is the connection between May Day and Mayday?
Nothing. For, Mayday is an anglicised version of the French 'm'aidez' meaning "help me."

Cyclonic Storm "FANI"

Why in News?

Yesterday's **cyclonic storm 'FANI'** (pronounced as '**FONI**') over southeast Bay of Bengal (BoB) & neighbourhood moved nearly

northwards and intensified into **severe cyclonic storm** in the same evening.

Continuing to move nearly northwards, it intensified further into **very severe cyclonic storm** over southeast and adjoining southwest BoB in the early morning.

It is very likely to intensify further into an **extremely severe cyclonic storm** during next 12 hours.

Classification of Cyclones:

The IMD ranks cyclones on a 5-point scale with the mildest at 62-88 kmph and the strongest, a 'super cyclonic storm', at 221 kmph).

- Cyclonic Storm : Intense low pressure system in which the wind speed on surface level is in between 34 – 47 Kts.
- Severe Cyclonic Storm: Intense low pressure system in which the wind speed on surface level is in between 48 – 63 Kts.
- Very Severe Cyclonic Storm : Intense low pressure system in which the wind speed on surface level is in between 64 – 119 Kts.
- Super cyclonic storm: Intense low pressure system in which the wind speed on surface level is 120Kts. and above.

About Cyclones in India:

- Cyclonic storm Fani, which is lying about 600 km east of Vishakapatnam and 800 km south of Puri, is the first severe, cyclonic storm to have formed in April in India's oceanic neighbourhood since 1976, according to records from the India Meteorological Department (IMD).
- While severe [cyclones](#) (defined as generating maximum windspeeds of 89-117 kmph) can form any time, they tend to be concentrated in November — after the monsoon — or around May, when the monsoon prepares to arrive in Kerala in June.

- The head of IMD told The Hindu that such quirks were a consequence of global warming.
- This is a cyclone that's forming due to the warming of the Bay of Bengal basin...with global warming we have to be prepared for such occurrences and take precaution accordingly.
- From 1965-2017, the Bay of Bengal and Arabian sea have collectively registered 46 'severe cyclonic storms.'
- As many as 28 of them were from October-December. Seven of them have been in May and only two — in 1966 and 1976 — were recorded in April, data from the IMD's cyclone-statistics unit shows.
- Tropical cyclones in the Indian neighbourhood begin as 'depressions' or a gradual build-up of warm air and pockets of low pressure.
- About 35% of such formations intensify to 'cyclones' and only 7% intensify to 'very severe cyclones'.
- About 20-30 severe tropical storms occur around the world every year.

Masood Azhar and UNSC:

Why in News?

A decision on whether Pakistan-based Jaish-e-Mohammed chief Masood Azhar will be listed as a global terrorist by the United Nations will be known on May 1 as the world body's Sanctions Committee holds a crucial meeting, [amid indications that China could lift its hold](#) on the proposal to blacklist Azhar.

China's Role:

- Beijing said on April 30 that the vexed issue of designating Azhar as a global terrorist by the U.N. will be "properly resolved".
- China had put a hold in March on a fresh proposal by the U.S., U.K. and France to impose a ban on the chief of the JeM which claimed responsibility for the Pulwama terror attack.
- The proposal was the fourth such bid at the U.N. in the last 10 years to list Azhar as a global terrorist.

India's Concern:

- In 2009, India had moved a proposal by itself to designate Azhar a terrorist. Again, in 2016 India moved the proposal with the P3 — the United States, the United Kingdom and France — in the U.N.'s 1267 Sanctions Committee to ban Azhar, also the mastermind of the attack on the air base in Pathankot in January 2016.
- In 2017, the P3 nations moved a similar proposal again.

However, on all occasions China, a veto-wielding permanent member of the Security Council, blocked India's proposal from being adopted by the Sanctions Committee.

Background:

- Keeping up the international pressure to designate Azhar as a global terrorist, the U.S., supported by France and the U.K., moved a draft resolution directly in the U.N. Security Council to blacklist the Pakistan-based terror organisation's head.
- Though China can exercise its veto power as a permanent member of the UNSC, Beijing has staunchly opposed the issue to be taken to the apex U.N. body as it has to publicly explain its stand on its reservations to list Azhar, whose group JeM has already been designated as terror outfit by UN, before exercising its veto.

What will happen upon Listing?

- A UNSC designation will subject Azhar to an assets freeze, travel ban and an arms embargo.
- An assets freeze under the Sanctions Committee requires that all states freeze without delay the funds and other financial assets or economic resources of designated individuals and entities.
- The travel ban entails preventing the entry into or transit by all states through their territories by designated individuals.

Drug-resistant diseases:

Why in News?

Drug-resistant diseases could cause 10 million deaths each year by 2050, warned the UN Ad Hoc Interagency Coordinating Group on Antimicrobial Resistance in a report released on Monday.

It added that by 2030, antimicrobial resistance could force up to 24 million people into extreme poverty.

Statistics and observation:

- Currently, at least 7,00,000 people die each year due to drug-resistant diseases, including 2,30,000 people who die from multidrug-resistant tuberculosis.
- It also noted that more and more common diseases, including respiratory tract infections, sexually transmitted infections and urinary tract infections, are becoming untreatable; lifesaving medical procedures are becoming riskier, and food systems are getting increasingly precarious.
- "Antimicrobial resistance is one of the greatest threats we face as a global community. This report reflects the depth and scope of the response needed to curb its rise and protect a century of progress in [health](#)."
- The report noted that the world is already feeling the economic and health consequences as crucial medicines become ineffective.
- Without investment from countries in all income brackets, future generations will face the disastrous impacts of uncontrolled antimicrobial resistance.

Recommendations:

It has now recommended that countries:

- Prioritise national action plans to scale-up financing and capacity-building efforts.
- Put in place stronger regulatory systems and support awareness programs for responsible and prudent use of antimicrobials by professionals in human, animal and plant health and
- Invest in ambitious research and development for new technologies to combat antimicrobial resistance.

New Fossil Evidence:

Why in News?

Analysis of a fossil jawbone containing molars recovered from Baishiya Karst cave in Xiahe, Gansu, China shows Denisovans lived in the Tibetan Plateau some 1,60,000 years ago.

The first evidence for Denisovans or Denisova hominins was first discovered in 2008 in a cave in the Altai mountains in Siberia.

This is the first time evidence of Denisovan presence has been found outside the Denisova cave.

Details:

- The mandible was so well preserved that it allowed for a virtual reconstruction of the two sides of the mandible (in photo, with mirrored parts in grey).
- Contrary to popular belief that high altitude regions were inhabited only by modern humans dating back to less than 40,000 years, the fossil remains conclusively prove that Denisovans lived in the Tibetan Plateau at an altitude of 3,280 metres much earlier — 1,60,000 years ago.
- The Denisova cave in Siberia is at an altitude of just 700 metres.

Earlier Studies:

- Previous genetic studies have found that modern humans living in the Tibetan Plateau carried a special gene variant — EPAS1 (Endothelial PAS Domain Protein 1) — that allowed them to cope with low oxygen (hypoxia) environments typical of high altitude.
- This gene variant has been found in Denisovans.

