CURRENT AFFAIRS

Month of

JANUARY-2020

CURRENT AFFAIRS ANALYST
PART-1 (JANUARY, 2020)

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SECTION: A
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CURRENT AFFAIRS

INDIAN RAILWAYS REFORMS: A SINGLE CADRE FOR RAILWAYS MANAGEMENT

CONTEXT

. **Recently, the Cabinet recently approved to trim the Railway Board and merge service cadres.**

◉ BACKGROUND

œ The Cabinet recently approved **trimming of the Railway Board**, the powerful body that governs the Indian Railways. From **nine**, the Board will now have only **five Members**.

œ The Cabinet also decided to merge all **central service cadres of Railways officers into a single Indian Railways Management Service (IRMS)**. Now, any eligible officer could occupy any post, including Board Member posts, irrespective of training and specialisation, since they will all belong to IRMS.

œ The five members of the Board, other than a Chairman-cum-CEO, will now be the Members Infrastructure, Finance, Rolling Stock, Track, and Operations and Business Development. The Board will also have independent members, who will be industry experts with at least 30 years of experience, but in non-executive roles, only attending Board meetings.

œ The move has led to protests from serving civil servants, prompting the Railway Board to reach out to them to allay their concerns.

◉ ANALYSIS

Present System in Railways

œ The Indian Railways is governed by a pool of officers, among whom engineers are recruited after the Indian Engineering Service Examination, and civil servants through the Civil Services Examination. The civil servants are in the Indian Railway Traffic Service (IRTS), Indian Railway Accounts Service (IRAS) and Indian Railway Personnel Service (IRPS). The engineers are in five technical service cadres — Indian Railway Service of Engineers (IRSE), Indian Railway Service of Mechanical Engineers (IRSME), Indian Railway Service of Electrical Engineers (IRSEE), Indian Railway Service of Signal Engineers (IRSSE) and the Indian Railway Stores Service (IRSS).

œ Until the 1950s, the Railways system was run by officers from just three main streams: Traffic, Civil Engineering, and Mechanical. The other streams emerged as separate services over time.

Need for Reform

œ There are 8 Group A services in Indian Railways (IR) — IRPS (Indian Railway Personnel Service), IRTS (Indian Railway Traffic Service), IRSS (Indian Railway Stores Service), IRSME (Indian Railway Service of Mechanical Engineers), IRSEE (Indian Railway Service of Electrical Engineers), IRSSE (Indian Railway Service of Signal Engineers), IRSE (Indian Railway Service of Engineers) and IRAS (Indian Railway Accounts Service). Five—IRSME, IRSEE, IRSSE, IRSS and IRSE—are so-called technical services, recruited through an engineering service examination conducted by UPSC. Three—IRPS, IRTS and IRAS—are non-technical, recruited through the civil service examination conducted by UPSC. It has led to inter-departmental rivalry. The government wants to end inter-departmental rivalries, which it says have been hindering growth for decades. **Railway Minister Piyush Goyal said departments were working "in silos".**

œ Unification has been recommended by several committees—**Prakash Tandon** (1994), **Khanna** (1998), **Rakesh Mohan** (2001), **Sam Pitroda** (2012) and **Bibek Debroy** (2015). Prakash Tandon Committee recommended a single service. A Gupta-Narain Committee (1994), set up to examine feasibility of implementing this single service idea, questioned whether this could be done.

œ **Bibek Debroy committee in 2015 has noted that "departmentalism" is a major problem in the system.** Most committees have said merger of the services in some form would be a solution. **The Debroy report recommended merging of all services to create two distinct services: Technical and Logistics.** But it did not say how to merge the existing officers.

œ A separate exam under the Union Public Service Commission is proposed to be instituted in 2021 to induct IRMS officers.

Why are officers opposed to the move?

œ The questions started with a proposal to merge all 8,400 officers in the eight services — five technical and three non-technical — to prepare a common seniority list and a general pool of posts, especially in higher managerial ranks. The Cabinet has decided that a Group of Secretaries, and then a Group of Ministers through the 'Alternate Mechanism', will look at how best to do this.

œ Those protesting the government's decision say that the merger is unscientific and against established norms, because it proposes to merge two fundamentally dissimilar entities, with multiple disparities.

œ First, the civil servants come from all walks of life after clearing the Civil Services Examination. The engineers usually sit for the Engineering Services Examination right after getting an engineering degree. Various studies have noted that engineers join the Railways around the age of 22-23, while the civil servants join when they are around 26, barring exceptions. The age difference starts to pinch at the later stages of their careers, when higher-grade posts are fewer. There are more engineers than civil servants.

œ Protesters are also saying that the merger is against the service conditions which civil servants sign up for while choosing an alternative if they cannot make it to IAS.

How pronounced is this skew?

œ The Railways have legitimised a system wherein an officer with a certain number of years left in service will be considered eligible for general-management higher posts, the most important of which is that of General Manager, who heads zones and production units.

œ An officer, irrespective of seniority in his batch and acumen, requires at least two years of service left to be eligible for GM. There are 27 such posts, including as the heads of the 17 zonal railways.

œ While any officer from any service can be considered for GM, civil servants have often found themselves at a disadvantage since they don't have the required service tenure left. Today, of the 27 posts, civil servants occupy only two. One of them is from the Traffic service, not just because of merit but also because the Member (Traffic) post cannot be filled by anyone other than a Traffic service officer and, to be the Member (Traffic), an officer needs to have served as GM. And only engineers have been Chairman Railway Board since July 2013.

œ In the fields where the Railways are actually operated, the share of civil servants in junior-to-middle levels is over 40 per cent. But in higher management, their representation is around 16-17 per cent.

What will change with the restructure?

œ In inter-departmental seniority — a complex process to fix, which has led to court cases in the past — problems arise when different services compete for posts that are open to all — like those of Divisional Railway Managers (DRMs), GMs, and subsequently, the Chairman Railway Board. And here lies the major criticism of the move.

œ The civil servants are saying that if all present cadres are merged and even higher departmental posts become open to all, engineers, being in larger numbers and of a certain age profile, may end up occupying most posts, if not all.

œ Another aspect is the suitability of jobs. The move, many say, emerges from the "simplistic" belief that while non-technical specialists cannot do technical jobs, technocrats can do both. The counter-argument is that civil servants in government, by virtue of the screening process and subsequent training, possess acumen and skills that go beyond academic specialisation.

How did the Railways get here?

œ Departmental posts are ring-fenced; promotions happen within each department from officers of that service. The problem starts when, within a department, there are too many officers eligible for a few posts. A department needs a constant supply of posts in higher grades to keep promoting its seniors so that the juniors can keep getting timely promotions.

œ In the Railways, this has happened either organically when the government restructured the cadres and created new posts at intervals of several years, or through the execution of projects.

œ Across the Railways, the internal attempt by each department has always been to get a bigger share of resources to spend on projects, although the limited funds are meant for all. Until recently, for execution of each project, departments could create "temporary" posts, called "work-charged" posts, funded through money from the particular project. Departments would seek more projects since the byproduct was more work-charged posts — and that meant more promotional avenues for the department's officers. The departments grew, promotional prospects expanded, even if Railways did not. The "temporary" posts were almost never surrendered, and were "regularised" over time. This was most prevalent in the technical departments and, to an extent, in the Accounts department as well.

œ In the cadre-restructuring exercise, overseen by the Cabinet and the Cabinet Secretary, work-charged posts have been banned. But a majority of the "temporary" posts were absorbed in regular cadres.

œ In 2015, the government merged the verticals (not cadres) of Electrical and Mechanical on "functional lines" to make the Rolling Stock and the Traction departments. Electrical was made in charge of locomotives, and Mechanical of coaches, wagons, AC — even though the Railways are an electrical system. So Mechanical verticals working in one field started reporting to an Electrical boss and vice versa, with many of them losing influence on their domain subjects.

Way Forward

œ The current demand is for two distinct services instead of one — a civil services, and one that encompasses all engineering specialisations. The logic is that functionally, departments will continue to exist through various technical and non-technical specialisations, so merging them will not end departmentalism per se.

œ The government has on record assured all existing officers that no one's seniority will be hampered and promotion prospects will be protected.

œ The protests are gathering momentum. Amid all this, one concern among the higher-ups is that the actual job of safely running trains 24/7 must not get neglected. DoPT should step in to allay the fears of civil servants and pave way for the reforms in railways.

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AUSTRALIA FIRE

CONTEXT

. **Wild bushfires have been ravaging Australia for several weeks now. These fires have been especially severe in the New South Wales and Victoria.**

◉ BACKGROUND

œ The State declared a week-long state of emergency in response to the escalating disaster.

œ 916 homes have been destroyed this season, 363 more have been damaged.

œ Both New South Wales and Victoria have given fire fighting authorities the power to forcibly relocate people.

œ Bushfires in Australia impact extensive areas and cause property damage and loss of human life.

œ Some of Australia's native flora has evolved to rely on bushfires as a means of reproduction, and fire events are an interwoven and an essential part of the ecology of the continent.

œ For thousands of years, Indigenous Australians have used fire to foster grasslands for hunting and to clear tracks through dense vegetation.

œ Major firestorms that result in severe loss of life are often named based on the day on which they occur, such as Ash Wednesday and Black Saturday.

œ Some of the most intense, extensive and deadly bushfires commonly occur during droughts and heat waves.

What Is a Bushfire?

œ One type of wildfire is known as a bushfire, an uncontrolled fire that burns through scrubland, which is common to Australia.

œ Like all wildfires, a bushfire places nature and man under threat.

œ There are many factors that lead to a bushfire or influence its spread. This includes the type of fuel. Some grasses as well as twigs can burn very quickly. On the other hand, large tree trunks don't burn as easily.

œ The moisture of the fuel is another critical factor. Fuel that's wet is unlikely to burn. Similarly, increased humidity decreases the chances that a bushfire will start.

œ On the flipside, lower humidity, higher temperature, and drier conditions all help ignite and spread a fire.

œ Wind plays a key part in the spread of bushfires too. Wind provides much needed oxygen for a fire.

œ A bushfire will spread up a hill much faster than it will down a hill due to the processes of convection and radiation.

These Fires Are Triggering Thunderstorms

œ It's an explosive storm called pyro cumulonimbus and it can inject particles as high as 10 miles into the air.

œ During a fire, heat and moisture from the plants are released, even when the fuel is relatively dry.

œ Warm air is less dense than cold air so it rises, releasing the moisture and forming a cloud that lifts and ends up a thunderstorm started by fire.

œ It happens from time to time in Australia and other parts of the world, including Canada.

Are the Australian trees prone to burning?

œ Eucalyptus trees are especially flammable, "like gasoline on a tree.

œ Chemicals in them make them catch fire easier, spread to the tops of trees and get more intense.

œ Eucalyptus trees were a big factor in 2017 fires in Portugal that killed many people.

Major causes of Bush fires

œ Australia's deadly fires have been fuelled by a combination of extreme heat, prolonged drought and strong winds.

œ The country is in the grip of a heat wave, with record-breaking temperatures.

œ Major parts of the country are experiencing rainfall shortfalls.

œ Trees, shrubs and grasslands have turned into the perfect tinder for flames.

œ Global warming is intensifying the fires.

œ Indian Ocean Dipole is also among one of the reason as it brings drought like conditions and decline in precipitation plays a major role in intensifying fires.

Effects on Biodiversity

œ The destruction of standing cavity trees as well as dead logs on the ground has negative effects on most small mammal species.

œ Fires can cause the displacement of territorial birds and mammals, which may upset the local balance

and ultimately result in the loss of wildlife, since displaced individuals have nowhere to go.

œ Loss of fruit-trees results in overall decline in bird and animal species that rely on fruits for food; this effect is particularly pronounced in tropical forests.

œ It alters the hydrological cycle.

œ It causes harm to the coral reefs, certain plant species.

œ Too much of smoke can lower down the rate of photosynthesis.

œ Fires turn forests into grasslands.

œ Depletion of Ozone layer can also be its one of the outcome.

How can Prevention be done?

œ Obtaining a burning permit for burning grass, brush, slash or other debris in or within a prescribed distance of forest land.

œ A work permit for any work in forest land involving two or more people.

œ Burn only natural vegetation or untreated wood products.

œ Burn piles are at least 50 feet from structures and 500 feet from any forest slash.

œ Clear the area around the burn pile of any flammable debris.

œ Keep fire fighting equipment handy - a connected water hose or at least five gallons of water and a shovel should be nearby.

œ Don't burn if it's too windy to burn - if trees are swaying, flags are extended, or waves appear on open water.

œ Be prepared to extinguish the fire if it becomes a nuisance.

œ Attend the fire until it is completely out.

œ Smoking should not be done while moving from one place to another in forest land.

œ Power saws must have a proper muffler and be accompanied by a round point shovel or fire extinguisher.

œ Cars, trucks and machinery must have proper exhaust systems when operated in or near forest land. Exhaust spark arresters are a requirement on certain machines.

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WHY THIS WINTER IS EXTRA COLD IN INDIA

CONTEXT

. The unusually cold December this year could just be another instance of extreme climates becoming more and more frequent, a result of climate change. Across the world, the frequency and intensity of both heat waves and cold waves have increased in the last few years.

◉ ABOUT

œ Extreme cold temperatures, rainfall and intense fog in the months of December and January are witnessed by north and northwest India.

œ Every year, in the second half of December and the first half of January, temperatures routinely drop to 2-4°C at some point of the day in many places in north and northwest India.

œ In December, the maximum daily temperature does not rise beyond 16-18°C in most of Punjab, Haryana, Himachal Pradesh and western Uttar Pradesh.

œ In Delhi and northern Rajasthan, daily maximum temperatures are usually not over 20-22°C for most of December.

œ This has happened only four times in the last 118 years, and the IMD has said this month would most likely become the second coldest December for Delhi since 1901.

œ This is already the longest such spell for December since 1997.

How cold is cold/Meaning?

œ A cold-day condition is said to prevail when the maximum temperature during the day is at least 4.5°C below normal.

œ If the maximum temperature is at least 6.5°C below normal, it is classified as a severe cold day.

Causes for these conditions

œ Scientists say there is nothing unusual in the climatic conditions that influence temperatures in this region at this time of the year.

œ The cold wave usually arrives from the west, through the Western Disturbance wind system.

œ This system is also responsible for causing rains in northern and northwestern parts, after having picked up moisture on its way from the Mediterranean Sea.

œ The intensity of the cold also depends on the amount of snowfall that happens in Jammu and Kashmir, Ladakh, Himachal Pradesh and nearby areas.

œ They combine in different ways to produce different kinds of winter conditions.

œ The frequency and intensity of both heat waves and cold waves have increased in the last few years, and are predicted to increase further. The same is the case with extreme rainfall and drought.

œ Flow of north-westerly winds over northwest India that too over much lower levels, further fuelled the chill factor, making the days much colder than normal during December.

œ This extended cold spell has been triggered due to low stratus clouds that are blanketed over a large geographical area — between Pakistan, cutting across India and running up to Bangladesh.

India Meteorological Department (IMD)

. The IMD is the national meteorological service of the country and it is the chief government agency dealing in everything related to meteorology, seismology and associated subjects.

. It was formed in 1875.

. The IMD is under the Ministry of Earth Sciences, Government of India.

. IMD mandate:

> To take meteorological observations and provide current information and forecasting information for the most favorable operation of weather-dependent activities such as irrigation, agriculture, aviation, shipping, offshore oil exploration and so on.

> To warn against severe weather phenomenon such as tropical cyclones, dust storms, norwesters, heat waves, cold waves, heavy rains, heavy snow, etc.

> To provide meteorological related statistics needed for agriculture, industries, water resources management, oil exploration, and any other strategically important activities for the country.

> To engage in research in meteorology and allied subjects.

> To detect and locate earthquakes and evaluate seismicity in various parts of the country for developmental projects.

Western Disturbances

. Western Disturbance is a frequently used terminology to describe weather in the Indian sub-continent.

. Western Disturbance can be defined as "a low pressure area or a trough over surface or the upper-air in the westerly winds regime, north of 20°N, causing changes in pressure, wind pattern and temperature fields. It is accompanied by cloudiness, with or without precipitation."

. Western Disturbances originate in the Caspian Sea or the Mediterranean Sea as extra-tropical cyclones. They gradually travel across the middle-east from Iran, Afghanistan and Pakistan to enter the Indian sub-continent.

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MADAN MOHAN MALVIYA

CONTEXT

.   **December 25 is the birth anniversary of Madan Mohan Malaviya, the famed Indian educationist and freedom fighter who is also called 'Mahamana'.**

◉ BACKGROUND

œ He was an Indian educationist and politician notable for his role in the Indian independence movement.

œ He was four times president of Indian National Congress.

œ He was respectfully addressed as Pandit Madan Mohan Malaviya and also addressed as Mahamana.

œ He was the founder of Banaras Hindu University (BHU).

œ He has been conferred the Bharat Ratna along with former prime minister Atal Bihari Vajpayee in 2014.

œ Malaviya was born in Allahabad, North-Western Provinces, India on 25 December 1861.

Malviya and his life

œ Malaviya is credited with popularising the term 'Satyameva Jayate' (Truth alone triumphs) - India's national motto.

œ He did not coin the term. It is a mantra from the Upanishads, written thousands of years ago.