- Since the Denisova cave is at an altitude of just 700 metres, it was not clear why and how the Denisovans possessed this adaptation.
- The discovery of a Denisovan sample in the Tibetan plateau at a high altitude provides the answer.

Gene mutation

- The possible explanation for the presence of this gene variant in the hominin is that Denisovans lived for a long time in the plateau leading to the gene mutation.
- This mutation has later been passed on to modern humans.

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Electoral Bond Scheme 2018

Why in News?

Government of India has now decided to restrict the next Phase of Electoral Bonds sale to 06.05.2019 to 10.05.2019 (instead of 06.05.2019 to 15.05.2019 scheduled and notified earlier).

What is it?

The Government of India has notified the Electoral Bond Scheme 2018 vide Gazette Notification No. 20 dated 02nd January 2018.

Who can buy it?

- As per provisions of the Scheme, Electoral Bonds may be purchased by a person (as defined in item No. 2 (d) of Gazette Notification), who is a citizen of India or incorporated or established in India. \
- A person being an individual can buy Electoral Bonds, either singly or jointly with other individuals.

- Only the Political Parties registered under Section 29A of the Representation of the People Act, 1951 (43 of 1951) and which secured not less than one per cent of the votes polled in the last General Election to the House of the People or the Legislative Assembly of the State, shall be eligible to receive the Electoral Bonds.
- The Electoral Bonds shall be encashed by an eligible Political Party only through a Bank account with the Authorized Bank.
- State Bank of India (SBI) has been authorized to issue and encash Electoral Bonds through its 29 Authorized Branches (as per list enclosed) in the month of May 2019.

Validity:

- The Electoral Bonds shall be valid for **fifteen calendar days** from the date of issue and no payment shall be made to any payee Political Party if the Electoral Bond is deposited after expiry of the validity period.
- The Electoral Bond deposited by an eligible Political Party in its account shall be credited on the same day.

Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Amendment Act of 2018

Why in News?

The [Supreme Court](#) on Wednesday reserved for judgment a batch of petitions challenging the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Amendment Act of 2018 which nullified a controversial March 20 Supreme Court judgment diluting the stringent provisions of the Dalit protection law.

A Bench of Justices Arun Mishra and U.U. Lalit heard arguments raised by the Centre that the amendments were necessary as the SCs and the STs continue to face the same social stigma, poverty and humiliation which they had been subjected to for centuries.

Background:

- The 2018 Act nullified the March 20 judgment which allowed anticipatory bail to those booked for committing atrocities against the SCs and the STs. The original 1989 Act bars anticipatory bail.

- The apex court verdict saw a huge backlash across the country.
- Several died in ensuing protests and crores worth of property was destroyed.
- The government reacted by filing a review petition and subsequently amended the 1989 Act back to its original form.

Govt. Response:

- The government had responded that there had been no decrease in the atrocities committed on the SCs/STs despite the laws meant to protect their civil rights.
- “The SC/ST (Prevention of Atrocities) Act of 1989 is the least which the country owes to this section... who have been denied civil rights since generations,” the Centre argued.

Salient features:

- It was enacted when the provisions of the existing laws (such as the Protection of Civil Rights Act 1955 and Indian Penal Code) were found to be inadequate to check these crimes (defined as 'atrocities' in the Act)
- Recognising the continuing gross indignities and offences against Scheduled Castes and Tribes, the Parliament passed the 'Scheduled Castes and Schedule Tribes (Prevention of Atrocities) Act 1989.
- The preamble of the Act also states that the Act is:

“to prevent the commission of offences of atrocities against the members of Scheduled Castes and Tribes, to provide for Special Courts for the trial of such offences and for the relief and rehabilitation of the victims of such offences and for matters connected therewith or incidental thereto.”

- Thus objectives of the Act clearly emphasise the intention of the government to deliver justice to these communities through proactive efforts to enable them to live in society with dignity and self-esteem and without fear or violence or suppression from the dominant castes.

- The practice of untouchability, in its overt and covert form was made a cognizable and non compoundable offence, and strict punishment is provided for any such offence.

[Ex- Varuna](#)

Why in News?

End of this month, India and France will hold anti-submarine warfare games off Djibouti coast near the Horn of Africa, as part of the 17th edition of the bilateral Varuna exercise series which is currently underway.

About the Exercise:

- The first part of the Indo-French joint naval exercise, Varuna 19.1, will be conducted off the Goa coast from May 1-10.
- The second part, Varuna 19.2, is scheduled to be held at the end of May in Djibouti.
- Under the Mutual Logistics Support Agreement (MLSA) signed as part of its foreign cooperation initiatives, the Indian Navy has sought access to the French base in Djibouti for refit and refuelling.
- However, as Djibouti is a sovereign country, its clearance is needed for Indian ships and the onus to get it is on France..
- Interestingly, several countries have bases in Djibouti, and China opened its first overseas base there last year.

Phase I will see the participation of INS Vikramaditya and French carrier FNS Charles de Gaulle and the two air wings, comprising Mi-29Ks and Rafale-M, will perform joint drills.

Focus Areas:

- Apart from carrier drills, other focus areas during the exercise are explosive detection, mine hunting and protection of offshore assets, a specific are of interest for France.
- The bilateral naval exercise was initiated in 1983 and was christened as 'Varuna' in 2001.
- Of late, submarine hunting has become a major area of focus for the Indian Navy in its military cooperation with major countries.

Military Expenditure Report:

Why in News?

Worldwide, military expenditure rose by 2.6% from 2017 to reach \$1.8 trillion in 2018, according to [SIPRI data](#).

Details:

- The U.S. registered a substantial rise in spending for the first time since 2010.
- India's spending rose by 3.1%, while Pakistan's military spending rose by 11%.
- The five biggest spenders were the U.S., China, Saudi Arabia, India and France. Saudi Arabia was third on the list despite spending 6.5% lesser than 2017.
- In 2018 the USA and China alone accounted for half of the world's military spending. The largest absolute increase in spending in 2018 was by the USA (\$27.8 billion), while the biggest decrease was by Saudi Arabia (-\$4.6 billion), according to the SIPRI report.

Per capita patterns

- Saudi Arabia's military spending as a percentage of its GDP was highest at 8.8%. It also spent the highest on military per capita.
- In India's case, the spending as a percentage of GDP is slightly above average (2.4%) while its per capita spending is below average (\$49).
- On average, world military spending in 2018 represented 2.1% of GDP and \$239 per person.
- According to the SIPRI report, six of the 10 countries with the highest military burden (military spending as a proportion of GDP) in the world in 2018 are in West Asia: Saudi Arabia, Oman, Kuwait, Lebanon, Jordan and Israel.

[Masood Azhar issue:](#)

Why in News?

After years of resistance to [listing Masood Azhar, founder of Pakistan-based terrorist group Jaish-e-Mohammed, as a global terrorist](#), China has finally changed its position.

Earlier attempts to add him to the United Nations blacklist, under the 1267 Committee, failed as Beijing put a hold on the process, saying the issue should be resolved through consultations.

Background:

- After the February 14 Pulwama attack, which killed at least 40 Indian security personnel, France, the United Kingdom and the United States co-sponsored a new listing application, which was also blocked by the Asian giant.
- However, when its hold expired, [China](#) raised no fresh opposition, leading to the listing of Azhar, which means there will be a travel ban, an arms embargo on him and freezing of his assets.

Why China Opposed?:

- The main reason for China's opposition to Azhar's terror designation was the [Pakistan](#) factor.
- Islamabad has robust economic and strategic ties with Beijing.
- China is also investing billions of dollars in Pakistan to build an ambitious economic corridor, connecting Kashgar in western China to Pakistan's Gwadar, a port city on the Arabian Sea.

So Why did China change its position now?

- First, both India and China have manifested their desire to deepen bilateral ties despite the structural problems they face.
- The shadows of the Doklam stand-off between India-China armies and Beijing's repeated hold on Azhar as well as its opposition to India's Nuclear Suppliers Group membership continued to impinge on bilateral ties.
- Still India preferred to stay engaged with China as the Wuhan summit suggested.

- Last year, it dropped its opposition to adding Pakistan to the Financial Action Task Force (FATF) grey list, which allowed the listing to go through smoothly.

The U.S. factor

- Second, the Azhar issue has cast shadows on China's commitment to fighting terrorism. Jaish, which Azhar leads, has been an internationally designated terrorist outfit.
- And its role in multiple terrorist attacks in India has been well established. China's continued hold on his listing had weakened internationally its position against terror. After all, China has its own terror problem.
- After it used its hold on Azhar following the Pulwama terror attack, the U.S. distributed a draft resolution at the U.N. Security Council (outside the 1267 Committee) to ban Azhar.
- If the resolution is put to vote, China would be left with an awkward choice — either to back it or use its precious veto power, further isolating itself among global peers.
- This appeared to have put China in a fix.

Compromise for India:

- The official listing talks about Azhar's ties with Jaish and al-Qaeda, but has no reference to his role in Kashmir violence.
- This was the compromise that India (or its allies at the UNSC) had to make to get Azhar listed.
- It allowed India to clinch a diplomatic victory, while China can say it changed its position not under any pressure but based on the "revised" listing request, and Pakistan can claim that the listing went through after "all the political references" were removed.

GS-3

National Financial Reporting Authority (NFRA)

What is it?

- The Union Cabinet approved the creation of a National Financial Reporting Authority (NFRA), a big step forward in regulating the financial audit of large companies.
- The NFRA is to be an independent regulator overseeing the auditing profession, and its creation was first recommended by the Standing Committee on Finance in its 21st report.

How did it come about?

- While many provisions of the Companies Act, 2013 came into force on April 1, 2014, the setting up of the NFRA, a key recommendation, was delayed.
- The decision appears to have been prompted by the latest bank scam to have hit the headlines — the ₹12,636 crore Punjab National Bank fraud that went undetected by auditors.
- The Institute of Chartered Accountants of India (ICAI) had initially voiced its discontent with the idea of a regulator for the sector, saying the existing structure was adequate.
- The government has clarified that the roles of the new regulator and those of the ICAI will not overlap.

Why does it matter?

- The government is quite clear that the need for such a body is all the more important after several financial accounting scams, the most recent of which was the Punjab National Bank scam.
- However, the idea for an NFRA came following the Satyam scam in 2009, following which the Standing Committee on Finance recommended the creation of an audit regulator.
- Most of the major economies of the world have independent audit regulators, and over the last decade or so, umbrella bodies have come up that have provided an element of cohesion to these regulators.

What lies ahead?

- Apart from setting the rules and regulations governing the audit sector, the NFRA will have the power to debar erring auditors or audit firm for up to 10 years and impose significant fines on them.
- According to Section 132 of the Companies Act, 2013, the NFRA will have powers to impose a fine of not less than ₹1 lakh, but the amount can extend up to five times of the fees received in case of individuals.
- The government has to set the rules that will stipulate the jurisdiction of the NFRA.
- Specifically, it has to set a limit on the size of an unlisted company that comes under the purview of the NFRA.

Ancient Molecule in Space:

Why in News?

Scientists have detected the most ancient type of molecule in our universe in space for the first time ever.

Details:

- Helium hydride ion (HeH^+) was the first molecule that formed when, almost 14 billion years ago, falling temperatures in the young universe allowed recombination of the light elements produced in the Big Bang.
- At that time, ionised hydrogen and neutral helium atoms reacted to form HeH^+ , said researchers from The Max Planck Institute for Radio Astronomy (MPIfR) in Germany.
- Despite its importance in the history of the early Universe, HeH^+ has so far escaped detection in astrophysical nebulae — cloud of gas and dust in outer space.

Who detected it?

- Operating the GREAT far-infrared spectrometer onboard the flying observatory SOFIA, an international team reported unambiguous detection of the molecule towards the planetary nebula NGC 7027.

How did it form?

- During the dawn of [chemistry](#) when the temperature in the young universe had fallen below 4000 Kelvin, the ions of the light elements (hydrogen, helium, deuterium and traces of lithium) produced in Big Bang nucleosynthesis recombined in reverse order of their ionisation potential.
- Helium combined first with free electrons to form the first ever neutral atom, according to the study published in the journal Nature.
- At that time hydrogen was still ionised or present in form of bare protons. Helium atoms combined with these protons into the helium hydride ion HeH^+ , the universe's first molecular bond.
- As recombination progressed, HeH^+ reacted with then neutral hydrogen and created a first path to the formation of molecular hydrogen — marking the beginning of the modern universe.

The detection of this special molecule brings a long search to a happy ending, and eliminates doubts that we might not understand the underlying formation and destruction as well as we thought, researchers said.

Varuna 19.1 Bilateral Exercise

Why in News?

The first part of the Indo-French joint naval exercise, Varuna 19.1 will be conducted off the Goa coast from 1st to 10th May 19.

Details:

- The upcoming 17th edition includes participation of the French Navy's aircraft carrier FNS Charles de Gaulle, two destroyers, FNS Forbin and FNS Provence, the frigate FNS Latouche-Treville, the tanker FNS Marne and a nuclear submarine.
- From the Indian side, the aircraft carrier INS Vikramaditya, destroyer INS Mumbai, the Teg-class frigate, INS Tarkash, the Shishumar-class submarine, INS Shankul, and the Deepak-class fleet tanker, INS Deepak, will be participating in this exercise.

- The exercise will be conducted in two phases. The harbour phase at Goa would include cross-visits, professional interactions and discussions and sports events.
- The sea phase would comprise various exercises across the spectrum of maritime operations.
- The second part, Varuna 19.2, is scheduled to be held at the end of May in Djibouti.

Background:

- The bilateral naval exercise initiated in 1983 and christened as 'Varuna' in 2001, form a vital part of the Indo-French strategic partnership.
- Having grown in scope and complexity over the years, this exercise exemplifies the strong relations between the two nations, in line with the Joint Strategic Vision of India-French Cooperation in the Indian Ocean Region.

Aim of Exercise:

- The Varuna exercise aims at developing interoperability between the two navies and fostering mutual cooperation by learning from each other's best practices to conduct joint operations.
- The exercise underscores the shared interests and commitment of both nations in promoting maritime security.

Global Warming:

Why in News?

Glaciers are set to vanish from almost half of U.N.-designated World Heritage sites in less than a century if greenhouse gas emissions are not cut, according to research published in the journal Earth's Future.