œ He was president of the Indian National Congress party four times - in 1909, 1918, 1932 and 1933.

œ Malaviya is often described as a Hindu nationalist, but he always strived for Hindu-Muslim unity. He gave two famous speeches on communal harmony- one in Lahore in 1922 and in Kanpur 1931.

œ Malaviya, who practiced as a lawyer at Allahabad High Court, defended most of the accused in the 1922 Chauri Chaura riots in Gorakhpur in UP and is said to have saved 153 accused from getting death penalty.

œ His multifaceted personality made him, at the same time, a great patriot, an educationist with a vision, a social reformer, an ardent journalist, reluctant but effective lawyer, a successful parliamentarian and an outstanding statesman.

œ Among Malaviyaji's many achievements, the most monumental was the establishment of the Banaras Hindu University or Kashi Hindu Vishvavidyalaya.

œ In the course of his lifetime Banaras Hindu University came to be known as a Capital of Knowledge acknowledged across India and the World.

œ He was staunch opponent of Separate electorates and so disapproved Lukhnow pact (Congress – league) of 1916. He was also opposed to Khilafat Movement.

Biography-

œ Malaviya was the son of Pandit Brij Nath, a noted Sanskrit scholar, and his early education took place at two Sanskrit pathshalas (traditional schools).

œ After graduating from Muir Central College, Allahabad, in 1884, he took up teaching in a local school.

œ He was a diligent scholar and instructor, but he was more attracted to politics, and he made his political debut at the 1886 Calcutta (Kolkata) session of the Indian National Congress.

œ Malaviya also served on the Imperial Legislative Council (1909–20).

œ He participated actively in debates on issues including free and compulsory primary education, the prohibition on recruiting of Indian indentured labour in the British colonies, and the nationalization of railways.

œ Though a strong supporter of Congress, Malaviya helped establish the Hindu Mahasabha ("Great Society of Hindus") in 1906, which brought diverse local Hindu nationalist movements together.

Contribution in Education Sector-

œ Malaviya, who was keenly interested in uplifting the educational standards of the country, was the principal founder in 1916 of the Banaras Hindu University in Varanasi, a premier institution of learning in India.

œ He chose Banaras as the site, because of the centuries old tradition of learning, wisdom and spirituality inherent to the place.

œ His vision was to blend the best of Indian education called from the ancient centres of learning - Takshashila and Nalanda and other hallowed institutions, with the best tradition of modern universities of the west.

œ Great minds and personalities like Annie Besant, Mahatma Gandhi, Rabindranath Tagore, Shyama Charan De and many others joined hand with him in his quest for knowledge, arousing the national spirit in India and winning freedom with the power of education and righteousness.

œ He served as the university's vice-chancellor for some two decades (1919–38) and remained active at the school until his death.

œ Malaviya's consciousness toward the public led to the launch of his own Hindi-language weekly, the *Abhyudaya* (1907), the *Leader of Allahabad*, an English-language daily (1909), and the Hindi monthly the *Maryada* (1910).

œ In addition, he was chairman of the board of directors of the *Hindustan Times* from 1924 until he died.

His Contribution to Freedom movement-

œ He was perhaps only freedom fighter, who was involved in politics of congress right from beginning i.e. 1886 and remained active till his death in 1946.

œ Apart from freedom fighter he was an educator, social reformer, journalist, and lawyer.

œ On the ideological level, he was a moderate, traditionalist and nationalist.

Social Work-

œ Pt. Madan Mohan Malaviya was the founder of several organisation and edited magazines of high standard in order to promote Hindu ideals of Sanatan Dharma, and to build India as a strong and developed country in the world.

œ For thispurpose, hefounded"Prayaga Hindu Samaj", and wrote served articles on the Contemporary issues and problems of the country.

œ In 1884, he became the member of 'Hindi Uddharini Pratinidhi Sabha'.

œ In 1885, he edited 'Indian Union' English weekly.

œ In 1887, he established "Bharata Dharma Mahamandal", to propagate Sanatan Dharma and Hindu culture. He was editor of 'Hindustan'.

œ In 1889, he edited 'Indian Opinion'.

œ In 1891, he become barrister and started practicing at Allahabad High Court. He pleaded successfully for many significant cases during these days.

œ He left the law practice in 1913 and decided to serve the nation for attaining freedom from British rule.

œ Mahamana was keenly interested to help the students for better learning and living and for this sake he arranged to build a Hostel named 'MacDonnell Hindu Hostel' at Allahabad, and in 1889, he also established there a library.

œ In 1942, he founded Goraksha Mandal.

œ He took up the cause of Harijans and worked for their upliftment along with Gandhi Ji. The Harijan Sevak Sangh was founded at a meeting in 1933 at which Pandit Malviya presided. He worked for eradication of untouchability and to enable temple entry for Harijans. However, he believed in Varnaashram system (as did Gandhi ji).

Brief timeline

Brief Summary of the Malaviya's Life	
25.12.1861	Born in Allahabad
1884	B.A. from Calcutta University
December 1886	2nd Congress in Calcutta under chairmanship of Dadabhai Nouroji. Speech on the issue of representation in Councils
July 1887	Editorship of the *Hindosthan* in *Kalakankar*. Founding conference of Bharat Dharma Mandal
July 1889	Leaving editorship joins LL.B. in Allahabad
March 1898	Submits memorandum about Hindi to U.P. Lt. Governor
1902-1903	Construction of Hindu Boarding House in Allahabad
January 1906	Convened Sanatan Dharma Mahasabha on Kumbha in Allahabad. Propagation of liberal Sanatan Dharma. Decision to open university in Banaras
1907	Editorship of the Abhyudaya. Propagation of Sanatan Dharma and democratic principles
1909	Editorship of the English daily Leader. Chaired the Lahore Congress
October 1910	Presidential address in 1st Conference of Hindi Sahitya Sammelan
22.11.1911	Formation of the Hindu University Society
December 1911	At 50 gave up practice. Decision to serve country and work for establishing the university
February 1915	Formation of Prayaga Seva Samiti under his chairmanship
October 1915	The Banaras Hindu University Bill passed
March 1916	Bill against Indentured Labour system in Councils
1918	Formation of Scout Association by Seva Samiti

December 1918	Chaired Annual Congress Conference in Delhi		August 1926	Formation of Congress Independent Party with Lala Lajpat Rai
Nov. 1919-Sep. 1939	Vice Chancellor, B.H.U.		1931	Took part with Gandhi in the London Round Table Conference
19 April 1919	Chaired Hindi Sahitya Sammelan in Bombay		March 1932	Formation of All India Swadeshi Union in Banaras
January 1922	Convened all party conference		20 April 1932	Nominated President of Delhi Congress. Arrested
16 December 1922	Speech on Hindu Muslim goodwill in Lahore		April 1932	As Calcutta Congress President arrested in Asansole
1924	Formation of Independent Party in District and Assembly. Satyagraha on Sangam [Confluence of rivers] in Allahabad. Debate on the Steel Conservation Bill		November 1939	Appointed life Rector of BHU
			1941	Founded *Goraksha* Mandal
			12 November -1946	Passed Away

CLIMATE SUMMIT COP 25: A CRITIQUE

CONTEXT

.   Recently 25th Conference of Parties (CoP 25) to the United Nations Framework Convention on Climate Change concluded in December 2019 at Madrid.

◉ BACKGROUND

UNFCC: Institutional Arrangements

The Conference of the Parties (COP)

. Article 7.2 defines the COP as the "supreme body" of the Convention, as it is its highest decision-making authority. The climate change process revolves around the annual sessions of the COP.

. COP President and Bureau

. The office of the COP President normally rotates among the five United Nations regional groups. The President is usually the environment minister of his or her home country. S/he is elected by acclamation immediately after the opening of a COP session. Their role is to facilitate the work of the COP and promote agreements among Parties.

. The work of the COP and each subsidiary body is guided by an elected Bureau. To ensure continuity, it serves not only during sessions, but between sessions as well.

Subsidiary Bodies (SBs)

. The Convention establishes two permanent subsidiary bodies (SBs), namely the Subsidiary Body for Scientific and Technological Advice (SBSTA), by Article 9, and the Subsidiary Body for Implementation (SBI), by Article 10. These bodies advise the COP.

. The SBSTA's task is to provide the COP "with timely advice on scientific and technological matters relating to the Convention".

. The SBI's task is to assist the COP "in the assessment and review of the effective implementation of the Convention"

The Secretariat

. The secretariat, also known as the Climate Change Secretariat, services the COP, the SBs, the Bureau and other bodies established by the COP.

Other Bodies

. Other bodies have been set up by the COP to undertake specific tasks. These bodies report back to the COP when they complete their work

. COP 1 established two ad hoc groups to conduct negotiations on specific issues.

. COP 11 established the "Dialogue" to exchange experiences and analyse strategic approaches for long-term cooperative action to address climate change.

œ The UNFCCC, signed in 1992 at the United Nations Conference on Environment and Development is also known as the Earth Summit, the Rio Summit or the Rio Conference

œ The UNFCCC entered into force on March 21, 1994, and has been ratified by 197 countries.

œ The World Meteorological Organization (WMO) and United nations Environment Programme (UNEP) established the Intergovernmental Panel on Climate Change (IPCC) in 1988, to assess the magnitude and timing of changes, estimate their impacts, present strategies for how to respond and to provide an authoritative source of up-to-date interdisciplinary knowledge on climate change.

Objective

œ According to Article 2, the Convention's ultimate objective is "to achieve, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

œ This objective is qualified in that it "should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner".

◉ ANALYSIS

Why CoP 25 is a failure?

œ The key deliverables from the 25th Conference of Parties (CoP 25) to the United Nations Framework Convention on Climate Change (UNFCCC) in Madrid (originally scheduled in **Santiago, Chile**) were two-fold:

œ **Rules under Article 6** of the Paris Agreement, which deals with carbon trading or carbon markets

œ The creation of a financial mechanism dedicated to **loss and damage**

With some caveats, CoP 25 failed to deliver on these requirements. Reasons for this are:

œ No Consensus on Rules on carbon market

> There was no consensus on rules under Article 6.

> The European Union (EU) and Switzerland held that the lack of consensus on rules would not prevent the operation of carbon markets.

> They are both relying on Article 6.2 of the Paris Agreement, which deals with bilateral and mini-multilateral markets.

> This is in contrast with Article 6.4, which creates a centralised, global market — the Sustainable Development Mechanism, which effectively succeeds the Clean Development Mechanism under the Kyoto Protocol. It is clear that the Article 6.4 market cannot operate without consensus on rules.

> Article 6.2 is a little different. It does not create a market. It regulates bilateral and mini-multilateral markets, and it does so indirectly. It sets up conditions under which credits from these markets can be used to achieve a country's national targets (nationally determined contributions, or NDCs).

œ Lack of Clarity on Loss and Damage

> Loss and damage refers to the unavoidable, irreversible impacts of climate change, where mitigation has failed and adaptation is not possible.

> It is important to distinguish it from adaptation, particularly, because while some 'new and additional' finance was committed to adaptation in the Paris Decision, loss and damage has not been similarly addressed yet.

> Financial support is one of the work-streams of the **Warsaw International Mechanism** on Loss and Damage (WIM), which was set up in 2013. Work on this front has remained stagnant for six years, and vulnerable countries and activists were clear that COP 25 needed to establish secure new and additional finance for loss and damage.

> The debate coming into this CoP was initially centered on whether this finance would take the form of:

. A finance arm of the WIM — opposed by developed countries because they consider it an admission of liability for climate change

. A financing 'window' under the Green Climate Fund (GCF) — opposed by developing countries because it would risk diluting the distinction between loss and damage and adaptation, and effectively reducing the amount of finance available for both

India's mixed role in CoP 25

œ India played a mixed role at the recently concluded 25th Conference of Parties (CoP 25) to the United Nations Framework Convention on Climate Change at Madrid.

œ Union Minister of Environment, Forest and Climate Change Prakash Javadekar emphasised the transition of the Clean Development Mechanism (CDM) credits earned under the Kyoto Protocol to the Paris Agreement. He effectively demanded the carryover of the untraded emission reduction certificates held by Indian companies (estimated at 750 million Certified Emissions Reductions or CERs), which they can sell to raise funds.

œ On the question of 'loss and damage', the minister urged developed countries to give financial teeth to the Warsaw International Mechanism on Loss and Damage (WIM). The Warsaw Mechanism has been resisted by these countries due to their paranoia (officially enshrined) that the provision of finance would imply admission of legal liability.

œ India played a strong role in critiquing the developed world's continuing poor record on climate action.

œ India also took a lead in calling for more finance for developing countries for climate action, with the minister emphasising that "not even 2 per cent" of the promised "$1 trillion in the last 10 years" had been delivered.

Conclusion

œ It is crucial that India continue to push developed countries in this fashion as the entire global climate action framework has been put in jeopardy by the inaction of big polluters.

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SECTION: B
(PRELIMS)
CURRENT AFFAIRS

THE ASIATIC LION CENSUS IS SCHEDULED TO TAKE PLACE

⦿ CONTEXT

- **It is scheduled to take place in May 2020. Around 8,000-10,000 cameras will be used to carry out the 2020 lion census in Gujarat, the last abode of the Asiatic lion.**

⦿ ABOUT

- For the first time, the expertise of Wildlife Institute of India (WWI) will be perused in the Census.
- The WWI had sent a proposal to the Gujarat government for finalizing the modalities of the Census.
- In 2015 Lion Census, it had counted 523 lions in the state. The number has expected to rise with internal assessments of the forest department which indicates that the population may have crossed the 1000 mark.

About Asiatic lions

- They belong to the category of Pantherine cats.
- The Asiatic Lions in Gujarat is restricted to Gir National Park in the state.
- It is listed as 'Endangered' under the IUCN Red List.
- It is listed in Schedule-I of the Wildlife (Protection) Act, 1972.
- In the initial stage, the lions were spread from the east of the Indus River to West Bengal and also to Narmada river in Central India.
- Until the 19th century, it occurred in Saudi Arabia,, eastern Turkey, Iran, Mesopotamia.
- Since the turn of the 20th century, it is restricted to the Gir Forest National Park and surrounding areas.
- The lion is one of five pantherine cats inhabiting India, along with the Bengal tiger (P. tigris tigris), Indian leopard (P. pardus fusca), snow leopard (P. uncia) and clouded leopard (Neofelis nebulosa).
- It was also known as the "Indian lion" and the "Persian lion".

Gir National Park and Wildlife Sanctuary

- It is also known as Sasan Gir, a forest and wildlife sanctuary near Talala Gir in Gujarat, India.
- It is part of the Kathiawar-Gir dry deciduous forests ecoregion.
- The seven major perennial rivers of the Gir region are Hiran, Shetrunji, Datardi, Shingoda, Machhundri, Godavari and Raval.
- The four reservoirs of the area are at four dams, one each on Hiran, Machhundri, Raval and Shingoda rivers, including the biggest reservoir in the area, the Kamleshwar Dam, dubbed 'the lifeline of Gir'.

Asiatic Lion Conservation Project

- It has been launched by the Ministry of Environment, Forest and Climate Change with an aim to protect and conserve the world's last ranging free population of Asiatic Lion and its associated ecosystem.
- The project activities is envisaged in a manner to cause habitat improvement, scientific interventions, disease control and veterinary care supplemented with adequate eco development works for the fringe population in order to ensure a stable and viable Lion population in the Country.
- It is a 3 year-long conservation project launched in 2018

'EBKRAY' - ONLINE AUCTION PLATFORM FOR ASSETS ATTACHED BY BANKS

⊙ **CONTEXT**

- Recently, Union Finance Minister launches 'eBkray' auction platform for assets attached by banks.

⊙ **ABOUT**

- **eBkray is an e-auction platform to enable online auction of attached assets by banks.**

Indian Banks Auctions Mortgaged Properties Information (IBAPI) portal

. It is an initiative of Indian Banks Association under the policy of the Department of Financial Services, Ministry of Finance to provide a platform to provide details of mortgaged properties to be auctioned online by Banks, starting with PSBs.

. The eBkray platform provides navigational links to all **PSB e-auction sites**, property search feature and presents single-window access to information on properties up for e-auction, comparison of similar properties, and also contains videos and photographs of the uploaded properties.

. Buyers can use IBAPI portal to search and get properties details and participate in the auction process. Presently 21 banks are onboard on this portal

. Currently, there are 2,457 residential, 576 commercial, 333 industrial and 18 agricultural properties are available on eBkray platform among others.

. PSBs have attached assets worth over Rs 2.3 lakh crore in the last three fiscal years.

Objectives of eBkray

. To enhance user experience through seamless access to information by the search based on the type and location of the property put up for e-auction by the banks in India.

. To enable online auction of attached assets transparently and cleanly for the improved realization of value by banks.

. It will provide navigational links to all Public Sector Banks (PSBs) e-auction sites, property search feature and will present single-window access to information on properties up for e-auction, comparison of similar properties, as well as contains videos and photographs of uploaded properties.

. The platform also helps the buyer to easily navigate to the bank e-auction site after a notified property is selected. It also helps the user to search property using State-wise, District-wise and bank-wise details.

Need

. There has been information asymmetry when bank attached assets are auctioned which will come to an end with the launch eBkray.