Sites likely to be affected include the Grosser Aletschgletscher in the Swiss Alps and Greenland's Jakobshavn Isbrae, researchers said in a study released this week.

[Wake-up call](#)

- The data should act as a wake-up call for nations to step up their commitments to prevent climate change, said the

International Union for Conservation of Nature (IUCN), which collaborated with the University of Fribourg on the study.

- Climate change is becoming one of the most significant risks for World Heritage sites, according to a report released by the United Nations cultural body, UNESCO, in 2016.
- Researchers plotted glaciers at World Heritage locations — identifying a total of some 19,000 over 46 sites — and used data modelling to predict ice loss based on how much carbon dioxide and other greenhouse gases the world emits between now and 2100.
- They found that well-known beauty spots, including the Los Glaciares National Park in Argentina, the Canadian Rocky Mountain Parks and Te Wahipounamu in South West New Zealand are expected to lose much of their ice.
- Nearly half the World Heritage sites — 21 out of a total of 46 that have glaciers — will lose all their ice by 2100 under a high emissions scenario, they found.
- Even under a low-emissions model, eight of the sites will be ice-free by the start of the next century, the report said.

Falling volume

- The research found significant melting is expected in all scenarios, with between 33% and 60% of the total ice volume in 2017 lost by 2100.

The findings should highlight the threat posed by global warming said Matthias Huss, one of the researchers on the study and the lead at the Glacier Monitoring Network at the University of Fribourg in Switzerland.

Chandrayaan-2

Why in News?

India's much-delayed second lunar mission, Chandrayaan-2, has got yet another launch window.

The mission is now set to be launched any time between July 5 and July 16 this year.

The moon landing is likely to be around September 6, 2019, nearly two months after the launch, close to the lunar South Pole, the Indian Space Research Organisation (ISRO) said.

Global plans

- The lunar South Pole is believed to contain ice and other minerals, and international space expedition plans are hotting up with NASA planning to land astronauts there by 2024, while China reportedly plans to build a scientific research station on the lunar South Pole within the next decade.

3 modules

- Chandrayaan-2 is a fully-indigenous mission that comprises three modules — an Orbiter, a Lander named 'Vikram', and a Rover named 'Pragyan' — and will be launched on board a GSLV-MkIII rocket.
- The GSLV-MkIII is a three-stage heavy lift launch vehicle that has been designed to carry four-tonne class satellites into Geosynchronous Transfer Orbit (GTO).
- The Chandrayaan-1 mission was launched on board a PSLV.

About Chandrayaan:

- The Chandrayaan-2 weighs around 3,290 kg, according to ISRO.
- It would orbit around the moon and carry out remote sensing of the moon.
- "The payloads will collect scientific information on lunar topography, mineralogy, elemental abundance, lunar

exosphere and signatures of hydroxyl and water-ice,” says ISRO.

Integrated module

- The Orbiter and the Lander will be stacked together as an integrated module, while the Rover will be housed inside the Lander.
- According to ISRO, once the Orbiter reaches the 100 km lunar orbit, the Lander will separate from it and ISRO will carry out a controlled descent at a specific site and deploy the Rover.
- The six-wheeled Rover will “move around the landing site in semi-autonomous mode as decided by the ground commands.
- The instruments on the rover will observe the lunar surface and send back data, which will be useful for analysis of the lunar soil.

Gold Reserves Soaring:

Context:

Central banks across the globe are building up gold reserves with the first quarter of 2019 seeing significant buying from such entities.

According to the latest Gold Demand Trends report by the World Gold Council, central banks bought 145.5 tonnes of gold in the first quarter — a 68% jump from the same period in 2018 and also the strongest start to a year since 2013.

Meanwhile, the overall global gold demand rose to 1,053.3 tonnes in the first quarter of 2019, up 7% compared to the same period last year.

Reasons Behind:

- This year-on-year increase was largely due to continued growth in central bank buying, as well as growth in gold-backed exchange-traded funds (ETFs).
- Diversification and a desire for safe, liquid assets were the main drivers of the purchases.

[Jewellery demand in India](#)

A lower local rupee gold price in late February and early March coincided with the traditional gold buying wedding season, lifting jewellery demand in India to 125.4 tonnes, a 5% increase on the same period last year and the highest Q1 since 2015," stated the report.

Why so?

- According to the WGC, this was purely due to a fall in demand for gold bars, as official gold coin buying grew 12% to 56.1 tonnes even as China and Japan were the main contributors to the decline.

The beginning of 2019 saw a sharp recovery in investor sentiment in both the equity and debt markets, but appetite for gold remained solid.

Crying Snake:

Why in News?

A new species of 'crying' snake has been discovered in Lepa-Rada district of [Arunachal Pradesh](#).

Details:

- The discovery of the non-venomous crying keelback, whose zoological name is *Hebius lacrima*, has been published in *Zootaxa*, the New Zealand-based scientific mega-journal for animal taxonomy.
- The name for this keelback was suggested because of a dark spot under its eyes looking like a black tear that interrupts a white stripe running along the upper jaw to the back of its head and beyond.

- Lacrima' means tear in Latin.
- The snake, preferring to live near streams along paddy fields, was found to feed on small fish, tadpole, frogs and geckos.
- Globally snakes are represented by 3,709 species. The northeast is home to some 110 species, with Arunachal Pradesh accounting for 55.

Other Discoveries:

- Several animals, birds, amphibians and insects have been discovered in Arunachal Pradesh in a little more than two decades.
- Assam-based Anwaraddin Choudhury discovered the Arunachal macaque (*Macaca munzala*) in 1997 but it was recognised as a new primate species in 2004.
- Another primate species called the white-cheeked macaque (*Macaca leucogenys*) was discovered by a four-member team in 2015.
- Another team led by Aparajita Dutta discovered the leaf deer (*Muntiacus putaoensis*) in 2002.
- Another major discovery was that of the Himalayan forest thrush in 2016. It was given the scientific name *Zoothera salimalii* after legendary ornithologist Salim Ali.

Launch of Fourth Scorpene Class Submarine - VELA

Context:

Vela, the fourth Scorpene class submarine being constructed by Mazagon Dock Shipbuilders Limited for the Indian Navy, was launched today.

This event reaffirms the steps taken by Mazagon Dock Shipbuilders Ltd (MDL) in the ongoing 'Make In India' programme, which is being actively implemented by the Department of Defence Production (MoD).

About the Submarine:

- The contract for the construction and Transfer-of-Technology for six Scorpene class submarines in series, has M/s Naval

Group (formerly DCNS) of France as 'Collaborator' and are being built by MDL.

- The Scorpene class of submarines can undertake multifarious tasks typically undertaken by any modern submarine which include anti-surface as well as anti-submarine warfare.
- In 2005, India chose the Scorpène design; purchasing six submarines for US\$3 billion (US\$500 million per boat).
- Under a technology transfer agreement, the state-owned Mazagon Docks in Mumbai was to manufacture the submarines, and deliver them between 2012 and 2016, however the project is running six years behind schedule.
- Construction started on 23 May 2009.
- The first Scorpène submarine, named INS Kalvari, was undocked for the purpose of starting sea trials in April 2015 and will be delivered in September 2016.
- In August 2016, over 20,000 confidential pages of the submarine's manual were leaked by Australian media, stirring up a controversy about the impact to India's ambitions of fielding a blue-water navy.

Anti-Dumping Duty:

Why in News?

The Finance Ministry has, on the recommendations of the Commerce Ministry, imposed an anti-dumping duty of \$1,633.17 per tonne on the import of saccharine from Indonesia.

What is Saccharine?

- Saccharine is a compound most commonly used in sugar-substitute sweeteners. Indonesia, until recently, accounted for a large chunk of India's saccharine imports.
- In 2017-18, India imported \$4.36 million worth of saccharine from Indonesia, which is 43% of the total imports of the sugar-substitute compound.
- However, imports from Indonesia have declined since then.

- In the April 2018 to February 2019 period, India imported only \$1.48 million worth of saccharine from Indonesia, about 20% of its total imports from around the world.
- “The product under consideration has been exported to India from subject country below their normal values and consequently, the domestic industry has suffered material injury,” the Department of Revenue notification said.

What is ADD?:

- An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value.
- Dumping is a process where a company exports a product at a price lower than the price it normally charges in its own home market.
- For protection, many countries impose stiff duties on products they believe are being dumped in their national market, undercutting local businesses and markets.

INS Vishal:

Why in News?

The [United Kingdom](#) is in talks with the Indian government on building a new state-of-the-art aircraft carrier along the lines of Britain’s HMS Queen Elizabeth as part of the ongoing ‘Make in India’ negotiations..

The talks are under way for the Indian Navy to buy detailed plans for the 65,000-ton British warship to build a so-called “copycat supercarrier” to be named INS Vishal in 2022.

About the Carrier:

- The report noted that such a new Naval carrier would serve alongside India’s 45,000-ton carrier INS Vikramaditya — bought from Russia in 2004 — and the currently under-construction 40,000-ton INS Vikrant, and could give India a larger carrier fleet than Britain.

- The design for UK aircraft carriers is owned by the British and French aerospace giants BAE and Thales.
- The reported India-UK Naval deal would follow the sale of Britain's Falklands War carrier HMS Hermes to India in 1987, which was renamed INS Viraat and decommissioned two years ago.

Advantages of Carrier:

- An **aircraft carrier** is a [warship](#) that serves as a seagoing [airbase](#), equipped with a full-length [flight deck](#) and facilities for [carrying, arming, deploying, and recovering aircraft](#).
- Typically, it is the [capital ship](#) of a fleet, as it allows a naval force to [project air power](#) worldwide without depending on [local bases for staging aircraft operations](#).
- Carriers have evolved since their inception in the early twentieth century from wooden vessels used to deploy [balloons](#) to [nuclear-powered](#) warships that carry numerous [fighters](#), [strike aircraft](#), [helicopters](#), and other types of aircraft.
- By its diplomatic and tactical power, its mobility, its autonomy and the variety of its means, the aircraft carrier is often the centerpiece of modern combat fleets.
- Tactically or even strategically, it replaced the [battleship](#) in the role of flagship of a fleet.
- One of its great advantages is that, by sailing in international waters, it does not interfere with any territorial sovereignty and thus obviates the need for overflight authorizations from third party countries, reduce the times and transit distances of aircraft and therefore significantly increase the time of availability on the combat zone.

UN Permanent Membership:

Context:

India and nations like Germany, Brazil and Japan are "absolutely needed" as permanent members of a reformed and enlarged UN Security Council to better reflect contemporary realities and the addition of these key members to the UN high-table is among France's "strategic" priorities, the French envoy to the UN has said.

Background:

- India is at the forefront of efforts at the UN to push for the long-pending reform of the Security Council, emphasizing that it rightly deserves a place at the UN high table as a permanent member.
- On the issue of 'Categories of Membership', a total of 113 Member States, out of 122 who submitted their positions in the Framework Document, support expansion in both of the existing categories specified in the Charter.
- In short, more than 90 % of the written submissions in the document are in favour of expansion in both categories of membership specified in the Charter.

Why reform needed?

- In terms of inertia too, it has no peer.
- While the world is not what it was when we began the process, the objections to moving forward remain the same.
- While the global challenges of the 21st century have multiplied, we remain divided even about the process to adopt in order to move forward.
- France has maintained that if the crises of recent times have confirmed the centrality of the UN, they have also reinforced the need to make the organisation more effective and more representative of the current balances in the world.
- "That is why France pushes for the expansion of the Security Council by supporting the accession to a permanent seat of Germany, Brazil, India, Japan, as well as a greater presence of African countries.

[Phasing out Diesel Vehicle:](#)

The story so far:

On April 25, Maruti Suzuki, India's top carmaker, announced that it would phase out production of diesel models from April 1, 2020, when stricter Bharat Stage VI emission standards come into force. What does this mean for the auto industry?

Why did Maruti take this decision?

- Explaining its rationale, the leading passenger vehicle manufacturer said the enhanced emission standards would make diesel engines costlier by up to ₹1.5 lakh, and the acquisition cost of diesel vehicles for consumers would be markedly higher than [petrol](#) equivalents.
- Given the market dynamics, it would not make business sense for the company to invest in developing new diesel engines to meet the BS VI norms. Compressed Natural Gas could be a replacement for both fuels, according to Maruti.
- Environmentally, diesel is a heavy polluter and is losing ground in leading passenger vehicle markets such as the European Union.
- The rigging of emissions data by Volkswagen to show lower levels of nitrogen oxides accelerated the move away from diesel.
- Even in Germany, which is a leading maker of diesel cars, cities want to ban them.

Why is the move significant?

- India has a growing vehicle-to-population ratio, although it is still lower than several other big countries.
- While Maruti's is a business decision, policy decisions on emission norms will steer the industry, and are therefore critical to improving air quality.
- Ambient air quality has deteriorated so badly that 15 Indian cities led by Gurugram are among the 20 most polluted cities globally as per the IQAir AirVisual 'World Air Quality Report' for 2018, based on fine particulate matter (PM2.5) that penetrates the lungs and bloodstream.
- Transport emissions, particularly from diesel, are a major contributor.

What is diesel's pollution profile?

- The Auto Fuel Vision and Policy 2025 published by the erstwhile Planning Commission, which laid out the road map for a transition to less polluting fuels, pointed out that sulphur

in diesel is a contributor to particulate matter both in the vehicular exhaust and in the atmosphere. Sulphur is found in petrol too, but for comparison, it was 2,000 parts per million (ppm) in petrol before introduction of standards in 2000, but in diesel it was 10,000 parts per million (ppm) in 1996. \

- \Sulphur content was reduced with each phase of upgradation of emission standards to touch 50 ppm under BS IV. In BS VI, which is already dispensed in Delhi, it is 10 ppm.
- Sulphur plays a key role since higher concentrations have an impact on technologies for control of other pollutants in the emissions, such as carbon monoxide, particulates, oxides of nitrogen and hydrocarbons.
- In India, the Global Burden of Disease Study 2017 attributed 8% of the disease burden, and 11% of premature deaths in people below 70 years of age to air pollution.

Conclusion:

- Even with a reduction in the sulphur content in BS VI fuels, the health effects of lower emissions would be lost due to a growing number of vehicles.
- The best scenario to reduce PM2.5 exposure in India is, therefore, not just shifting to BS VI fuels but bringing about a reduction in use of private vehicles through augmented public transport and promoting alternative fuels including the use of electric vehicles.