. Simplify auction process

⊙ **CONCLUSION**

- The e-auction platform is now linked on Indian Banks Auctions Mortgaged Properties Information (IBAPI) portal and guidelines have been made available which will help banks in the release of cash trapped in mortgaged assets. It will also bring transparency in the process.

NATIONAL INFRASTRUCTURE PIPELINE

◉ **CONTEXT**

- **Finance Minister has released Report of the Task Force on National Infrastructure Pipeline for 2019-2025. She has unveiled a `102 lakh crore project which is in accordance with the government's vision to make India a $5 trillion economy by 2024-25.**

◉ **ABOUT**

- It is estimated that India would need to spend $4.5 trillion on infrastructure by 2030 to sustain its growth rate.

. The endeavour of the National Infrastructure Pipeline (NIP) is to make this happen in an efficient manner.

. These projects are on top of Rs 51 lakh crore spent by the Centre and the states during the last six years and the new pipeline consists of 39 per cent projects each by the Centre and states and the balance by 22 per cent by private sector.

Benefits of National Infrastructure Pipeline

. Well-planned NIP will enable more infra projects, grow businesses, creates job, improve ease of living and provide equitable access to infrastructure for all, making growth more inclusive.

. Well- developed infrastructure enhances level of economic activity, creates additional fiscal space by improving revenue base of the government, and ensures quality of expenditure focussed in productive areas.

. Provides better view of project supply, provides time to be better prepared for project bidding, reduces aggressive bids/failure in project delivery, ensures enhanced access to sources of finance as a result of increased investor confidence.

Features of National Infrastructure Pipeline

. To achieve this objective, a Task Force has been constituted to draw up the National Infrastructure Pipeline (NIP) for each of the years from FY 2019-20 to FY 2024-25 with the approval of the Finance Minister.

. The Task Force is chaired by Secretary, DEA with CEO (NITI Aayog), Secretary (Expenditure), Secretary of the Administrative Ministries, and Additional Secretary (Investments), DEA as members and Joint Secretary (IPF), DEA as Member Secretary.

. Total project capital expenditure in infrastructure sectors in India during the fiscals 2020 to 2025 is projected at over Rs 102 lakh crore.

Sector-wise:

. According to the Task Force, Government has planned to increase participation of private sector in freight traffic. It will add 30% of net cargo by 2025 and will increase private trains to 500.

. Irrigation and rural infrastructure projects would account for   7.7 lakh crore each.   3.07 lakh crore would be spent on industrial infrastructure. Agriculture and social infrastructure would account for the rest.

. Road projects will account for   19.63 lakh crore while another   13.68 lakh crore would be for railway projects.

. Port projects would see spending of   1 lakh crore and airports another   1.43 lakh crore.   16.29 lakh crore would be spent on urban infrastructure and   3.2 lakh crore in telecom projects.

. According to the sector-wise break-up of projects made available by the Finance Ministry,   24.54 lakh crore investment will flow in the energy sector, and of that   11.7 lakh crore would be in just the power sector.

.   42 lakh crore NIP projects which are in the implementation stage now include expressways, national gas grid and PMAY-G.

DRAKE PASSAGE AND "THE IMPOSSIBLE ROW" PROJECT

◉ **CONTEXT**

- In a first, six rowers from four countries crossed the Drake Passage, in just under two weeks after pushing off from the southern tip of South America.

◉ **ABOUT**

- The Passage is located between Cape Horn at the tip of South America and the Antarctic Peninsula.

. This is the first completely human-powered crossing of the passage.

. The project was dubbed "The Impossible Row", for which the team departed from Cape Horn in Chile and arrived at Primavera Base on San Martin Land on the Antarctic Peninsula.

What is the Drake Passage?

. The passage is named after Sir Francis Drake, who was the first Englishman to circumnavigate the globe.

. The passage has an average depth of about 11,000 feet, with deeper regions going up to over 15,600 feet near the northern and southern boundaries.

Why is it considered so treacherous?

. The Drake Passage is considered one of the roughest waterways in the world because here, layers of cold seawater from the south and warm seawater from the north collide to form powerful eddies, which when combined with strong winds and storms can be treacherous for those attempting to navigate it.

. It is also the narrowest stretch in the Southern Ocean and spans approximately 800 km between the southern tip of South America and the northern tip of the West Antarctic Peninsula.

. NASA describes the waters of the passage as "notoriously turbulent, unpredictable, and frequented by icebergs and sea ice.

WHAT IS ANNULAR SOLAR ECLIPSE

◉ **CONTEXT**

- The last solar eclipse of this year took place in December, which will fall over the eastern hemisphere of the Earth and be visible from India, Saudi Arabia, Qatar, Malaysia, Oman, Singapore, Sri Lanka, Mariana Islands and Borneo among a few other places.

◉ **ABOUT**
- An eclipse happens when the moon while orbiting the Earth, comes in between the sun and the Earth, due to which the moon blocks the sun's light from reaching the Earth, causing an eclipse of the sun or a solar eclipse.
- It was visible from India, Saudi Arabia, Qatar, Malaysia, Oman, Singapore, Sri Lanka, Mariana Islands and Borneo among a few other places.

About annular solar eclipse

- There are three types of eclipses: one is a total solar eclipse, which is visible only from a small area on Earth.
- People who are able to view the total solar eclipse are in the centre of the moon's shadow as and when it hits the Earth.
- A total solar eclipse happens when the sun, moon and Earth are in a direct line.
- The second type of a solar eclipse is a partial solar, in which the shadow of the moon appears on a small part of the sun.
- The third kind is an annular solar eclipse, which happens when the moon is farthest from the Earth, which is why it seems smaller.
- In this type of an eclipse, the moon does not block the sun completely, but looks like a "dark disk on top of a larger sun-colored disk" forming a "ring of fire".

Additional information

- Furthermore, during a solar eclipse the moon casts two shadows on the Earth, the first one is called the umbra, which gets smaller as it reaches the Earth.
- The second one is called the penumbra, which gets larger as it reaches the Earth.
- According to NASA, people standing in the umbra see a total eclipse and those standing in the penumbra see a partial eclipse.
- One of the reasons that NASA studies solar eclipses is to study the top layer of the sun called the corona.
- During an annular eclipse, NASA uses ground and space instruments to view this top layer when the sun's glare is blocked by the moon.

Where can the annular solar eclipse be viewed from In India?

- Some of the areas in India from where the annular solar eclipse can be viewed include Kannur, Ooty, Palakkad, Kozhikode, Erode Trichy, Madurai and Karaikudi among a few others.

Is it safe to view solar eclipses?

- NASA maintains that the sun can be viewed safely using the naked eye only during a total eclipse, while during partial and annular solar eclipses, the sun should not be viewed without proper equipment and techniques.
- Not using proper methods and equipment for viewing can cause permanent eye damage or severe visual loss.
- Safety equipment includes eclipse glasses and using appropriate solar filters for covering binoculars, telescopes and cameras.

BATTLE OF KOREGAON

◉ **CONTEXT**
- **202nd Anniversary of Battle of Koregaon Bhima**

◉ **ABOUT**
- Bhima-Koregaon, a small village in Pune district of Maharashtra, has a rich Maratha history. Two hundred years ago, on January 1, 1818, a few hundred Mahar soldiers of the East India Company, led by the British, defeated the massive Peshwa army, led by Peshwa Bajirao II, in Koregaon.

. Legend has it that about 500 Mahar soldiers under the East India Company clashed with a 25,000-strong army of Peshwa Bajirao II.

. Mahars, at this point, were considered an untouchable community, and were not recruited in the army by the peshwas.

. This battle has, since, attained legendary stature in Dalit history.

. The Dalits who follow BR Ambedkar view this battle as a victory of Mahars over the injustice and torture meted out to them by the Brahminical Peshwas.

So What Happens There Every January?

. On January 1, 1927, Bhimrao Ambedkar started the ritual of holding a commemoration at the site of this pillar, one that is repeated every year.

. It's the Ambedkarite Dalits who gather at Bhima Koregaon to pay their respect at the Vijay Sthamb (victory pillar).

. The pillar was erected by the East India Company in memory of those who fought the battle. The names of the Mahar soldiers who unknowingly brought an end to the Peshwa rule in 1818 are inscribed on the pillar.

. Dalit Ambedkarites draw inspiration from this victory at Bhima Koregaon. Ever since Bhima-Koregaon Ranstambh Seva Sangh (BKRSS) was formed, they regard the stambh or pillar as a site of their valour and a symbol of their place in the political diaspora.

. Those protesting the commemoration of the Koregaon Bhima battle victory are miffed because it basically celebrates the "British victory" against the Marathas.

Why Bhima Koregaon is seen as a Dalit symbol?

. The battle has come to be seen as a symbol of Dalit pride because a large number of soldiers in the Company force were the Mahar Dalits.

. Since the Peshwas, who were Brahmins, were seen as oppressors of Dalits, the victory of the Mahar soldiers over the the Peshwa force is seen as Dalit assertion.

. Thus, in the first battle and the last battle (1757-1818) it was the Untouchables who fought on the side of the British and helped them to conquer India.

Arguments against it

. Ambedkar's pride in Bhima Koregaon belonged very much to that age. Ambedkar was a very original and provocative thinker. Some of his views were quite cogent but belonged to those very times.

. Many of his views on Muslims and Christians would be totally unacceptable in today's India.

. It was not as if the British were kind to the Mahars.

. The British had abolished the Mahar regiment after 1857 uprising. They started preferring upper castes that they called 'martial races'.

. The Mahar regiment was restarted only during the Second World War.

BUDAPEST CONVENTION

⦿ **CONTEXT**
- **Recently, United Nations approved a Russian-led resolution that aims to create a new convention on cybercrime when Budapest Convention is already there. India has voted in its favour. Russia has opposed the Budapest Convention, arguing that giving investigators access to computer data across borders violates national sovereignty.**

⦿ **ABOUT**
- The **Council of Europe's (CoE) Cybercrime Convention is also known as the Budapest Convention.** It was open for signature in **2001** and **came into force in 2004.**

- The **Council of Europe's (CoE) Cybercrime Convention is also known as the Budapest Convention.** It was open for signature in **2001** and **came into force in 2004**.

- The convention is the **sole legally binding international multilateral treaty on cybercrime.** It coordinates cybercrime investigations between nation-states and criminalizes certain cybercrime conduct.

. It serves as a guideline for any country developing comprehensive national legislation against Cybercrime and as a framework for international cooperation between state parties to this treaty.

. The Budapest Convention is supplemented by a Protocol on Xenophobia and Racism committed through computer systems.

. India is not a signatory to Budapest Convention.

Significance

. Almost all stakeholders agree that the current form of cross-border data sharing for law enforcement through the Mutual Legal Assistance Treaty (MLAT) is insufficient for the digital age. However, there is an ongoing debate whether to revamp MLAT or form an entirely new system for cybercrimes in the form of this Convention.

. This Convention has eagerly called for Indian participation since its formation in 2001, but India has decided not to be a party to it.

Russia-led Resolution to replace Budapest Convention

. The Russian proposal entitled "Countering the use of information and communications technologies for criminal purposes" was recently put forth in the United Nations General Assembly (UNGA).

. This recent UN proposal follows previous Russian initiatives, including the "Draft United Nations Convention on Cooperation in Combating Cybercrime" in 2017 to develop a UN convention on cybercrime.

. The Russian proposal calls for creation of a committee that will convene in August 2020 in New York in order to establish a new treaty through which nation-states can coordinate and share data to prevent cybercrime.

. This draft Convention goes far beyond what the Budapest Convention allows for regarding cross-border access to data, including limiting the ability of a signatory to refuse to provide access to requested data.

. This is the reason why several human rights groups criticize the UN proposal as a way to extend a Chinese and Russian form of internet governance, or the so-called "closed Internet" or "state-controlled internet."

. If this resolution will be passed by the UNGA, it will become the second international convention on cybercrime.

. Russia and China question the Budapest Convention on the grounds of national sovereignty issues, thereby proposing their own treaty at the UN.

India's Stand

. India maintained its status as a non-member of the Europe-led Budapest Convention. Although, India voted in favour of a Russian-led UN resolution to set up a separate convention.

. According to the Intelligence Bureau (IB), data sharing with foreign law enforcement agencies infringes on national sovereignty of India.

. India has also previously argued that it will not sign onto the Budapest treaty since it was drafted without its participation.

◉ **CONCLUSION**

- The Budapest Convention was drafted by the Council of Europe. Other countries have joined, including the United States and Japan. A new U.N. treaty on cybercrime could render the Budapest Convention obsolete, further alarming rights groups. Moreover, the concerns raised by countries like Russia, China and India should be resolved to prevent mandatory information sharing under Budapest Convention.

NITI AAYOG HAS RELEASED THE 2019 SDG INDIA INDEX

⊙ **CONTEXT**

- **NITI Aayog has released the second edition of the Sustainable Development Goals (SDG) India Index, which comprehensively documents the progress made by India's States and Union Territories towards achieving the 2030 SDG targets.**

⊙ **ABOUT**

- The SDG India Index—which has been developed in collaboration with the Ministry of Statistics and Programme Implementation (MoSPI), United Nations in India, and Global Green Growth Institute—was launched by NITI Aayog.

. NITI Aayog has committed itself to building capacities and monitoring progress at the state level.

. Close coordination with the states over the next 5 years will further accelerate SDG localization and ensure greater improvement.

. In 2020, the world enters the final decade for achieving the SDGs—the 'Decade for Action'. And the Intergovernmental Panel on Climate Change tells us that we have 12 years left to save the planet from the worst effects of climate change.

Major Outcomes of the index

. India's composite score has improved from 57 in 2018 to 60 in 2019, thereby showing noticeable progress.

. The maximum gains been made in Goals 6 (clean water and sanitation), 9 (industry, innovation, and infrastructure) and 7 (affordable and clean energy).

. All three states that were in the 'Aspirant' category (with score/s in the range of 0–49)—Uttar Pradesh, Bihar and Assam—have graduated to the 'Performer' category (50–64).

. Five states—Andhra Pradesh, Telangana, Karnataka, Goa, and Sikkim—moved up from the 'Performer' category to the 'Front Runner' category (65–99).

. Kerala achieved the first rank in the composite SDG Index with a score of 70, followed by Himachal Pradesh at 69.

. Andhra Pradesh, Telangana, and Tamil Nadu ranked at the third position with the score of 67.

. The biggest improvers since 2018 are UP (which has moved from the 29th position to the 23rd), Orissa (23rd to 15th), and Sikkim (15th to 7th). While Bihar improved its score from 48 in 2018 to 50 in 2019, it still has a long way to go in achieving the targets.

Other information

. The world is now in the fifth year of the SDG era. India's National Development Agenda is mirrored in the SDGs. India's progress in the global Goals is crucial for the world as the country is home to about one-sixth of the world's population.

. The SDG India Index 2019 tracks progress of all States and UTs on 100 indicators drawn from the MoSPI's National Indicator Framework (NIF).

. The process of selection of these indicators included multiple consultations with Union ministries/departments and States/UTs.

. The SDG India Index 2019 is more robust than the first edition on account of wider coverage of goals, targets, and indicators with greater alignment with the NIF.

. A composite score was computed in the range of 0–100 for each State/UT based on its aggregate performance across 16 SDGs.

. The higher the score of a State/UT, the closer it is towards achieving the targets.

Classification criteria based on SDG India Index score is as follows

- Aspirant: 0–49
- Performer: 50–64
- Front Runner: 65–99
- Achiever: 100

SANSAD ADARSH GRAM YOJANA

⦿ **CONTEXT**

- **Five years down the line, official data shows that the progress of SAGY has been sluggish. About two-thirds of Lok Sabha MPs are yet to select gram panchayats under Phase-4 of the scheme.**

⦿ **ABOUT**

- It has been launched in 2014 as a village development project, under which each Member of Parliament will take the responsibility of developing physical and institutional infrastructure in three villages by 2019.
- It was initiated to bring the member of parliament of all the political parties under the same umbrella while taking the responsibility of developing infrastructure in villages and turn them into model villages
- The goal was to develop three Adarsh Grams by March 2019, of which one would be achieved by 2016. Thereafter, five such Adarsh Grams (one per year) will be selected and developed by 2024.
- The distinct feature of this Yojana is that it is demand driven and inspired by society.

Funding for the scheme

- No new funds are allocated to this Yojana and funds may be raised through :
    - œ Funds from existing schemes, such as the Indira Awas Yojana, Pradhan Mantri Gram Sadak Yojana, Mahatma Gandhi National Rural Employment Guarantee Scheme, and Backward Regions Grant Fund, etc.,
    - œ The Member of Parliament Local Area Development Scheme (MPLADS),
    - œ The gram panchayat's own revenue,
    - œ Central and State Finance Commission Grants, and
    - œ Corporate Social Responsibility funds.

Identification of Adarsh Gram

- A Gram Panchayat would be the basic unit.
- It will have a population of 3000-5000 in plain areas and 1000-3000 in hilly, tribal and difficult areas.
- In districts where this unit size is not available, Gram Panchayats approximating the desirable population size may be chosen.
- The MP would be free to identify a suitable Gram Panchayat for being developed as Adarsh Gram, other than his/her own village or that of his/her spouse.

Values of SAGY

- Adopting people's participation as an end in itself – ensuring the involvement of all sections of society in all aspects related to the life of village, especially in decision-making related to governance

- Adhering to Antyodaya – enabling the "poorest and the weakest person" in the village to achieve well being
- Affirming gender equality and ensuring respect for women
- Guaranteeing social justice
- Instilling dignity of labour and the spirit of community service and voluntarism
- Promoting a culture of cleanliness
- Living in consonance with nature – ensuring a balance between development and ecology
- Preserving and promoting local cultural heritage
- Inculcating mutual cooperation, self-help and self-reliance

Objectives of SAGY

- To trigger processes which lead to holistic development of the identified Gram Panchayats
- To substantially improve the standard of living and quality of life of all sections of the population through

  œ Improved basic amenities

  œ Higher productivity

  œ Enhanced human development

  œ Better livelihood opportunities

  œ Reduced disparities

  œ Access to rights and entitlements

  œ Wider social mobilization

  œ Enriched social capital

- To generate models of local level development and effective local governance which can motivate and inspire neighbouring Gram Panchayats to learn and adapt
- To nurture the identified Adarsh Grams as schools of local development to train other Gram Panchayats.

Recent Issues

- About two-thirds of Lok Sabha MPs are yet to select gram panchayats under Phase-4 of the scheme. The total strength of both Houses is about 790 which include elected as well as nominated members.
- In Phase-1 of SAGY, 703 MPs had adopted gram panchayats but that number went down to 497 in Phase-2 and 301 in Phase-3, showing a gradual decline in subsequent phases.
- Since the launch of the scheme on October 11, 2014, less than two months after the Prime Minister's announcement, only 1,753 gram panchayats have been selected across four phases, way below the expected figure.
- According to data available on the Ministry of Rural Development, only 252 MPs have adopted gram panchayats under Phase-4 of SAGY — 208 members of Lok Sabha and 44 members of Rajya Sabha.

PM – KISAN SCHEME

◉ **CONTEXT**

- **Good monsoon may have laid the foundation for record foodgrain production, but it was the launch of schemes like PM-Kisan that has set the ball rolling for structural reforms in the agriculture sector to achieve the target of doubling farmers' income.**

◉ **ABOUT**

- Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) is a Central Sector scheme with 100% funding from Government of India.

. Under the Scheme an income support of Rs.6000/- per year is provided to all farmer families across the country in three equal installments of Rs.2000/- each every four months.

. The entire responsibility of identification of beneficiary farmer families rests with the State / UT Governments.

. The fund is directly transferred to the bank accounts of the beneficiaries.

. Farmers covered under the Exclusion Criteria of the Operational Guidelines are not eligible for the benefit of the Scheme.

. For enrollment, the farmer is required to approach the local patwari / revenue officer / Nodal Officer (PM-Kisan) nominated by the State Government.

. The Common Service Centres (CSCs) have also been authorized to do registration of the farmers for the Scheme upon payment of fees.

. Farmers can also do their self-registration through the Farmers Corner in the portal.

. Farmers can also edit their names in PM-Kisan database as per their Aadhaar database / card through the Farmers Corner in the portal.

. Farmers can also know the status of their payment through the Farmers Corner in the portal.

Major Objective of the scheme

. With a view to provide income support to all land holding eligible farmer families, the Government has launched PM-KISAN.

. The scheme aims to supplement the financial needs of the farmers in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income.

Definition of farmer's family

. A landholder farmer's family is defined as "a family comprising of husband, wife and minor children who own cultivable land as per land records of the concerned State/ UT".

. The existing land-ownership system will be used for identification of beneficiaries for calculation of benefit.

Setting up of Project Monitoring Unit (PMU)

. A Project Monitoring Unit (PMU) at Central level will be set up in DAC&FW in the form of a Society registered under the Societies Registration Act, 1860.

. This PMU shall be tasked with the responsibility of overall monitoring of the scheme and shall be headed by Chief Executive Officer (CEO).

. PMU shall also undertake publicity campaign (Information, Education and Communication-IEC).

. Each State/UT Government will designate a Nodal Department for implementation of the scheme and coordinating with Central Government with regard to implementation of Income Support Scheme.

SWACHH SURVEKSHAN 2020

◉ **CONTEXT**
• **Recently, government released the Swachh Survekshan League in New Delhi.**

◉ **ABOUT**
• **Swachh Survekshan League 2020** (SS League 2020) was launched for Housing and Urban Affairs, Government of India.

. **Objective:** SS League 2020 was introduced with the objective of sustaining the on-ground performance of cities along with continuous monitoring of service level performance when it comes to cleanliness.

. **SS 2020 parameters:** The focus of the survey was on waste water treatment, faecal sludge management. The survey also focused on implementation of ODF+, water plus and ODF+ and ODF++ protocols of the ministry of housing and urban affairs.

. **Results**: In the category of 10 lakh plus population, Indore secured first place. Indore has remained in first place for the last three years. Following Indore, Bhopal and Surat are in second and third places respectively. In the category of population between one lakh and 10 lakhs, Jamshedpur was in 1st spot following New Delhi and Khargone.

. **Swachh Survekshan (Cleanliness survey)** is an annual survey of cleanliness, hygiene and sanitation in cities and towns across India.

œ It was launched as part of the Swachh Bharat Abhiyan, which aims to make India clean and free of open defecation by 2 October 2019.

œ SS League 2020 is the fifth edition of the annual urban cleanliness survey conducted by MoHUA.

œ It is a cleanliness survey that helps in competitive federalism.

œ The first survey was undertaken in 2016 and covered 73 cities; by 2019 the survey had grown to cover 4237 cities and was said to be the largest cleanliness survey in the world.

œ The surveys are carried out by **Quality Council of India.**

œ The annual cleanliness survey aims to encourage large scale participation of citizens in cleanliness drives.

œ It aims to ensure sustainability of initiatives taken towards garbage free and open defecation free cities.

œ It aims to create awareness among all sections of the society regarding the importance of working together towards making towns and cities a better place to live in.

œ The survey also aims to foster healthy competition among towns and cities to improve their service delivery to citizens, towards creating cleaner cities.

107TH INDIAN SCIENCE CONGRESS

◉ **CONTEXT**
• **Recently, PM inaugurates the 107th Indian Science Congress at University of Agricultural Sciences, Bengaluru.**

◉ **ABOUT**
• The theme of **107th Indian Science Congress is "Science and Technology: Rural Development".**

Facts about Science Status in the world

- India now stands at 3rd position globally, in the number of Peer-reviewed Science and Engineering Publications.
- India has improved its ranking at Innovation Index to 52.
- Government programmes have created more incubators in the last 5 years.
- Technology is being harnessed at a large scale to achieve the objective of Good Governance.

. The Congress is to be hosted by Department of Science and Technology.

. The event acts as a common platform for researchers, scientists and academicians. Around 28 plenary sessions are to be held during the event. It includes leading technologies such as Climate Smart Agriculture for food security, challenges in cancer drugs, nano materials for energy, solutions for oil and gas, environment and health care. For the first time, Farmers Science Congress is to be held on the sidelines of Indian Science

. **Farmers Science Congress:** The congress will cover themes of innovation on integrated agriculture. It will also focus on themes of doubling farmers' income, farmer empowerment, conservation, bio diversity, etc. The experts from ICAR (Indian council of Agricultural Research) and UAS (University of Agricultural Sciences) will also participate at the event along with the farmers whose innovative methodologies have brought in huge harvests.

. **Children Science Congress**: The Children Science Congress also called the "Rashtriya Kishre Vaiguanik Sammelana" will also be held alongside 107th India Indian Science Congress. The aim of the congress is to motivate students and increase their participation in scientific and technological fields. Apart from these, women science congress will also be held showcasing women achievements. Also, VC Science congress will be held to address the need of higher education institutions. The event will also hold Science Communicators Meet.

Origin of Indian Science Congress Association

. The Indian Science Congress Association (ISCA) owes its origin to the foresight and initiative of two British Chemists, namely, Professor J. L. Simonsen and Professor P.S. MacMahon.

. It occurred to them that scientific research in India might be stimulated if an annual meeting of research workers somewhat on the lines of the British Association for the Advancement of Science could be arranged.

. The first meeting of the Congress was held in January 1914 at the premises of the Asiatic Society, Calcutta.

What are the main objectives of the ISCA?

- To advance and promote the cause of science in India
- To hold an annual congress at a suitable place in India
- To publish such proceedings, journals, transactions and other publications as may be considered desirable.
- To secure and manage funds and endowments for the promotion of Science including the rights of disposing of or selling all or any portion of the properties of the Association.
- To do and perform any or all other acts, matters and things as are conductive to, or incidental to, or necessary for, the above objects.

◉ **CONCLUSION**
- The events like Indian Science Congress will help in auguring scientific temper in the younger population and it will also help India in scaling higher feats.

ADITYA –ISRO'S SOLAR MISSION

◉ **CONTEXT**

- **Prime Minister Narendra Modi recently highlighted in Mann Ki Baat program that ISRO is planning to launch its first Sun Mission Aditya L1. It is an ambitious plan of Indian Space Research Organisation (ISRO).**

◉ **ABOUT**

- Aditya - L1 is the first Indian mission to study the outermost region of the sun, called corona.

- **Aditya-1 to Aditya L-1 Mission:** The concept of the Aditya-1 mission was to carry 400 kg of the payload called Visible Emission Line Coronagraph (VELC). Earlier, this mission was planned to launch in an 800 km low earth orbit. But, it was found that a satellite placed in a halo orbit around the Lagrangian Point 1 (L1) can give a big advantage of viewing Sun. Thus, this mission was renamed **Aditya L-1 Mission.**

- The temperature of the solar corona goes beyond million degrees. From the ground, the corona could be seen only during total solar eclipses mainly due to the bright solar disc and the scattering of the sunlight by the earth's atmosphere. To mask the bright solar disc and study the corona, one has to go beyond the atmosphere.

Objectives

- The major scientific objectives of Aditya-1 mission are to achieve a fundamental understanding of the physical processes that heat the solar corona; accelerate the solar wind; and produce coronal mass ejections (CMEs).

Features of Aditya L1

- There will be six scientific payloads on this **400 kg satellite.**
- It will be placed in the **halo orbit** near the **L1 point of the Sun-Earth system**.
- The Aditya-L1 can now provide observations of the Sun's photosphere (soft and solid X-rays), chromosphere (UV) and the corona (visual and NIR) along with additional experiments.
- The 20 cm coronagraph, having a field of view of corona from 1.05 R to 3.0 R, will use an off axis parabolic mirror. The payload will have three CCD detectors system with a capability of simultaneous imaging in 6374 Å, 5303 Å and in 5800 Å for continuum/ broadband.

6 Payloads of Aditya L-1 Mission

- **Visible Emission Line Coronagraph (VELC):** It will help to study the origin of Coronal Mass Ejection, diagnostic parameters of solar corona and its dynamics.
- **Solar Ultraviolet Imaging Telescope (SUIT):** This payload will help to find out the image of spatially resolved Solar Photosphere as well as to measure solar irradiance variations.
- **Plasma Analyser Package for Aditya (PAPA):** It has been designed to understand the energy distribution and composition of solar winds.
- **Solar Low Energy X-ray Spectrometer (SoLEXS):** It will monitor X-ray flares of Solar system to study the heating system of solar corona.
- **High Energy L1 Orbiting X-ray Spectrometer (HEL1OS):** It will help to observe the various dynamic actions happen in solar corona to provide an estimate of solar energy.
- **Magnetometer:** This payload will monitor and measure the magnitude of the nature of Interplanetary Magnetic Field in the solar system.

◉ **CONCLUSION**

- ISRO's big plans for 2020 are not just Chandrayaan 3 and Gaganyaan but Aditya mission too which will place India in a distinguished class of nations in space research and technology.

AVANGARD HYPERSONIC MISSILE SYSTEM

◉ **CONTEXT**

- Recently, Russia's first regiment of Avangard hypersonic missiles has been put into service sending shock waves around the world.

◉ **ABOUT**

- **Avangard is a hypersonic glide vehicle developed by Russia.** It's designed to be carried as a multiple independently targetable reentry vehicle (MIRV) payload by the UR-100UTTKh, RS-26 Rubezh and RS-28 Sarmat super-heavy ICBM.

. **Avangard can presumably reach speeds up to Mach 20** and can be used to deliver nuclear and conventional payloads.

. It's designed to sit atop an intercontinental ballistic missile (ICBM) and, once launched, it uses aerodynamic forces to sail on top of the atmosphere.

. Russia has successfully tested the missile at least twice and it is expected to enter service in late 2018 or early 2019.

. During the annual state-of-the-nation **in March 2018**, the President of Russia, Vladimir Putin unveiled the Avangard and described the Hypersonic Missile as one of the six next-generation weapons that are under development.

. The initial research on hypersonic warheads started back in the mid-1980s at the time of the USSR or the Soviet Union which was ceased at the time of the dissolution of the Soviet Union in 1991. Later around the mid-1990s, Russia started working back on the project under the name 'Project 4202'. Since then, Russia has made around 14 reported tests of the Avangard Hypersonic Missile. **A Hypersonic Missile means that can travel at speed of above Mach 5 (Mach 5 speed is 5 times more than the speed of sound).**

Strategic Implications

. **Avangard is a strategically valuable weapon for two main reasons, its maneuverability and its versatility.**

. The weapon is capable of performing sharp maneuvers on its way to targets making it absolutely invulnerable for any missile defense system.

. It also boasts the ability to deploy countermeasures during flight allowing it to penetrate air and missile defenses virtually undetected.

. As for its versatility, Avangard can be fitted with both nuclear and conventional payloads depending on a situation. Moreover, even without an explosive payload, the precision and speed of the weapon is believed to have enough force to obliterate smaller targets, such as vehicles or bases, making it an invaluable weapon in the Russian arsenal.

◉ **CONCLUSION**

- Avangard system could penetrate current and future missile defence systems

. Not a single country possesses hypersonic weapons, let alone continental-range hypersonic weapons in the world. No doubt the US has its own hypersonic missile programme, as does China, which in 2014 said it had conducted a test flight of such as weapon.

. The announcement that Avangard is operational heralds a new and dangerous era in the nuclear arms race.

. Though Russia allowed US experts to inspect the Avangard under the rules of the 2010 New START treaty, an agreement that seeks to reduce the number of strategic nuclear missile launchers.

GAGANYAAN MISSON

⦿ **CONTEXT**

- **ISRO recently reported about four astronauts that have been identified for India's upcoming Gaganyaan mission. Gaganyaan is a crewed orbital spacecraft intended to send astronauts to space for a minimum of seven days by 2022, as part of the Indian Human Spaceflight Programme.**

⦿ **ABOUT**

- The programme will make India the fourth nation in the world to launch a Human Spaceflight Mission. So far, only the USA, Russia and China have launched human spaceflight missions.

. ISRO has developed some critical technologies like re-entry mission capability, crew escape system, crew module configuration, thermal protection system, deceleration and floatation system, sub-systems of life support system etc. required for this programme.

. GSLV Mk-III launch vehicle, which has the necessary payload capability for this mission, will be used to launch Gaganyaan.

. Two unmanned Gaganyaan missions will be undertaken prior to sending humans.

. The mission will aim to send a three-member crew to space for a period of five to seven days.

. The spacecraft will be placed in a low earth orbit of 300-400km.

. The total programme cost is expected to be less than Rs. 10,000 crores.

. With the ability to hold one oxygen cylinder, the suit will allow the astronaut to breathe in space for 60 minutes.

. The capsule will rotate around the Earth every 90 minutes, and astronauts will be able to witness sunrise and sunset.

. The three astronauts will be able to see India from space every 24 hours, while they conduct experiments on micro-gravity.

. For its return, the capsule will take 36 hours, and will land in the Arabian Sea, just off the coast of Gujarat.

. ISRO will receive assistance from the French space agency CNES, in terms of expertise various fields including space medicine, astronaut health monitoring, radiation protection and life support.

Objectives of the Mission-

. Enhancement of science and technology levels in the country

. A national project involving several institutes, academia and industry

. Improvement of industrial growth

. Inspiring youth

. Development of technology for social benefits

. Improving international collaboration

About GSLV Mk- III –

. It is a three-stage heavy-lift launch vehicle which will be used to launch Gaganyaan as it has the necessary payload capability.

. It is designed to carry 4 ton class of satellites into Geosynchronous Transfer Orbit (GTO) or about 10 tons to Low Earth Orbit (LEO).

. The powerful cryogenic stage of GSLV Mk III enables it to place heavy payloads into LEO's of 600 km altitude.

. The launcher uses two S200 solid rocket boosters to provide the huge amount of thrust required for lift off.

About ISRO-

. **Indian Space Research Organisation (ISRO)**, Indian space agency, founded in 1969 to develop an independent Indian space program. Its headquarter is in Bangalore (Bengaluru).

. LaunchvehiclesaredevelopedattheVikramSarabhaiSpaceCentreinThiruvananthapuram. Launches take place at the Satish Dhawan Space Centre on Sriharikota Island, near Chennai.

. ISRO's first satellite, Aryabhata, was launched by the Soviet Union on April 19, 1975.

. Rohini, the first satellite to be placed in orbit by an Indian-made launch vehicle (the Satellite Launch Vehicle 3), was launched on July 18, 1980.

. ISRO has launched several space systems, including the Indian National Satellite (INSAT) system for telecommunication, television broadcasting, meteorology, and disaster warning and the Indian Remote Sensing (IRS) satellites for resource monitoring and management.