ADB:

Why in News?

The Asia-Pacific region is expected to power ahead growing at 5.7% this year but escalating trade tensions are a source of worry, according to Takehiko Nakao, President and Chairperson, Asian Development Bank.

Addressing the opening session of the Board of Governors at ADB's 52nd Annual Meeting here, Mr. Nakao said that consumer and investor behaviour could be undermined by trade tensions between countries.

About ADB:

- The **Asian Development Bank (ADB)** is a [regional development bank](#) established on 19 December 1966, which is headquartered in the [Ortigas Center](#) located in the city of [Mandaluyong, Metro Manila, Philippines](#).
- The company also maintains 31 field offices around the world to promote social and [economic development](#) in Asia. The bank admits the members of the [United Nations Economic and Social Commission for Asia and the Pacific](#) (UNESCAP, formerly the Economic Commission for Asia and the Far East or ECAFE) and non-regional [developed countries](#).
- From 31 members at its establishment, ADB now has 68 members, of which 49 are from within Asia and the Pacific and 19 from outside.
- The ADB was modeled closely on the [World Bank](#), and has a similar weighted voting system where votes are distributed in proportion with members' capital subscriptions. ADB releases an annual report that summarizes its operations, budget and other materials for review by the public.
- The ADB-Japan Scholarship Program (ADB-JSP) enrolls about 300 students annually in academic institutions located in 10 countries within the Region. Upon completion of their study programs, scholars are expected to contribute to the economic and social development of their home countries.
- ADB is an official [United Nations](#) Observer.
- As of 31 December 2016, Japan and United States hold the largest proportion of shares at 15.607%. China holds 6.444%, India holds 6.331%, and Australia holds 5.786%.

Drying in NE India:

Context:

Northeast India, one of the wettest places on the Earth has been experiencing rapid drying, especially in the last 30 years. Some places which used to get as high as 3,000 mm of rain during the monsoon season have seen a drop of about 25-30%.

Pattern of fluctuations

- Changes in the Pacific decadal oscillation (PDO) — a pattern of fluctuations in the ocean, particularly over the north Pacific basin — are mainly associated with this declined rainfall.
- Just like El Nino/La Nina in the tropical Pacific, PDO has a signature for a longer time (on the decadal scale) in the sea surface temperatures and its interaction with the atmosphere, which in turn affects the northeast Indian summer monsoon.”

Natural and manmade

- The team used observed rainfall and sea surface temperature data for the period 1901-2014 for the study.
- The results show out that the reduction in rainfall during a major part of the last 114 years may be associated with global man-made factors, while the trend during the last 36 years is associated with natural phenomena.
- “Only about 7% of the rainfall in this region is associated with local moisture recycling, which means that anthropogenic activities can affect only this small percentage.
- The researchers note that this study can be used to predict the monsoon rainfall over the northeast region on a decadal time scale using Pacific Ocean region data.
- Previous studies have found that a dry spell may be preceded by a wet spell, so the researchers warn that “change in land cover and deforestation could potentially result in more natural disasters, for example, flash flood, landslides from torrential rains, and damage to crops and biodiversity”.

“Policymakers should take these long-term predictions into account while planning construction of dams, power plants, etc. to prevent loss of property.

Initiatives by Commerce Ministry to Boost Trade with African Countries

The Commerce Ministry and Indian High Commissions and Embassies of eleven African countries arranged an interaction over Digital Video Conference (DVC) over two days, on 3rd and 6th May 2019, with the Indian business community in Africa.

Indo-Africa Trade:

- India's total trade with the African region during 2017-18 was USD 62.69 billion (8.15% of India's total trade with the World).
- India's share of exports to African countries as a percentage of India's total exports to the world was of the order of 8.21% in 2017-18.
- Africa region's share in India's total imports from the World accounted for 8.12% in 2017-18.
- Today, African countries present immense opportunities for India with the world's largest land mass, 54 countries, a population growing to be almost equivalent to that of India, huge mineral resources, oil wealth, a youthful population, falling poverty levels and increasing consumption patterns.

Thus, Africa has a huge demand for new business models for market entry, stable market access, entrepreneurship and investments in transport, telecom, tourism, financial services, real estate and construction.

About the Initiative:

- This initiative of the Commerce Ministry emphasizes the need for a multipronged strategy for further enhancing trade and investment ties between the two regions.
- Commerce Ministry recognizes that for formulating an effective export strategy it is imperative to engage the Indian business community in Africa for mutual gain for both sides as trade relations between the people of same origin instill greater confidence amongst trade partners.
- The inherent strength of India in Africa is its rich and vast Diaspora which has established strong links with the political, economic and social fabric of the African continent.

Road Accident:

Why in News?

Road accidents are the leading cause of death among people in the 5-29 age-group worldwide with more than 1.35 million lives lost each year and 50 million sustaining injuries, according to a World Health Organisation (WHO) report released during the on-going global [road safety](#) week.

Background:

In 2015, India became a signatory to the Brasilia Declaration on Road Safety, where we committed to halving road crash deaths by 2020.

Relevant data :

- As per the data released by the Indian government, road crashes kill close to 1,50,000 people each year.
- However, the WHO global status report on road safety had challenged the numbers and stated that India might be losing over 2,99,000 people each year.
- "Road crashes have emerged as the single biggest killer of people in the age group of 15-45.
- Meanwhile, the reasons listed for this trend include — rapid urbanisation, poor safety, lack of enforcement, distracted, influence of drugs or alcohol, speeding and a failure to wear seat-belts or helmets, according to experts.

Diego Garcia dispute:

Why in News?

The United States Monday said it supports British sovereignty over the strategically important islands in the Indian Ocean, including Diego Garcia, and supported bilateral resolution of the dispute between United Kingdom and [Mauritius](#).

Details:

- The United States supports the United Kingdom's continued sovereignty over the British Indian Ocean Territory (BIOT) .
- The joint US-UK military base on Diego Garcia plays a critical role in the maintenance of regional and global peace and security.
- United States views the BIOT issue as a purely bilateral dispute between the UK and Mauritius, which can and should be addressed through efforts by both parties.

- The United States remains concerned about the precedent the International Court of Justice (ICJ) could set for all UN member states.
- UN General Assembly advisory opinion requests should not be used to litigate bilateral disputes, particularly when a state directly involved has not consented to the jurisdiction of the ICJ, US said.

Background:

- **Diego Garcia** is an [atoll](#) just south of the [equator](#) in the central [Indian Ocean](#), and the largest of 60 small [islands](#) comprising the [Chagos Archipelago](#).
- It was first discovered by Europeans and named by the [Portuguese](#), settled by the [French](#) in the 1790s and transferred to British rule after the [Napoleonic Wars](#).
- It was one of the "Dependencies" of the British Colony of [Mauritius](#) until it was detached for inclusion in the newly created [British Indian Ocean Territory](#) (BIOT) in 1965.