. The first INSAT was launched in 1988, and the program expanded to include geosynchronous satellites called GSAT.

◉ **CONCLUSION**
- Rs. 10,000-crore mission will be a turning point in India's space journey. The mission will enable ISRO to achieve higher levels of reliability in launch and satellite technology. It will help in providing employment to 15,000 people and out of them, 861 will be from Isro.

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MISCELLANEOUS

CENTRAL EQUIPMENT IDENTIFY REGISTER

- The government has launched a web portal, 'Central Equipment Identity Register (CEIR)', to facilitate blocking and tracing of stolen/lost mobile phones in Delhi.
- At the launch, Minister for Communications, Law & Justice and Electronics & Information Technology said that mobile security should be a national priority because the mobile handset has become an important tool for all online activities.
- The web portal was first launched in Mumbai.
- The CEIR has been undertaken by the Department of Telecom (DoT) for addressing security, theft and other concerns including reprogramming of mobile handsets.
- The launch of the project in Delhi will facilitate – request for blocking of stolen or lost mobile phone by customers; blocking of such mobile phones across mobile networks; sharing of
- Traceability data with the Police; and unblocking of recovered/ found stolen or lost mobile phones.

DIVYANG FRIENDLY FEATURES IN BUSES

- Ministry of Road Transport and Highways has notified for amendments to the Central Motor Vehicles Rules for providing divyang friendly features in buses.
- The amendment provides for priority seats, signs, securing of crutches/canes/walkers, hand rail/stanchions, controls at priority seats and wheel chair entry/housing/locking arrangement for wheel chair for the divyangjan.
- Such facilities for differently abled passengers or passengers with reduced mobility will be checked and ensured at the time of Fitness Inspection for Buses.
- The amendment shall come into force on 1st March, 2020.
- The notification has been issued after duly considering the objections and suggestions received from public in respect of the said draft rules.

ISRO TO SET UP SECOND LAUNCH PORT

- Indian Space Research Organisation will establish a second launch port in Thoothukodi district in Tamil Nadu exclusively to launch small satellite launch vehicles.
- A second Vehicle Assembly Building in SDSC SHAR Sriharikota was dedicated to the nation during the year for increasing the launch frequency. As part of the enhanced outreach activity, a launch viewing gallery was operationalised in Sriharikota to facilitate viewing of launches live by the public.
- In an effort towards horizontal expansion of ISRO, Space Technology Cells, Space Technology Incubation Centres and Regional Academic Centres for Space were established during the year and many more such centres are planned in the future.
- To carry forward the industry production of space systems, ISRO incorporated New Space India Limited (NSIL), under the Department of Space and efforts in realising PSLVs from industry initiated.
- Other projects during the year include SSLV, GSLV with 4m ogive payload fairing, GSAT-20 satellite, NavIC with indigenous atomic clocks, Indian Data Relay Satellite System, Aditya-L1 and XPOSAT.

KRISHI KARMAN AWARDS

- The Prime Minister will distribute Krishi Karman Awards and Commendation Awards to states at a public meeting in Tumkur Karnataka.
- He will also give away Agriculture Minister's Krishi Karman Awards for Progressive Farmers.

- The event will also witness the release of the 3rd installment of PM Kisan (Pradhan Mantri Kisan Samman Nidhi) of Rs 2000 for the period December 2019-March 2020.
- At the same event, Prime Minister will also handover the Keys of Deep Sea fishing Vessels and Fishing Vessel Transponders to select farmers of Tamil Nadu.

About Krishi Karman Awards

- These awards were instituted in 2010-11 for recognising the meritorious efforts of the states in food grains production.
- Krishi Karman awards are given to Best performer States for raising country's food grain production.
- The awards are given to the best performing States in two broad sets. One for total food grains production and the other for individual food grain crops of Rice, Wheat, Pulses and Coarse Cereals.
- Each award winning State gets a trophy, a citation and a cash award of Rs. 2 crore.
- For individual crops of Rice, Wheat, Pulses and Coarse Cereals, award winning States get a trophy, a citation and a cash award of Rs. 1 crore.

MANI APPLICATION OF RBI

- Reserve Bank of India, RBI has launched a mobile app, MANI, Mobile Aided Note Identifier, to help visually challenged people to identify denomination of currency notes.
- RBI said that the visually challenged can identify the denomination of a note by using the application, which can also work offline once it is installed.
- Through the downloaded app, users can scan the notes using the camera. The audio output will give the result in Hindi and English.
- The central bank has introduced several currency notes, under 'Mahatma Gandhi Series', with significant changes in the sizes and designs after the demonetization in November 2016.
- The RBI also said the app does not authenticate a note as either genuine or counterfeit.

POLITICAL PARTIES REGISTRATION TRACKING MANAGEMENT SYSTEM (PPRTMS)

- The Election Commission of India (ECI) launched the Political Parties Registration Tracking Management System (PPRTMS) to help the applicants keep a track of their applications for the party registration from this year onwards.
- The salient feature in the PPRTMS is that the applicant, who is applying for party registration from January 1, 2020, will be able to track the progress of his or her application and will get the status update through SMS and e-mail.
- Registration of political parties is governed by the provisions of Section 29A of the Representation of the People Act, 1951.
- The Commission in the month of December, 2019, has amended the guidelines registration of political party for the information of the general public. The new guidelines is effective from 1st January, 2020.

TEJAS EXPRESS

- After the successful run of Lucknow-Delhi Tejas Express, the second premium Tejas train is ready to run between Ahmedabad and Mumbai. This will be yet another step of the Ministry of Railways in its endeavour to improve the overall traveling experience to rail passengers by providing state of the art facilities.
- The inaugural run of this second Tejas Train will be flagged off from Ahmedabad on 17th January, 2020. The commercial run of the train will start with effect from 19th January, 2020 from Ahmedabad.

. The train to be operated by IRCTC which also operates the first Tejas Train, shall be equipped with all modern facilities on board for ensuring a high level of comfort to the passengers.

Salient features of the train are as under

. Complementary On board infotainment services will be available in IRCTC trains to the passengers.

. High quality food and beverages will be provided to the passengers on board in the train and included in the ticket fare.

. Service in the train will be done through trolleys similar to airlines. Each coach will be provided with RO water filter in addition to the packaged drinking water bottle for each passenger.

. All passengers travelling on IRCTC train will be provided with Rail Travel Insurance of up to Rs. 25 Lakhs, free of cost by IRCTC. This complimentary travel insurance also includes an exclusive coverage of Rs. 1 lakh against household theft / robbery during the travel period of the passengers.

. Besides, this special feature, in a first of its own, IRCTC will also pay a compensation of Rs. 100/- in case the train during its run, is delayed by more than one hour and Rs. 250/- in case of delay of more than two hours to every passenger as compensation.

. In case of cancellation of train, automatic full refund of full fare on confirmed and /or waitlisted e-tickets will be made. There will be no need of cancelling the ticket or filing TDR in such case

. There will be no tatkal quota or premium tatkal quota in the train. There will be only General Quota and Foreign Tourist Quota. Foreign Tourist Quota of 6 seats in EC and 12 seats in CC will be available for Foreign Tourists.

WORLD'S OLDEST RHINO' DIES IN TANZANIA

. A rhino believed to the world's oldest has died at the age of 57 in a Tanzanian conservation area.

. Fausta, a female black rhino, died of natural causes in captivity on Friday in the Ngorongoro Crater.

. Records show that Fausta lived [longer] than any rhino in the world and survived in the Ngorongoro, free-ranging, for more than 54 years before it was kept in a sanctuary for the last three years of its life in 2016.

. Fausta was first located in 1965 when she was between three and four years old. Her health deteriorated after hyenas attacked her in 2016. She was subsequently taken into refuge.

. Rhinos' life expectancy is around 40 years in the wild, but they can live an extra decade in captivity.

. Decimated by poaching, black rhinos now number around 5500, according to charity Save The Rhino.

. The smaller of the two African species, they are found in southern and eastern Africa, including Kenya, Tanzania, Namibia, South Africa and Zimbabwe.

YOUNG SCIENTISTS LABORATORIES

. In a boost to indigenous research capabilities in the defence sector, Prime Minister will dedicate Five DRDO Young Scientists Laboratories to the nation.

. The event shall be organised at the Aeronautical Development Establishment, DRDO at Bengaluru.

. The mission of the Young Scientist Lab is to foster a new generation of scientists who are inspired to improve the world with science.

. For teachers, students and parents seeking a place to explore the world of scientific innovations and opportunities, Discovery Education and 3M developed this interactive portal filled with engaging activities and standards-aligned teaching tools, anchored by the award-winning annual Young Scientist Challenge.

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CURRENT AFFAIRS ANALYST
PART-2 (JANUARY, 2020)

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SECTION: A
(MAINS)
CURRENT AFFAIRS

MOBILIZATION OF RESOURCES

CONTEXT

. Government of India has taken steps in the form of disinvestment, relaxing FDI norms, bringing new tax laws and rules and borrowings to mobilize resources for the development of the country. Recently, passenger fares in Railways were hiked on the recommendation of Bibek Debroy committee for mobilisation of resources for major railway projects and restructuring of railway ministry and railway board.

◉ BACKGROUND

œ Resource Mobilization is the identification, organization and utilization of the available material resources within the country (including financial resources) to further its objectives of development missions and plans.

œ Every country has economic resources within its territory known as domestic resources. But often they might not be available for collective use. The percentage of resources used when compared to the potential is often very low. For a country to grow, **identification and mobilization** of its resources is necessary. It should be available for easy use and for central and state level planning.

• **Types of Resources of India: There are two types of resources:**

> Natural Resources – Coal, Petroleum, Natural Gas, Water, Spectrum etc.

> Human Resources – The labour force and intellectual capacity of a nation.

◉ ANALYSIS

Why is Resource Mobilization so Important?

œ It is helpful in maintaining Organizational Sustainability.

œ It keeps a check and guarantees continuation of the organization's (government or non-government) service provision.

œ It paves the way for improvement of the available services and products.

œ It supports the expansion of the organization's products and services.

œ It is crucial to any organizations existence, as any organization, be it in the public sector or private sector, must continually generate new business to maintain a perpetual presence.

œ The proper utilization of these resources leads to generation of economic resources –savings, investment capital, tax, etc.

Mobilization of Natural Resources

œ India, though a country with sufficient reserves, due to **policy bottlenecks**, is importing coal and iron. This **is increasing our Current Account Deficit**.

œ India is also facing technological obstacles to exploit some of its the natural resources.

œ India is also suffering from the domestic factors like political factors, resistance from tribal people to development and exploitation of resources, inter-state conflicts, disputes with neighboring countries, etc.

Mobilization of Human Resources

Organizing human potential for ready use is necessary for growth of India. In-fact, as country of 125 crore people, India now is eyeing more on its human resource potential. The demographic dividend is also in favour of India.

œ Mobilization of human resources highlights the need to empower human resources.

œ Weaker sections like women, children, SC, ST, OBC etc should be brought into mainstream.

œ There should be right employment opportunities for human resources, and when there is lack of skill the job demands, there should be skill development programs.

œ Utilize the demographic dividend.

œ India is currently levering on its technologists – engineers, doctors and scientists.

Mobilization of Financial Resources

œ If a country needs to grow, more goods and services should be produced. The production can be done by government sector, private sector or in PPP mode. But for that, the economic resources of a country should be mobilised.

œ In India, despite having good savings rate, domestic investment is less. Indians are investing in less productive assets like gold and consumer durable. If India needs to grow, there should be more investments in agriculture, manufacturing or services.

œ In India, tax collected is very less. The tax base has to be widened.

œ Four factors of production- land, labour, capital and organization – should come together. There should be an atmosphere for growth and investment.

œ Organizations do not "spontaneously emerge" but require the mobilization of resources.

œ In modern capitalistic society, these resources are more "free flowing" and are easier to mobilize than in more traditional societies. Many factors impact the development of the organization.

œ Initial Resource Mix: There are various resource needs in a starting organization (technology, labor, capital, organizational structure, societal support, legitimacy, etc.). But the right mix of resources is not always available.

œ The most important resource of an organization is its people.

œ More savings and more productive investment.

How does public and Private sector mobilize domestic resources?

œ Public sector mobilises resources in two ways:
  > Taxation
  > Public revenue generation for investment in social services and infrastructure.

œ Private sector mobilises resources in following ways:
  > The private sector mobilizes the savings of households and firms through financial intermediaries, which allocate these resources to investment in productive activities.

Issues with mobilisation of resources

Issues with mobilisation of resources include all those issues and problems highlighted in – mobilization of natural resources, human resources and financial resources. Some of them are discussed here:

. **Limited Domestic public resources:**
  > It makes least developed countries (LDCs) highly dependent on external resources which limit their policy space and create some dependency.
  > Their economic vulnerability is further exacerbated by indebtedness.

. **Weak Domestic taxation and fiscal policies:**
  > The fiscal discipline is hardly seen in developing countries. They often resort to deficit financing to pursue development.
  > The taxes are not broad-based and tax evasion is common in developing countries which squeeze out the chances for public

expenditure.

. **Lack of National and sub-regional development banks with rural penetration:**
  > Though India is enjoying the presence of big national and international banks but the financial inclusion at rural level has been a myth.
  > Moreover, 2008 financial crisis brought national development banks back onto the policy agenda, as countries sought sources of long-term financing to stimulate economic recoveries, and there is greater international acceptance of such banks. However, poorer and smaller developing countries may face greater obstacles in setting up such banks, due to funding and technical constraints.

. **Illicit financial flows from developing countries:**
  > Illicit financial flows involve resources that have been obtained, transferred or used illegally or illicitly.
  > A common concern with regard to illicit financial flows from developing countries is the identification of flows considered potentially damaging to economic development.
  > In developing economies, vital development resources are being lost because of the ease with which capital flight can flourish in the context of a burgeoning yet opaque international financial system [and] closely related to this is the idea that illicit capital flows from developing economies are indicative of deeper structural problems of political governance in these countries.
  > Concerns over illicit financial flows therefore reflect a range of relevant policy concerns, yet underlying analytical frameworks and empirical methodologies continue to be the subject of debate. Illicit financial flows need not be illegal if relevant legal frameworks do not adequately reflect wider public social and economic interests or do not cover such flows.

. **International tax cooperation:**
  > The combating of illicit financial flows has been a core driver of international tax cooperation in recent years.
  > In general, international tax cooperation assumes particular importance in a world of hyperglobalization, in which tax systems in some countries can affect public revenue collection in other countries.
  > Such cross-national effects can result from tax evasion, for example if high net worth

individuals place financial assets in tax havens, as well as from illicit financial flows arising from the creative accounting or transfer pricing practices of multinational enterprises.

. Lack of Multilateral development Banks:

> Financing needs to support the achievement of the Sustainable Development Goals are considerable.

> Lack of financing is not due to a shortfall in global savings; at the global level, institutional investors currently have assets under their management totalling $115 trillion. Most are in the form of developed country securities and other assets that offer low returns.

> Multilateral development banks and other international banks, existing and new, are therefore needed to bridge finance from end-savers to development projects. Development banks can thus be key players in development by providing long-term financing directly from their funding sources, by tapping into new sources and by leveraging additional resources, including private, through the co-financing of projects with other partners.

Why is Domestic Resource Mobilization (DRM) particularly important?

In low-income countries confronting widespread poverty, mobilizing domestic resources is particularly challenging, which has led developing countries to rely on foreign aid, foreign direct investment, export earnings and other external resources. Nevertheless, there are compelling reasons to give much more emphasis to DRM.

œ GreaterrelianceonDRMisvitaltoelevatingeconomic growth, accelerating poverty reduction and underpinning sustained development.

œ High-growth economies typically save 20-30 per cent or more of their income in order to finance public and private investment.

œ DRM is potentially more congruent with domestic ownership than external resources.

œ Foreign aid invariably carries restrictions and conditionality.

œ FDI is primarily oriented to the commercial objectives of the investor, not the principal development priorities of the host country.

œ DRM is more predictable and less volatile than aid, export earnings, or FDI.

⦿ CONCLUSION

Resource in the form of investment is the most important factor affecting growth. Hence, resource mobilization to boost investment has always been a priority. The task of mobilizing resources involves deliberate decisions on selection of major investments, control of expenditures, monitoring of performance and realization of planned level of economic activity. Going further, it also includes prevention of tax evasion and tax avoidance.

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THE NOMINAL GDP WORRY
(LOWEST SINCE 1975-76)

CONTEXT

. **The estimated growth of 7.53% in 'nominal' terms is the lowest since 1975-76. Also, this is the first time since 2002-03 that nominal GDP growth is projected to be in single digits. Why is this major concern?**

◉ BACKGROUND

œ National Statistical Office (NSO) released the first advance estimates of the national income that projected growth in India's GDP at market prices for 2019-20 at 4.98% in "real" terms, the lowest since the 3.89% in the global financial crisis year of 2008-09.

œ But even more significant was the estimated growth of 7.53% in "nominal" terms, which is the lowest since the 7.35% for 1975-76.

œ Also, this is the first time since 2002-03 that nominal GDP growth has been in single digits.

What is nominal GDP and how is it different from real GDP?

œ GDP is the total market value of all goods and services produced in the economy during a particular year, inclusive of all taxes and subsidies on products.

œ The market value taken at current prices is the nominal GDP.

œ The value taken at constant prices — that is prices for all products taken at an unchanged base year — is the real GDP.

œ In simple terms, real GDP is nominal GDP stripped of inflation.

œ Real GDP growth thus measures how much the production of goods and services in the economy has increased in actual physical terms during a year.

œ Nominal GDP growth, on the other hand, is a measure of the increase in incomes resulting from rise in both production and prices.

But why should nominal growth matter at all?

œ In the normal course, real growth is what one would ordinarily look at. But the current fiscal year seems extraordinary because the gap between nominal and real GDP growth is just 2.6 percentage points.

œ This is marginally higher than the difference of 2.5 percentage points in 2015-16.

œ But in that year, real GDP growth was 8%, which translated into a nominal growth of 10.5%.

œ In 2019-20, not only is real GDP growth expected to be the lowest in 11 years, but also the implied inflation (also called GDP deflator, or the increase in prices of all the goods and services produced in the economy) is just 2.6%.

œ Simply put, producers have not gained from either higher output or higher prices.

œ Households and firms generally look at the "topline" — how much their income has grown relative to the previous year.

œ When that growth falls to single digits in a country like India, which has been used to a minimum 5-6% GDP increase year after year and an equal rate for inflation, it is unusual.

œ Low nominal GDP growth is associated more with developed western economies.

Other implications on corporates and the government

œ In the past, listed companies have seen their turnover double in five years or so, which comes with a nominal year-on-year growth of 14-15%.

œ If the latter falls to 7-8%, the same doubling would take 9-10 years.

œ This can have a psychological impact — although it could also be the case that the value of their

inputs, including salaries paid to employees, would also be rising at a slower rate.

œ Their net earnings or profits would not to the same extent.

œ The problem is more serious when it comes to the government because as assumed nominal GDP would grow by 12% to Rs 211.01 lakh crore. However, the NSO's latest projection of nominal GDP for 2019-20 is only Rs 204.42 lakh crore, which is Rs 6,58,374 crore below the Budget estimate.

œ High nominal GDP growth also makes the government's debt seem more manageable.

œ For state governments too, low nominal GDP growth is a matter of concern because their budgets normally assume double-digit increases in revenues.

œ The Centre's compensation formula to states from the Goods and Services Tax also promised to meet any annual revenue shortfall below 14%. That again, did not ever factor in the possibility of GDP growth (real plus inflation) falling to 7.5% levels.

What government can do about it?

œ The government has exhausted its options to fill a widening hole.

œ It has tapped the Reserve Bank of India (RBI) for extra dividend, held over several states' share in revenue and delayed payments to several agencies.

œ The hope now is that divestment in its prized companies could fetch a large chunk.

œ The government is also trying to hawk its land.

œ Analysts believe that fiscal deficit would slip to 3.8-4% as against the budgeted 3.4% of GDP.

œ The government will have to borrow more from the market to plug the widening deficit.

œ Beyond the impact on market rates, the government and its agencies are already crowding out the private sector.

œ With total public sector borrowing estimated at 9% of GDP, it leaves precious little of the savings in the economy for the private sector.

◉ WAY FORWARD

For GDP growth to revive private investment needs to recover and for that, funds need to flow. The economy is in a tight spot. It needs the government's push but not a complete takeover.

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WHAT CARBON NUMBERS MEAN FOR CLIMATE TARGET

CONTEXT

. The unusually cold December this year could just be another instance of extreme climates becoming more and more frequent, a result of climate change. Across the world, the frequency and intensity of both heat waves and cold waves have increased in the last few years.

⊙ BACKGROUND

- œ India, as part of its contribution to the global fight against climate change, has committed itself to creating an "additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent" by 2030.

- œ That is one of the three targets India has set for itself in its climate action plan, called Nationally Determined Contributions, or NDCs, that every country has to submit under the 2015 Paris Agreement.

- œ The other two relate to an improvement in emissions intensity, and an increase in renewable energy deployment.

- œ India has said it would reduce its emissions intensity (emissions per unit of GDP) by 33% to 35% by 2030 compared to 2005.

- œ It has also promised to ensure that at least 40% of its cumulative electricity generation in 2030 would be done through renewable energy.

What is the relationship between forests and carbon?

- œ Forests, by absorbing carbon dioxide from the atmosphere for the process of photosynthesis, act as a natural sink of carbon.

- œ Together with oceans, forests absorb nearly half of global annual carbon dioxide emissions.

- œ In fact, the carbon currently stored in the forests exceeds all the carbon emitted in the atmosphere since the start of the industrial age.

- œ An increase in the forest area is thus one of the most effective ways of reducing the emissions that accumulate in the atmosphere every year.

CARBON STOCK IN INDIAN FORESTS
(not including tree cover)

Year	Carbon stock (in mn tonnes)
2005	6,621.5
2013	6,941
2017	7,082
2019	7,124

How do the latest forest data translate into carbon equivalent?

- œ The latest forest survey shows that the carbon stock in India's forests (not including tree cover outside of forest areas) have increased from 7.08 billion tonnes in 2017, when the last such exercise had been done, to 7.124 billion tonnes now.

- œ This translates into 26.14 billion tonnes of carbon dioxide equivalent as of now.

- œ It is estimated that India's tree cover outside of forests would contribute another couple of billion of tonnes of carbon dioxide equivalent.

How challenging does this make it for India in meeting its target?

- œ An assessment by the Forest Survey of India (FSI) last year had projected that, by 2030, the carbon stock in forests as well as tree cover was likely to reach 31.87 billion tonnes of carbon dioxide equivalent in the business as usual scenario.

- œ An additional 2.5 to 3 billion tonnes of sink, as India has promised to do, would mean taking the size of the sink close to 35 billion tonnes of carbon dioxide equivalent.

- œ Considering the rate of growth of the carbon sink in the last few years, that is quite a stiff target India has set for itself.

- œ In the last two years, the carbon sink has grown by just about 0.6%%. Even compared to 2005, the size of carbon sink has increased by barely 7.5%.

- œ To meet its NDC target, even with most optimistic estimates of carbon stock trapped in trees outside of forest areas, the sink has to grow by at least 15% to 20% over the next ten-year period.

Forest cover up but large tracts of dense forest have turned non-forest

- œ The biennial State of Forest Report (SFR) announced an overall gain of 3,976 sq km of forests in India since 2017.

- œ There is a loss of 2,145 sq km of dense forests that have become non-forests in those two years.

œ Dense forests are defined by canopy cover: over 70% is considered very dense and 40-70% medium dense.

œ Unlike natural forests, commercial plantations grow rapidly and show up as dense cover in satellite images.

œ A monoculture, however, cannot substitute natural forests in biodiversity or ecological services

œ Some of these are fast-growing species such as bamboo in the north-eastern region. Also rubber and coconut plantations in the southern states.

œ Since 2003 when this data was first made available, 18,065 sq km — more than one third of Punjab's landmass — of dense forests has become non-forests in the country.

œ Forestland roughly the combined area of Tamil Nadu and West Bengal holds no forests at all. There is no denial that the gain in forest cover is outside forestland.

◉ **WHAT IS THE WAYFORWARD?**

œ There are two key decisions to be made in this regard — selection of the baseline year and addition of the contribution of the agriculture sector to carbon sink.

œ The baseline year can impact the business-as-usual projections for 2030. BAU projections are obtained using policies that existed in the baseline year. Now, there has been a far greater effort in recent years to increase the country's forest cover.

œ So a 2015 baseline would lead to a higher BAU estimate for 2030 compared to a 2005 baseline when less effort were being made to add or regenerate forests.

œ If 2005 baseline is used, India's targets can be achieved relatively easily.

œ India's emissions intensity target uses a 2005 baseline, so there is an argument that the forest target should also have the same baseline.

œ When India announced its NDC in 2015, it did not mention the baseline year. It has to decide on it before it reconfirms its NDC targets ahead of the next climate change meeting in Glasgow.

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ELECTORAL REFORMS

CONTEXT

. Recently, Vice-President M. Venkaiah Naidu has termed Indian experience with democracy as a remarkable success story. However, he also pointed out two distortions in the form of enormous money power in politics and elections and the increasing attempts to entice the voters with freebies that hurt Indian democracy.

⦿ BACKGROUND

œ Electoral reforms refer to the development and benign change in election processes in India in order to facilitate better democracy, clean politics, ideal members of legislative houses, equality of representation and so on. Articles 324-329 deal with elections and electoral reforms. Electoral reforms are required to uphold the aspiration of our ancestors, to accomplish the ideals of our constitution and to have a true democracy in letter as well as in spirit by conducting fair elections.

œ Among the MPs elected to the 16th Lok Sabha, out of the 542 winners analyzed, 185(34%) winners have declared criminal cases against themselves. 112 (21%) winners have declared serious criminal cases including cases related to murder, attempt to murder, communal disharmony, kidnapping, crimes against women etc. (Association for Democratic Reforms report)

œ ADR also underlined that the chances of candidates with criminal charges were almost double as compared to clean candidates. The chances of winning of a candidate with criminal cases in the Lok Sabha 2014 elections are 13 percent while for a candidate with a clean record it is 5%.

œ The **Goswami Committee on Electoral Reforms**, in 1990, highlighted the crippling effect of money and muscle power in elections.

œ The **N.N. Vohra Committee** which submitted its report in October 1993 studied of the problem of criminalization of politics and the nexus among criminals, politicians, and bureaucrats in India. The committee had concluded that agencies, including the CBI, IB, RAW, had unanimously expressed their opinion that the criminal network was virtually running a parallel government.

œ **The Law Commission of India, in its 244th report,** said that instead of politicians having suspected links to criminal networks, as was the case earlier, it was persons with extensive criminal backgrounds who began entering politics. The Law Commission said that in the 10 years since 2004, 18% of the candidates contesting either national or State elections had criminal cases against them.

œ 18th Report presented by a parliamentary committee to the Rajya Sabha in March 2007 expressed feeling that politics should be cleansed of persons with established criminal background". It said, "criminalization of politics is the bane of society and negation of democracy".

Constitutional articles related to electoral reforms:

. **Article 324-329** deals with elections and electoral reforms.

. **Article 324** deals with the Superintendence, direction and control of elections to be vested in an Election Commission.

. **Article 325** states that no person to be ineligible for inclusion in, or to claim to be included in a special, electoral roll on grounds of religion, race, caste or sex.

. **Article 326** deals with the Elections to the House of the People and to the Legislative Assemblies of States to be on the basis of adult suffrage.

. **Article 327** provides power to the Parliament to make provision with respect to elections to Legislatures.

. **Article 328** provides power to Legislature of a State to make provision with respect to elections to such Legislature.

. **Article 329** provides to create a bar on court to make any interference by courts relating to electoral matters.

⦿ ANALYSIS

Major Challenges in Indian electoral system

. **Money Power:**

> Electioneering is an expensive affair in every democratic polity which plays a more vital role in India.

> Money power plays destructive role in our electoral system affecting seriously the working of periodic elections. It leads to all round corruption and contributes mainly to the generation of black money economy.

> A prospective candidate in each constituency has to spend millions of money towards transport, publicity and other essential items of

election campaign. In recent years the election expenses have increased beyond any limits due to the desire on the part of every political party to spend more than their rivals in the fray.

> The elections were not as costly in 1952 as they have become today. Political leaders and workers considered it unethical to work with a desire for any reward. But scenario now has changed. The elections in Indian polity are becoming increasingly expensive and the gap between the expenses incurred and legally permitted is increasing over the years.

. **Muscle Power:**

> Violence, pre-election intimidation, post-election victimisation, most of the riggings of any type, booth capturing both silent and violent are mainly the products of muscle power.

> These are prevalent in many parts of the country like Bihar, Western Uttar Pradesh, Maharashtra etc. and this cancerous disease is slowly spreading to south like in Andhra Pradesh.

> Criminalisation of politics and politicalisation of criminals, freely indulged in now, are like two sides of the same coin and are mainly responsible for the manifestation of muscle power at elections. By using of violence, the criminals are able to achieve success at elections for their benefactors

. **Misuse of Government Machinery:**

> It is generally complained that the government in power at the time of election misuse official machinery to further the election prospects of its party candidates.

> The misuse of official machinery takes different forms, such as issue of advertisements at the cost of government and public exchequer highlighting their achievements, disbursements out of the discretionary funds at the disposal of the ministers, use of government vehicles for canvassing etc.

> The misuse of official machinery in the ways mentioned above gives an unfair advantage to the ruling party at the time of elections. This leads to misuse of public funds for furthering the prospects of candidates of a particular party.

. **Criminalisation of Politics**

> The reason of the criminals behind entrance to politics is to gain influence and ensure that cases against them are dropped or not proceeded with. They are able to make it big in the political arena because of their financial clout. Political parties tap criminals for fund and in return provide them with political patronage

and protection.

> Rough estimates suggest that in any state election 20 per cent of candidates are drawn from criminal backgrounds

. **Non-Serious Candidates in Political Parties**

> In recent years there has been a steady increase in the number of candidates in elections. The number of candidates has swelled due to the participation of Independents. They contest elections light heartedly and lose their deposits.

> Non-serious candidates are largely floated by serious candidates either to cut sizeable portion of votes of rival candidates or to split the votes on caste lines or to have additional physical force at polling station and counting centers.

> The multiplicity of candidates causes inconvenience to election authorities in the management of elections. The voters are also handicapped in identifying the candidates of their own choice. This affects the sanctity of elections. This onslaught of non-seriousness has to be halted.

. **Incentives to entice Voters (freebies)**

> Freebies have actually compounded the problem of money power in politics.

> Free liquor or some goods or services to voters are acts of enticing voters.

. **Paid and Fake News**

> **Paid news is published as a news item in the form of advertisement. Fake news is news, stories or hoaxes created to deliberately misinform or deceive readers. Both are the threats to the free and fair electoral system.**

Steps Taken by Government

Following electoral reforms have been undertaken by authorities:

œ **Lowering of Voting Age:** The 61st Amendment Act to the Constitution reduced the minimum age for voting from 21 to 18 years.

œ **Deputation to Election Commission:** All personnel working in preparing, revising and

correcting the electoral rolls for elections shall be considered to be on deputation to the EC for the period of such employment, and they shall be superintended by the EC.

œ **Increase in the number of proposers and the security deposit:** The number of electors required to sign as proposers in the nomination papers

for elections to the Rajya Sabha and the State Legislative Councils has been raised to 10% of the electors of the constituency or ten such electors, whichever is less chiefly to prevent frivolous candidates. The security deposit has also been hiked to prevent non-serious candidates.

œ **Electronic Voting Machine (EVMs):** First introduced in 1998 during the state elections of Delhi, Madhya Pradesh and Rajasthan, EVMs are used widely now as they are fool-proof, efficient and a better option in terms of the environment.

œ **Disqualification on conviction for violating the National Honours Act, 1971:** This shall lead to disqualification of the person for 6 years from contesting to the Parliament and the state legislatures.

œ **Restriction on contesting from more than 2 constituencies:** A candidate cannot contest from more than 2 constituencies.

œ **Death of a contesting candidate:** Previously, the election was countermanded on the death of a contesting candidate. In the future, no election will be countermanded on the death of a contesting candidate. If the deceased candidate, however, was set up by a recognized national or state party, then the party concerned will be given an option to nominate another candidate within 7 days of the issue of a notice to that effect to the party concerned by the Election Commission.

œ It is prohibited by law to go to or near a polling booth bearing arms. This is punishable by imprisonment for up to 2 years.

œ On poll days, employees of organisations get a paid holiday and violation of this is punishable by a fine.

œ **Prohibition on sale of liquor:** No liquor or other intoxicants shall be sold or given or distributed at any shop, eating place, or any other place, whether private or public, within a polling area during the period of 48 hours ending with the hour fixed for the conclusion of poll.

œ **Time limit for bye-elections:** Bye-elections to any House of Parliament or a State Legislature will now be held within six months of the occurrence of the vacancy in that House.

œ The period of campaigning has been reduced.

œ **Ceiling on election expenditure**: At present, there is no limit on the amount a political party can spend in an election or on a candidate. But, the Commission has put a cap on individual candidates' spending. For the Lok Sabha elections, it is Rs. 50 – 70 lakh (depending on the state they are contesting the Lok Sabha seat from), and Rs. 20 – 28 lakh for an assembly election.

œ **Restriction on exit polls:** The EC issued a statement before the 2019 Lok Sabha elections saying that exit poll results could be broadcast only after the final phase of the elections were over. This was done to avoid prospective voters being misguided or prejudiced in any manner.

œ **Voting through postal ballot**: In 2013, the EC decided to expand the ambit of postal ballot voting in the country. Previously, only Indian staff in missions abroad and defence personnel in a limited way, could vote via postal ballots. Now, there are 6 categories of voters who can use the postal ballot: service voters; special voters; wives of service voters and special voters; voters subjected to preventive detention; voters on election duty and Notified voters.

œ **Awareness Creation:** The government decided to observe January 25th as 'National Voters Day' to mark the EC's founding day.

œ Political parties need to report any contribution in excess of Rs 20000 to the EC for claiming income tax benefit.

œ Declaring of criminal antecedents, assets, etc. by the candidates is required and declaring false information in the affidavit is now an electoral offence punishable with imprisonment up to 6 months or fine or both.

What needs to be done to make Indian electoral system fair and transparent?