Dispute:

- Between 1968 and 1973, the population was forcibly removed by the [United Kingdom](#) and the [United States](#) to establish an American base through intimidation of locals and denying the return of any who left the island.
- Many were deported to [Mauritius](#) and the [Seychelles](#), following which the United States built a large naval and military base, which has been in continuous operation since then.
- As of August 2018, Diego Garcia is the only inhabited island of the BIOT; the population is composed of military personnel and supporting contractors.
- It is one of two critical US bomber bases in the [Asia Pacific region](#), along with [Andersen Air Force Base](#), [Guam](#), [Pacific Ocean](#)

[Supreme Court & the Reserve Bank of India:](#)

The story so far:

On April 26, the Supreme Court directed the Reserve Bank of India (RBI) to disclose to the public the names of wilful defaulters on loans and also other information gathered by the central bank during its annual inspection of commercial banks.

What did the RBI do?

- In January 2016, the RBI refused to comply with demands made by activists under the Right to Information Act (RTI) to disclose copies of the annual inspection reports on banks such as the State Bank of India, Axis Bank, and ICICI Bank despite orders from the Supreme Court.
- The RBI also refused to provide information regarding the derivative losses suffered by banks and the fines imposed on banks by the RBI for violating various norms.

Why does it matter?

- The outcome of the battle between the RBI and the [Supreme Court](#) will determine the amount of information related to banks that will be made available to the public. Supporters of the Supreme Court's position believe that greater transparency will allow the general public and investors in public and private sector banks to make better decisions with their money.
- At the same time, the number of wilful defaulters has doubled over the same period. State Bank of India, the largest public sector bank, has suffered the largest amount of wilful defaults among all banks.
- The disclosure of the names of wilful defaulters to the public, many believe, will help bring about better credit discipline in the country by exposing problems brewing within banks sooner rather than later.
- The RBI, on its part, has argued that the disclosure of auditing information related to banks can lead to the exposure of sensitive information that may not be in the commercial interest of banks or even in the interest of the wider economy.
- The RBI also seems to believe that releasing information about defaulters can unfairly shame borrowers who may

genuinely not be able to pay back their loans due to various financial difficulties.

- Such shaming could have the unintended consequence of impeding genuine business activity in the economy. The [central bank](#) has also put forward the argument that it has the fiduciary duty to protect certain information about banks.

What lies ahead?

- It is hard to predict what will happen next in this battle.
- The Supreme Court may begin contempt proceedings against the RBI if it chooses to disobey its latest order, but the impact this will have on the RBI's freedom remains to be seen.
- The RBI has chosen not to obey orders coming from the Supreme Court in the past, including previous proceedings of contempt against it.
- If the RBI is forced to abide by the Supreme Court order, it will certainly increase publicly available information on banks
- Greater transparency will also help make the RBI more accountable.
- If there are legitimate reasons for banks and the RBI to withhold certain information from the public domain, however, the forced disclosure of information following the Supreme Court's order may lead to various unintended consequences both within the financial sector and the broader economy.
- The RBI, for instance, may choose to not include in its annual inspection reports certain sensitive information about banks that it feels shouldn't be in the public domain.

Delhi HC on Divorce:

Context:

The Delhi High Court has waived the cooling-off period for [divorce](#) by mutual consent of a woman, from her estranged husband, after she expressed her intention to enter into another marriage with a non-resident Indian who was in India for limited number of days.

Decision details:

- Section 13B of the Hindu Marriage Act, 1955 mandates that in case of divorce by mutual consent, there has to be a composite period of 18 months of separation — one year provided in Section 13B (1) and six months in Section 13B (2).
- Justice Prateek Jalan noted that the safeguards contained in the statute, including the period of one year between the separation of the parties and the first motion and the period of six months between the first motion and the second motion, are intended to explore every avenue of reconciliation and avoid an impulsive decision to break a marriage.

Background:

- The woman had approached the High Court after a family court here rejected her application for waiving the statutory period of six months under Section 13B(2) of the Hindu Marriage Act.
- The judge said that in the present case, however, there does not appear to be any likelihood of such reconciliation as the parties have lived separately since October 2017 and the composite period of 18 months expired on April 25, 2019.
- The family court had relied on a 2017 Supreme Court judgment to hold that the filed after the expiry of 18 months from the date when the parties had started living separately.
- However, the High Court rejected the family court's reasoning saying, "A holistic reading of the [Supreme] Court's judgment leads instead to the conclusion that purposeless marriage which has no chance of reunion ought not to be prolonged."

Iran Nuclear Deal:.

Why in News?

- European powers denounced Iran's threat to resume nuclear work on Thursday but vowed to save a landmark deal with Tehran despite U.S. pressure.
- [Iran](#) said it would defy some limits it accepted under the 2015 agreement, and threatened to go further if Europe, China and Russia fail to deliver sanctions relief within 60 days.

- Tehran says it is responding to unilateral U.S. sanctions imposed after President Donald Trump ripped up what he called a “horrible” deal, dealing a severe blow to the Iranian economy.

Europe’s Stance:

- Europe has stressed the importance of the deal — in which Iran agreed to curb its nuclear ambitions in return for sanctions relief — for its own security.
- French President Emmanuel Macron appealed for calm, saying Europe must work to convince Iran to stick with the deal.
- EU diplomatic chief Federica Mogherini and France, Germany and Britain — the three European signatories to the deal — voiced “great concern” at President Hassan Rouhani’s dramatic intervention.
- The EU statement stressed the International Atomic Energy Agency’s (IAEA) role in monitoring Iran’s compliance with the deal — suggesting that no concrete action is likely until the inspectors’ next report at the end of May.
- Since the US pullout, Europe has sought to keep Iran in the deal by trying to maintain trade via a special mechanism called INSTEX to clear payments without falling foul of American sanctions.
- The European statement reiterated its commitment to helping the Iranian people enjoy the benefit of sanctions relief, condemning the US reimposition.

Europe is “determined to continue pursuing efforts to enable the continuation of legitimate trade with Iran” including through INSTEX.

About JCPOA:

- The **Joint Comprehensive Plan of Action (JCPOA)** known commonly as the **Iran nuclear deal** or **Iran deal**, is an agreement on the [Iranian nuclear program](#) reached in [Vienna](#) on July 14, 2015 between Iran, the [P5+1](#) (the five [permanent](#)

[members of the United Nations Security Council](#)—China, France, Russia, United Kingdom, United States—plus Germany),[\[a\]](#) and the [European Union](#).

- Under JCPOA, Iran agreed to eliminate its stockpile of medium-[enriched uranium](#), cut its stockpile of low-enriched uranium by 98%, and reduce by about two-thirds the number of its [gas centrifuges](#) for 13 years.
- For the next 15 years, Iran will only enrich uranium up to 3.67%. Iran also agreed not to build any new [heavy-water facilities](#) for the same period of time.
- Uranium-enrichment activities will be limited to a single facility using first-generation centrifuges for 10 years.
- Other facilities will be converted to avoid [proliferation](#) risks.
- To monitor and verify Iran's compliance with the agreement, the [International Atomic Energy Agency](#) (IAEA) will have regular access to all Iranian nuclear facilities.
- The agreement provides that in return for verifiably abiding by its commitments, Iran will receive relief from U.S., European Union, and [United Nations Security Council nuclear-related sanctions](#).

[Climate change:Solutions](#)

Context:

Solutions to the biggest threats facing our planet lie underground, according to experts who insist [climate change](#), overpopulation and food shortages can all be tackled by going subterranean.

Efforts to meet seven of the United Nations' 17 sustainable development goals — from cleaning up pollution-clogged metropolises to ending world hunger — could be given a big boost by re-purposing spaces below street level.

What needed to be done?

- Underground spaces could easily be used for growing crops.
- Scientific developments in areas like aquaponics — where vegetables and fish are farmed together — could help relieve the pressure on the food supply chain, and dramatically cut transport costs if such new farms were situated under cities.

- Micro greens — tiny seedlings of plants such as fennel, radish or coriander usually harvested when they are full size — are already being grown underground, as is lettuce.
- We could look at adding products like soy or lupin, which can be used as the basis for creating more protein-rich products that can be used as a substitute for meat,” reducing our reliance on one of the biggest climate destroyers: the meat industry.

Successful Examples:

- From Boston to Oslo, Rio de Janeiro, Seattle and Sydney, structures such as multi-lane highways are being moved underground, with the disused spaces converted into parks.
- Cities, where the population growth is very strong, and which are struggling with resources, are looking at innovative ways to expand.
- “They’re looking at floating cities but are realising that’s not the solution, because it affects marine life and is difficult to build, so why not go downwards.
- Metropolises like Singapore and Hong Kong have already begun changing legislation to allow for everything from universities to libraries, shopping centres, cinemas and sports facilities to move underground.

Advantages:

- Trees planted in new green areas will do their bit to help rein in climate change, as well as help prevent soil degradation.
- Going underground can also help protect populations from the severe weather events climate change is expected to spark.
- “For flooding, and also for other natural disasters, it can really help make the city more resilient to exploit the underground for shelter.
- “Fibre optics can bring sunlight below the surface, and also you can simulate daylight nowadays.

[Monkeypox:](#)

Why in News?

[Singapore](#) has reported its first case of the rare monkeypox virus brought in by a Nigerian man who authorities said may have been infected by bushmeat he ate at a wedding.

What is it?

- Monkeypox, a virus similar to the human smallpox which was eradicated in 1980, does not spread easily from person to person, but can in rare cases be fatal.
- Singapore's Ministry of Health (MOH) said in a statement late on Thursday that the infected patient was a 38-year-old Nigerian who arrived in Singapore in late April.
- "While risk of spread is low, MOH is taking precautions," the ministry said in a statement, adding that ongoing investigations suggest 23 persons had been identified as being in close contact with the patient while he was in Singapore.
- Monkeypox typically lasts for two to four weeks, starting as a fever and headache and progressing through to small bumps called pustules that spread over the body.

Earlier Cases:

- Sporadic human cases of monkeypox have been reported in west and central Africa since the 1970s, and in 2003, the first cases outside of Africa were reported in the United States.
- Human monkeypox infections have only been documented three times outside of Africa, in the United States, the United Kingdom and Israel, according to the U.S.-based Centers for Disease Control and Prevention.

Last September, Britain reported its first cases all linked to travel in Nigeria.

Growth in Bank Credit:

Context:

Bank credit grew by 13.2% in financial year 2018-19 as compared to 10.3% in the previous financial year, mainly aided by loans to services and retail sector.

Deposit growth also gained momentum, growing by 10% as compared to 6.7% a year ago.

RBI data

- The Reserve Bank of India's data on deployment of gross credit across different sectors shows healthy credit growth in the services sector followed by retail sector. Credit growth in services sector till the middle of February was 23.7% and in retail sector it was 16.7%.
- Credit growth in the industry sector was 5.6%.
- Banks have also benefited from the liquidity crunch that non-[banking](#) financial companies are facing following the IL&FS crisis.
- NBFCs have slowed down their loan growth since their cost of funds increased substantially after September-October.
- This is particularly true for retail loans, where NBFCs are a major player.
- Banks have been pushing loans to the corporate sector at a slower pace after sharp rise in bad loans, mostly in sectors like infrastructure, power, and iron and steel.

New Job Prospects:

Why in News?

The Indian tech industry will add another three million new jobs in the next five years, said Indian Staffing Federation (ISF), the apex body for the 'flexi' working industry.

With the additions, the size of the country's tech army will be 7 million by 2023.

Details:

- These new jobs would come up in digital technology areas such as artificial intelligence (AI), machine learning, Internet of things (IOT), data science, analytics, big data, blockchain and augmented reality.

- Jobs would also be created in newer technology areas that are presently unknown but are expected to emerge and evolve in the next few years.
- The ISF's tech [employment](#) projection comes as a big relief to millions of young techies and software engineering students amid talks of the move towards jobless growth with automation that replaces humans with robots.

Changing technology

- The industry had been witnessing winds of change in technology.
- Today, a robot, with infinite memory analytical capacity, is connected to the cloud.
- It's impact on productivity of businesses would be 'huge'.
- Some 63% of CEOs think that AI would have a larger impact than the Internet and some 39% of them had already started AI-related initiatives in their organisations.
- When we think about addressing this problem, the only sustainable way to achieve this is through formalisation, industrialisation, urbanisation and financialisation of the human capital."

WHO and Trans Fat:

Context:

Trans fat, also called the worst form of fat in food, responsible for over 5,00,000 deaths globally from coronary heart disease each year, could be eliminated from the industrially produced global food supply by 2023 if the World Health Organization (WHO) has its way.

Steps Taken:

The WHO has welcomed its partnership with the International Food and Beverage Alliance (IFBA) to achieve this target.

It said: "Eliminating industrially produced trans fat is one of the simplest and most effective ways to save lives and create a healthier food supply."

Regulatory action:

- The meeting also stressed the value of regulatory action on labelling, marketing and urged industry for full adherence to the WHO code of marketing of breast milk substitutes.
- The commitment made by the IFBA is in line with the WHO's target to eliminate industrial trans fat from the global food supply by 2023.
- Of particular note was the decision by IFBA members to ensure that the amount of industrial trans fat in their products does not exceed 2 gram per 100 g fat/oil globally by 2023."

India has among the highest number of coronary heart disease cases in the world and we must try to beat this deadline.

What are Trans fats?:

- **Trans fat**, also called **trans-unsaturated fatty acids** or **trans fatty acids**, is a type of [unsaturated fat](#) that occurs in small amounts in nature, but became widely produced industrially from vegetable fats starting in the 1950s for use in [margarine](#), snack food, packaged baked goods, and for frying fast food.
- Fats contain long [hydrocarbon](#) chains, which can be either unsaturated, i.e., have [double bonds](#), or saturated, i.e., have no double bonds.
- In food production, liquid cis-unsaturated fats such as vegetable oils are [hydrogenated](#) to produce saturated fats, which have more desirable physical properties: e.g., they melt at a desirable temperature (30–40 °C); and extend the shelf-life of food .
- Partial hydrogenation of the unsaturated fat converts some of the cis double bonds into trans double bonds by an [isomerization reaction](#) with the [catalyst](#) used for the hydrogenation, which yields a trans fat.

Risks Involved:

- Although trans fats are edible, consuming trans fats has been shown to increase the risk of [coronary artery disease](#) in part

by raising levels of [low-density lipoprotein](#) (LDL, often termed "bad cholesterol"), lowering levels of [high-density lipoprotein](#) (HDL, often termed "good cholesterol"), increasing triglycerides in the bloodstream and promoting systemic inflammation.