.	**Independent	permanent	electoral administration:**

> At Present, the EC does not have independent staff of its own. Whenever elections take place, the Election Commission has to depend upon staff of Central and State Governments.

> The dual responsibility of the administrative staff, to the government for ordinary administration and to the EC for electoral administration is not conducive to the impartiality an efficiency of the Commission. Along with it comes the problem of disciplinary control over the staff deputed to do election work which generally generates confrontation between the Government and the EC.

> Now, when the elections have ceased to be a mere periodical affair, it is desirable that the EC should have a permanent electoral administration with adequate disciplinary control over the staff.

> The CEC should not be at the mercy to Executive and Parliament for its requirements. He should have separate and independent election department to enhance its objectivity and impartiality.

.	**Self-Regulation by Political Parties:**

> Political corruption should be stopped by

providing funds to genuine candidates through political parties whose account should be auditable. Candidate involving in corruption should be disqualified.

> For having a true democracy the registration and recognition of the political parties should be fair and without any kind of influence.

> However, political parties don't show commitment to bring in necessary behavior that is required to make the electoral system more fair and transparent.

. Neutrality by Mass Media

> Mass Media should play a non-partisan role in election and as a safeguard of democracy.

> Paid and fake news must be avoided and media must adopt self-regulation to prevent dissemination of misinformation.

> Periodic elections are the foundation of a democratic system. For fair electoral system every aspiring candidate must have fettered freedom to offer himself as a candidate for election and to conduct his election campaign in his own way so long as he keeps him within the law.

> Exit polls and opinion polls have impact on election results mainly when elections are held in phases.

. Educate People

> Every voter must be perfectly free to vote as he/she likes without any fear of consequences and without being unduly influenced by anyone by improper means and inducement or pressure of any kind. They must reject candidates that resort to election mal-practices.

> The secrecy of voters" preference to any candidate should be maintained. The election machinery must function honesty and impartially at every stage.

> Parliament must pass a law dealing with this serious problem of de-listing of valid electorates from electoral rolls because illiterate electorate residing in far villages cannot watch over publication of electorate lists.

> Preparation of electoral rolls by EC is to be supervised at village level and certificates from officials who prepare electoral rolls to the effect that the electoral rolls have been thoroughly revised. They do not include that persons and legally disenfranchised citizens and intentionally no name should be left in them. Accountability to be fixed for intentional exclusion of name of voters from electoral rolls.

. Cap the party expenditure

> Representation of Peoples Act, 1955 provides limits on the expenditure of an individual candidate while it does not provide the same for the expenditure of a political party.

> A candidate can't spend more than 70 lakhs in Lok Sabha elections or 20 lakhs in State Assembly elections. This cap is also not rational keeping in view the inflation in the present days.

. Audit of Party Expenditure

> Audit of the party expenditure should also be conducted regularly.

> Political parties must show spine by establishing an independent body for conducting the adit of the election expenditure of the parties.

. Localizing Power

> Voters generally don't vote for the candidate they vote for the party

> Parties are also not to be perceived as villains but they are the agents to respond to the incentives given.

> People can't become wise overnight and bring in transformation. It is a gradual evolution.

> We have centralized the power and there is no link between vote and consequences in a tangible manner. We have not empowered local governments and it is for the interest of the democracy to empower local governments and localize power.

◉ CONCLUSION

There is doubt that people vote for the identity and that identity is with the party and not with the candidate. The real politics is at the state level and it is of derivatives at the national level. In such case we must formalize the party vote and seek vote for the party on the basis of proportional representation. The share of votes is transferred into seats later.

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'CHANGING CONTOURS OF INDIA'S SOFT POWER DIPLOMACY'

CONTEXT

. In recent times, India has unleashed its true potential and maintained a strong focus for its use as an instrument of public diplomacy. The article aims to analyse the increasing importance of soft power and how it has shaped India's foreign policy and behaviour.

⦿ BACKGROUND:

œ India's soft power is strong, and it has been so, long before such a concept was made famous by American political scientist **Joseph Nye** (an American political scientist) in **1990.**

œ For centuries, India's soft power was already being recognised in many parts of the world, where people learned about and accessed the arts and culture of one of the world's oldest civilisations.

œ But the most important time, is the past decade when India has increased its use of soft power in a more systematic way.

œ Several initiatives have been launched to push India to the forefront of the international community, including:

> the creation of a public diplomacy division within the Ministry of External Affairs in 2006

> the worldwide expansion of the Indian Council for Cultural Relations (ICCR)

> the Ministry of Tourism's 'Incredible India' campaign

> the work of the Ministry for Overseas Indians

> the promotion of business and trade

> the current government's diplomatic efforts

œ These collaborative efforts have not only helped emphasise the social and cultural assets of India abroad, but they also support the country's major foreign-policy initiatives.

œ In the last few years, the government is focusing on four specific soft power assets of India for achieving diplomatic successes and furthering the country's national interests:

> Buddhism

> Diaspora

> Yoga

> economic leverage

⦿ ANALYSIS:

Soft power: An instrument of public diplomacy

œ 'Soft power' refers to the ability to persuade others to do something using neither force nor coercion (Joseph Nye).

œ While conventional, hard power relies on the State's military and economic resources, soft power works on persuasion, aiming at furthering a country's 'attractiveness'.

œ It is based on three main categories of a country's resources:

> Culture

> political values

> foreign policies

œ Soft power is mostly based on intangibles such as the power of example. E.g. Yoga, Buddhism, movies, music, spirituality etc.

œ Today, most countries use a combination of soft power and hard power, together called 'smart power'.

Why is it so significant?

œ Soft power enables a change of behaviour in others, without competition or conflict, by using persuasion and attraction. Soft power can, no doubt, play a vital role in producing benevolence.

œ It has the capacity to influence broader international audiences at large, in shaping the perceptions about the legitimacy and influencing environment of the permissive boundaries in which economic and military power is used.

œ Even in the ancient time's scholars like Kautilya and Kamandak had advocated the use of soft power for achieving progress in state affairs.

œ A country's soft power influence rests on how effectively it uses resources of culture, values, and economic policies.

œ Soft power is power and at times, it is more powerful than hard power.

The true picture of soft power in India:

œ As the world's largest democracy that is also home to the world's largest number of impoverished people, India is variously described as a model of soft power or a country that makes remarkably poor use of it.

œ For some, its rich culture and democracy stand in contrast to other authoritarian and revisionist great powers, and indeed many Indian leaders speak positively about the country's soft power potential.

œ By contrast, as implied by its absence from The Soft Power 30 Index, India evidently does not yet benefit as much from international awareness, positive associations or investments in cultural diplomacy as many other countries.

œ In reality, the picture is mixed. Indeed, there are many ways in which India fares poorly in terms of elements of national attraction.

œ It has a widespread (and often justified) reputation for corruption, endemic poverty and hostility to business.

œ Reports in the international media of pollution in urban areas, child labour and violence against women have also detracted expatriates, tourists, business people and other visitors.

œ At the same time, India's associations have started to change over the past quarter-century from a land of poverty and Mother Theresa to a source of software programmers and techies.

Challenges:

œ **Poor digital penetration & technologies:** Though India may be home to more top 30 unicorns (billion-dollar start-ups) than any country (other than the United States and China), its digital penetration remains low, with millions of its population still without access to electricity, and basic digital technologies.

œ **Poor cultural diffusion:** Second, India rates badly on any measure of state-driven cultural diffusion rather than the more organic and natural private sector and citizen-led efforts.

> Though most Indian cultural diffusion to overseas audiences—from yoga to Bollywood—has occurred.

> The Indian government has is also promoting the study of Hindi abroad in large part because of its linguistic diversity at home.

œ **Poor tourism story:** India has a high number of UNESCO World Heritage sites, but still fares poorly on tourism and education on a per capita basis.

œ **Lack of infrastructure for cultural development:** India was plagued by impoverishment, missing out on positive associations, coupled with lack of investment in cultural diplomacy, a reputation of deep-rooted corruption, hostile business environment, red-tapism, lack of infrastructure and severe pollution in urban areas.

œ **Brain drain:** There are Indian contributions that are not necessarily associated with the country. E.g.- the export of India's largest car manufacturer Tata Motors is Jaguar Land Rover, manufactured primarily in Britain and Buddhism.

Looking at the positive side:

In recent years, dynamism and policy changes have reshaped India's perceptions in the outside world.

The Government has made concerted efforts to connect with the influential Indian Diaspora in all countries. The recent developments in this way can be learnt from the following:

œ **A separate ministry for Indian Diaspora:** A separate revitalized ministry was established to address the concerns of the outside Diaspora and re-establish their Indian connect so as to make them active participants in the extension of the country's goodwill and influence.

œ **Maintaining Indian legacy:** The government was also successful in projecting yoga and Ayurveda as quintessentially Indian legacy. Recognition by UN of June 21, as International Yoga Day on the insistence of Indian government has been a step in the right direction.

œ **Alliances with neighbours:** Extension of the line of credit to its neighbours including Russia has helped cement new mutually beneficial alliances in tune with India's policy of having collaborative, soft diplomacy.

œ **Resolving contentious issues:** India has further deepened its strategic relationship with the US, improved relations with SAARC countries except for Pakistan, and improved its relations with UAE and Saudi Arabia. Even with China, efforts have been to find common grounds of mutual convergence and find solutions to resolve contentious issues.

œ **Alliances with strong platforms:** New alliances in the formation of Quad, active role in BRICS, ASEAN, IBSA, G-4 are all indicators of a newly assertive and confident India.

œ **Emerging as a crusader of environment protection**: India has also projected itself as a crusader of environment protection and taken a strong stance against climate change.

With India focussing on domestic economic goals, strategic ties with the US, strengthening relations with all major powers including China and moving away from a Pak centric approach are all policy changes in line with it seeking a much larger, relevant position at the world stage.

The Road Ahead:

India, a large democracy with a rich culture and a modicum of principle in its international engagement, the country has often benefited in tangible ways from its soft power. Today, India is building upon a range of ongoing political and diplomatic efforts, from unveiling its 'Incredible India' tourism campaign, getting International Yoga D recognized by the United Nations, Make in India initiative, improving its ease of doing business ranking, it can be expected that India soft power are going to gradually grow in the coming times.

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IRAN ABANDONS THE 2015 NUCLEAR DEAL

CONTEXT

. **Iran has announced that it would no longer abide by any restrictions on its nuclear program, just days after the United States killed a top Iranian military commander in an airstrike in Baghdad.**

⦿ **BACKGROUND:**

œ The deal officially called Joint Comprehensive Plan of Action (JCPOA) commonly known as the Iran deal was signed on July 14, 2015.

œ It was signed between Iran, the U.S., China, France, Russia, the U.K., Germany, and the European Union.

œ P5 is the 5 permanent members of the UNSC (US, China, France, Russia, and the UK).

œ In May 2018, the United States President Donald Trump pulled the United States out of the treaty, calling it "a horrible one-sided deal that should have never, ever been made," and imposed punitive new sanctions as part of a "maximum pressure" campaign.

œ The other signatories — Europe in particular, but also Russia and China — tried hard to preserve the agreement.

œ And Iran initially said it would adhere to its treaty obligations.

œ But Tehran has since taken a series of steps away from the treaty, and analysts fear that it may now renounce all of its obligations.

⦿ **ANALYSIS**

About the Deal:

œ Iran's nuclear deal came after years of tension over Iran's alleged efforts to develop a nuclear weapon.

œ Though Iran had always insisted that its nuclear programme was entirely peaceful, but the international community did not believe Iran.

œ Under the Joint Comprehensive Plan of Action, Iran agreed to limit its sensitive nuclear activities and allow in international inspectors in return for the lifting of crippling economic sanctions.

œ **Key-Points:** The deal aimed at curbing Iran's nuclear programme

> Iran agreed not to build any more heavy water facilities.

> Eliminate its stockpile of medium-enriched uranium.

> Cut its stockpile of low-enriched uranium, and reduce the number of its gas centrifuges.

> In return, Iran will recover assets worth $100 billion frozen in overseas banks, and sanctions on the country by the U.S., the U.N., and the E.U. will be lifted.

What was the controversy behind the Deal?

œ The deal failed to address Iran's missile program or its contribution to discord in the Middle East.

œ While that nuclear deal was built to curb Iran's nuclear weapons capacity, it was not created to destroy Iran's missile capabilities.

œ Not only this, Iran also supported terrorist groups such as Hezbollah and Hamas in the Middle East and continues to back the Syrian President Bashar Assad.

œ Iran provided weapons to Houthi rebels in Yemen, which puts the US in a particularly delicate position given the rebels' attacks on Saudi Arabia (an ally to the US).

The current issue:

œ The current announcement came as fallout from the killing of Soleimani, one of Iran's most powerful military and political figures, stoked growing tensions in the Middle East.

œ The Atomic Energy Organization of Iran said that from now on, "Iran's nuclear program no longer faces any operating restrictions," including how many kilograms of uranium it can enrich and how much it can enrich it.

> Low-enriched uranium is suitable for powering nuclear reactors; highly enriched uranium is needed to make a bomb.

œ Iran is throwing off any limits on the number of centrifuges that it can operate; under the terms of the 2015 agreement.

œ It was limited to a little over 5,000 first-generation centrifuges, which constrained its ability to enrich uranium to the levels needed to build a bomb.

œ Now, Iran can install more of the older and less-efficient centrifuges (it has plenty) as well as arrays of more advanced, and more efficient, centrifuges that can enrich more uranium more quickly.

œ That's important because the quicker Iran can enrich uranium, the quicker it can build a big stockpile of the stuff and proceed to further enrich it.

œ Previously, Iran had eschewed limits, the latest step creates the potential of a more robust enrichment program that would be necessary to turn a ton or so of low-enriched uranium into about 25 kilograms of highly enriched uranium, the minimum needed for an atomic weapon.

Significance of Iran for India:

For India, Iran is beneficial in many directions such as-

œ **Chabahar port:** From Indian perspective, Chabahar port is vital to building up of strategic close relationship with Iran and Central Asia. This would entirely bypass Pakistan, which would help India to directly compete with China's growing influence in the region.

œ **Geopolitical:** Iran is a gateway to Central Asia and the region is going to be the scene of renewed great power rivalry.

œ **Energy:** Iran oil is comparatively cheap and can decrease the dependence on Saudi for oil.

œ **Role in Afghanistan:** India is constructing a 560-mile long railway line linking the Iranian port with the iron ore mines in **Hajigak** in southern Afghanistan. The project will potentially afford India some strategic benefits especially increasing India's position and leverage in Afghanistan and the central Asian region.

Implications for India:

œ **Risk to Chabahar port agreement**: In 2016, India and Afghanistan had signed a transit agreement on Chabahar port, to enhance trade with Afghanistan without Pakistan's role. Now, US sanctions could slow the plans or even can bring the plans to a halt.

œ **Inflation:** Iran is India's third biggest supplier of crude oil, and any increase in prices will hit both inflation level and the rupee.

œ **SCO membership:** India has joined the Shanghai Cooperation Organization and China is planning to induct Iran in the organization to bring the nation closer for investment purpose. If Iran enters into the group, it will create the image of the SCO as an anti-American block, which will affect India's image for US.

œ **US-India ties:** Though US's withdrawal is not a huge problem for India, but it can create complications that will require it to expend time and resources that are already in short supply. It can also add another difficult item to the US-India agenda.

œ **Global uncertainty:** The move will reinforce concerns about US reliability and it will have broader implications for the Middle East, which is a critical region for India. Moreover, it will create more space for China in Iran and the region more broadly. The decision will add to the global uncertainty that will affect India's geopolitical, economic, and political options.

Both Iran and the United States are strategically and economically significant for India and India wants to have good relations with both the countries. No doubt, the US is an indispensable partner for India, in the context of new threats and challenges emerging in Asia. However, in the present situation, the US should understand that like any other bilateral relationship, there will be differences between itself and India on various issues, especially on the Iran issue. India should not be made to choose between the US and Iran.

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SECTION: B
(PRELIMS)
CURRENT AFFAIRS

FIRST SILK PROCESSING PLANT IN GUJARAT

⊙ **CONTEXT**

- **In a historic initiative taken by Khadi and Village Industries Commission (KVIC), a first Silk Processing Plant has been inaugurated at Surendranagar in Gujarat.**

Key-details of the plant:

. The plant has been set up by a khadi institution at a cost of Rs 75 lack in which KVIC has contributeed Rs 60 lakh.

. The unit has employed 90 local women, 70 of which belong to the Muslim community.

. The plant would help cut down the cost of production of silk yarn drastically and increase the sale and availability of raw material for Gujarati Patola Sarees locally.

. Surendranagar district is a backward district in Gujarat where KVIC has invested Rs. 60 Lakhs to build the Silk Processing Plant, in order to generate livelihood and boost sales of Patola Sarees by making silk more ready available at a low cost, for the Patola Saree manufacturers in the nearby area.

What was the need to setup plant in Gujarat?

. Reason being the raw material silk yarn is purchased from Karnataka or West Bengal, where silk processing units are situated, thus increasing the cost of the fabric manifolds.

. Now, cocoons will be brought from Karnataka and West Bengal and Silk yarn will be processed in house.

. It will reduce the cost of production and give a major boost to the sale of famous Gujarati Patola Sarees.

Patola Sarees:

. Patola, the trademark Saree of Gujarat, is considered to be very costly and worn only by the Royals or the Aristocrat.

. Traditionally, every region in India has had its own unique weave for the Silk Saree.

. It is quite notable that Patola Silk Saree is amongst the top five silk weaves which are desired in every Indian Saree Lover's wardrobe.

. Given is the list of famous silk sarees found in different state of India:

Famous Silk Sarees	State
Benarasi Silk Saree	Uttar Pradesh
Kanjeevaram Silk Sarees	Tamil Nadu
Kasavu Saree	Kerala
Paithani Silk Saree	Maharashtra
Bandhini Saree	Gujarat
Chanderi Saree	Madhya Pradesh
Muga Silk Saree	Assam
Leheriya Saree	Rajasthan
Jamdani Saree	Bengal
Sambalpuri Ikat Saree	Odisha

Pochampally Saree	Telangana
Baluchari Silk Saree	West Bengal
Phulkari Saree	Punjab
Chikankari Saree	Lucknow
Kalamkari Saree	Rajasthan
Bomkai Saree	Odisha
Tant Saree	West Bengal

Quick facts on 'silk' for Prelims:

. Silk, one of the oldest fibers known to man, originated in China. India is the second largest producer of natural silk after China.

. Silk is produced from the cocoons of mulberry silkworm via a process called Sericulture. The yarns produced from the process of sericulture are used to weave a variety of textiles.

. India produces four varieties of silk produced:

œ Mulberry

œ Eri

œ Tasar

œ Muga

. In India, the Central Silk Board, a statutory body, under the administrative control of the Ministry of Textiles is responsible for the development of silk industries across the country.

About Khadi and Village Industries Commission (KVIC):

. The Khadi and Village Industries Commission (KVIC) is a statutory body established by an Act of Parliament.

. In April 1957, it took over the work of former All India Khadi and Village Industries Board.

œ The broad objectives that the KVIC has set before it are:

œ The social objective of providing employment.

œ The economic objective of producing saleable articles.

œ The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit.

NORTHEAST GAS GRID PROJECT

◉ **CONTEXT**
- **Recently, the Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi, has given its approval for viability Gap Funding/ Capital Grant of 60% of the estimated cost of Rs. 9,265 crore for the Northeast Gas Grid project to Indradhanush Gas Grid Limited (IGGL) who implements it.**

◉ **ABOUT**
- The Northeast Gas Grid Project will connect **Guwahati to the major Northeast cities and major load centers. It is 1, 656 km long.**

. The project is being implemented under ambitious **Urja Ganga Gas Pipeline Project.**

. Besides connecting all the state capitals in the region, the pipeline will also connect with the National Gas Grid through Barauni-Guwahati Gas Pipeline, which is being laid by GAIL.

. The pipeline will enable the supply of piped cooking gas to households and CNG to automobiles, besides fuel to industry.

. **Implementing Agency:** The North-East pipeline grid is to be implemented by Indradhanush Gas Grid, a joint venture of state-owned GAIL India, Indian Oil Corp (IOC), Oil and Natural Gas Corp (ONGC), Oil India Ltd (OIL) and Numaligarh Refinery Ltd (NRL).

Objectives of National Gas Grid

. To remove regional imbalance within the country with regard to access for natural gas and provide clean and green fuel throughout the country.

. To connect gas sources to major demand centres and ensure availability of gas to consumers in various sectors.

. Development of City Gas Distribution Networks in various cities for the supply of CNG and PNG.

⊙ **SIGNIFICANCE**

• The funding support to the project is actually a leg of a broader goal of the government to raise the share of natural gas in the country's energy mix to 15% by 2030 from current 6.2%.

. The government has envisaged developing the National Gas Grid. At present, about 16,788 km natural gas pipeline is operational and about 14,239 km gas pipelines are being developed to increase the availability of natural gas across the country.

. Socio-Economic and Environmental Benefits

œ Development of industrial climate in eight states of the north-eastern region i.e. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura will help in reduction in the usage of kerosene, wood, etc. due to increased usage of

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Pradhan Mantri Urja Ganga project:

The gas pipeline project aims to provide piped cooking gas to residents of Varanasi and later to millions of people in states like Bihar, Jharkhand, West Bengal and Odisha.

. From Varanasi's perspective, an 800-km long MDPI pipeline will be laid and 50,000 households and 20,000 vehicles will get PNG and CNG gas respectively. The government estimates that around 5 lakh gas cylinders will be sent at rural areas annually.

. According to GAIL, with the Urja Ganga project, 20 lakh households will get PNG connections. The project is said to be a major step towards collective growth and development of the Eastern region of India.

. GAIL has built a network of trunk pipelines covering the length of around 11,000 km. With Urja Ganga project, this number will further increase by 2540 km.

Viability Gap Funding

. It is usually seen that many projects, like a road connecting a rural area, generates high economic returns, but the financial returns may not be sufficient for a profit seeking investor.

. In such condition, the project would not attract private investment. In such cases, the government extends its support to the investors by sharing a f fraction of the cost, making the project viable.

. For the successful completion of such projects, the government has designed Viability Gap Funding (VGF).

. Viability Gap Finance means a grant to support projects that are economically justified but not financially viable.

environment friendly fuel natural gas thereby improving the environment in the region.

œ Improvement in the standard of living of peoples living in the region.

œ It will boost Exploration & Production activities and connect regional gas sources with pipeline network for early monetisation of natural resources in the region.

◉ **CONCLUSION**   • The Northeast Gas Grid is a part of the larger vision to usher in Gas based economy and to increase the share of natural gas in country's primary energy mix.

2636 EV CHARGING STATIONS SANCTIONED UNDER FAME-II

◉ **CONTEXT**   • **In a bid to give a further push to clean mobility in Road Transport Sector, the government has sanctioned 2636 charging stations in 62 cities across 24 States/UTs under FAME India (Faster Adoption and Manufacturing of Electric Vehicles in India) scheme phase II.**

What is FAME India Scheme?

. The FAME India (Faster Adoption and Manufacture of (Hybrid and) Electric Vehicles) Scheme, launched in 2015, is an incentive scheme for the promotion of electric and hybrid vehicles in the country.

. The scheme aims to promote electric mobility and the scheme gives financial incentives for enhancing electric vehicle production and creation of electric transportation infrastructure.

. The incentives are provided in the form of subsidies to manufactures of electric vehicles and infrastructure providers of electric vehicles.

. FAME India is a part of the National Electric Mobility Mission Plan. Main thrust of FAME is to encourage electric vehicles by providing subsidies.

Phase-I of the Scheme:

. The Phase-I of this Scheme was initially launched for a period of 2 years, commencing from 1st April 2015, which was subsequently extended from time to time and the last extension was allowed up to 31st March 2019.

. The 1st Phase of FAME India Scheme was implemented through four focus areas namely:

œ Demand Creation

œ Technology Platform

œ Pilot Project

œ Charging Infrastructure

. Market creation through demand incentives was aimed at incentivizing all vehicle segments i.e. 2-Wheelers, 3-Wheelers Auto, Passenger 4-Wheeler vehicles, Light Commercial Vehicles and Buses.

What's new in the second phase?

. FAME II will cover buses with EV technology; electric, plug-in hybrid and strong hybrid four wheelers; electric three-wheelers including e-rickshaws and electric two-wheelers.

- Under the second phase of the Faster Adoption and Manufacturing of Electric Vehicles in India (FAME-II) scheme, 10 lakh registered electric two-wheelers with a maximum ex-factory price will be eligible to avail incentive of Rs 20,000 each.

- It will also support 5 lakh e-rickshaws having ex-factory price of up to Rs 5 lakh with an incentive of Rs 50,000 each.

- FAME-II will offer an incentive of Rs 1.5 lakh each to 35,000 electric four-wheelers with an ex-factory price of up to Rs 15 lakh, and incentive of Rs 13,000 each to 20,000 strong hybrid four-wheelers with ex-factory price of up to Rs 15 lakh.

- It will support 7,090 e-buses with an incentive of up to Rs 50 lakh each having an ex-factory price of up to Rs 2 crore.

The current sanction:

- As many as 317 EV charging stations have been allotted in Maharashtra, 266 in Andhra Pradesh, 256 in Tamil Nadu, 228 in Gujarat, 205 in Rajasthan, 207 in Uttar Pradesh, 172 in Karnataka, 159 in Madhya Pradesh, 141 in West Bengal, 138 in Telangana, 131 in Kerala, 72 in Delhi, 70 in Chandigarh, 50 in Haryana, 40 in Meghalaya, 37 in Bihar, 29 in Sikkim, 25 each in Jammu & Kashmir and Chhattisgarh, 20 in Assam, 18 in Odisha and 10 each in Uttarakhand, Puducherry and Himachal Pradesh.

Benefits of using Electric Vehicles:

Though there are numerous benefits of using electric vehicles, the major are divided on the basis of environment and economy:

- **Environment:** Using electric vehicles (EVs) can significantly contribute in achieving the target of "Paris climate agreement". EVs are carbon dioxide neutral as there is no direct emission from the vehicle.

- **Economy:** EVs, more efficiently help in saving money of government, which can be utilized in other productive work. Effective adoption of electric and shared vehicles could help the economy save more than $60 billion in diesel and petrol along with cutting down as much as 1 gigatonne (GT) of carbon emissions, most probably by 2030.

ASIA PACIFIC DROSOPHILA RESEARCH CONFERENCE

◉ **CONTEXT**
- **Pune is set to host the fifth edition of the Asia Pacific Drosophila Research Conference (APDRC5), which is being organised in the country for the first time by the Indian Institute of Science Education and Research (IISER).**

About Asia Pacific Drosophila Research Conferences

- The Asia Pacific *Drosophila* Research Conferences (APDRC) are biennial events that aim to promote the interaction of *Drosophila* Researchers in the Asia-Pacific region with their peers in the rest of the world.

- The conference includes sessions, like Gametogenesis & Stem Cells, Pattern Formation, Morphogenesis & Mechanobiology, Hormones & Physiology, Cellular Neurobiology, Behavioural Neurobiology, Infection & Immunity, and Ecology & Evolution.

- The 5th Conference (6th Jan to 10th Jan) will feature 430 delegates: 330 Indian and 100 foreign.

- It will see the participation of two Nobel laureates**, professors Eric Wieschaus** and **Michael Rosbash,** known for their seminal contribution to the fields of developmental biology and chronobiology respectively.

- The last four editions of this conference took place in **Taipei, Seoul, Beijing** and **Osaka.**

What is Drosophila?

. The fruit fly (Drosophila melanogaster, 'Drosophila' hereafter) is the most extensively used and one of the most well understood of all the model organisms.

> A model organism is a species that has been widely studied, usually because it is easy to maintain and breed in a laboratory setting and has particular experimental advantages.

. Drosophila is ideal for the study of genetics and development.

. Several discoveries in biology have been made using this. Its genome is entirely sequenced and there is enormous information available about its biochemistry, physiology and behaviour.

. The complete genome sequence of the Drosophila was published in 2000.

. Its genome is 168,736,537 base pairs in length and contains 13,937 protein-coding gene

Why Drosophila is vital for humans?

. **Close similarities:** The relationship between fruit fly and human genes is so close that often the sequences of newly discovered human genes, including disease genes, can be matched with equivalent genes in the fly. 75 percent of the genes that cause disease in humans are also found in the fruit fly.

. **Easy observation:** Drosophila has a short, simple reproduction cycle. It is normally about 8-14 days, depending on the environmental temperature. This means that several generations can be observed in a matter of months.

. **Inexpensive researches:** Fruit fly is small (3 mm long) but not so small that they can't be seen without a microscope. This allows scientists to keep millions of them in the laboratory at a time. They are inexpensive to maintain in the laboratory.

. **Polytene chromosomes:** Drosophila has 'polytene' chromosomes, which means that they are oversized and have barcode-like banding patterns of light and dark. During early Drosophila research scientists could therefore easily identify chromosomal re-arrangements and deletions under the microscope.

. The long and distinguished history of research devoted to the study of the fruit fly means that a remarkable amount is now known about its biology.

The Indian Institute of Science Education and Research:

. The Indian Institute of Science Education and Research Pune is a premier institute dedicated to research and teaching in the basic sciences.

. It was established in 2006 by the Ministry of Human Resource Development. In 2012, it was declared as an Institute of National Importance by an Act of Parliament.

  œ It was ranked 601-800 in 2019 Times Higher Education (THE) World University Rankings

  œ It was ranked 109 in the 2019 THE Emerging Economies University Rankings

  œ It was ranked 401-500 in the Physical Sciences subject category in 2019 THE World University Rankings

  œ It was ranked 101-150 in the 2019 THE Young University Rankings

BHITARKANIKA CENSUS FINDS AN INCREASE OF 15 SALTWATER CROCODILES FROM LAST YEAR

◉ **CONTEXT**

• **The population of the saltwater or estuarine crocodile (Crocodylus porosus) has increased in the water bodies of Odisha's Bhitarkanika National Park and its nearby areas in Kendrapara district, with forest officials counting 1,757 individuals in this year's annual reptile census on January 3, 2020.**

◉ **ABOUT**

- The Bhitarkanika National Park, famous for the endangered saltwater crocodiles, has seen an increase of the rare species to 1,671, an annual census conducted by the Forest Department this year has found.

. The enumerators also sighted around 12 albino crocodiles and four giant crocodiles more than 20 feet long in the water bodies of Bhitarkanika during the census.

. In the Bhitarkanika area 1,580 and outside it 91 crocodiles were identified. In the Kanika 1,284, Rajnagar 296, Mahakalapada 69, Gahirmatha 22 were spotted.

. The peak winter is the ideal time to carry out the census as it exposes more than 50% of mud banks.

Bhitarkanika National Park

. Bhitarkanika National Park is located in northeast Kendrapara district in Odisha.

. It obtained the status of a Ramsar site in 2002.

. It is surrounded by Bhitarkanika Wildlife Sanctuary. Gahirmatha Beach and Marine Sanctuary is to the east, separating swamp region and mangroves from the Bay of Bengal.

. The national park and wildlife sanctuary is inundated by the rivers Brahmani, Baitarani, Dhamra, Pathsala.

. It hosts many mangrove species, and is the second largest mangrove ecosystem in India.

. The national park is home to saltwater crocodile, Indian python, king cobra, black ibis, darters and many other species of flora and fauna.

. This huge area of mangrove forests and wetlands is intersected by a network of creeks with Bay of Bengal on the East.

Saltwater Crocodile

. The saltwater crocodile is a crocodilian native to saltwater habitats and brackish wetlands from India's east coast across Southeast Asia and the Sundaic region to northern Australia and Micronesia.

. It has been listed as Least Concern on the IUCN Red List since 1996.

. The saltwater crocodile is often claimed to be the largest living crocodilian.

. Saltwater crocodiles can live more than 70 years.

. Saltwater crocodiles are most commonly found in coastal waters or rivers where they can swim between freshwater and brackish water.

. Saltwater crocodiles communicate using several sounds, including barking, hissing, growling and chirps.

DELHI GETS ITS FIRST SMOG TOWER: WHAT IS IT AND HOW DOES IT WORK?

◉ **CONTEXT**

- **The Supreme Court had directed the Centre and the Delhi government to prepare a plan to install 'smog towers' across the capital to deal with air pollution.**

◉ **ABOUT**

- Smog towers are structures designed to work as large-scale air purifiers.

. They are usually fitted with multiple layers of air filters, which clean the air of pollutants as it passes through them.

. The 20-metre (65 feet) high tower will trap particulate matter of all sizes suspended in the air.

. Large-scale air filters shall draw in the air through fans installed at the top before passing it through the filters and releasing it near the ground.

. The filters installed in the tower will use carbon Nano fibres as a major component and will be fitted along its peripheries.

. The smog tower is expected to purify around 2,50,000 to 6,00000 cubic meter air per day and release fresh air in return.

Who developed it?

. The project is collaboration between the Indian Institute of Technology (IIT) Bombay, IIT-Delhi and the University of Minnesota.

. The latter having helped design a similar tower of over 100 metres in China's Xi'an city.

. The Central Pollution Control Board (CPCB) will also be involved with the project.

Why does Delhi need smog towers?

. Delhi has in recent years been battling alarmingly toxic air quality every winter.

. Delhi's overall AQI in the "severe" category, according to the ministry of earth sciences' air quality monitor system of air quality and weather forecasting and research (SAFAR).

Other examples in the world

. China, which has been battling air pollution for years, has two smog towers — in its capital Beijing and in the northern city of Xi'an.

. The Xi'an tower is dubbed the world's largest, and has reportedly brought down PM 2.5 by 19% in an area of around 6 sq km in its vicinity.

. The 100-metre (328 feet) high tower has produced 10 million cubic metres of clean air every day since its launch, and on severely polluted days, is able to bring down smog close to moderate levels.

. The tower in Beijing, built by Dutch artist Daan Roosegaarde, has been able to compress the carbon waste generated during purification to produce gemstones.

Upon compression for 30 minutes, the smog particles turn into dark gems, which are used for rings and cufflinks.

INDIA CLIMATE REPORT 2019

◉ **CONTEXT**

• **Recently, India Meteorological Department (IMD) has released India Climate Report 2019.**

◉ **ABOUT**

• The India climate report 2019 confirms that the **extreme weather events have become par for the course in the country.**

. This is what climate scientists have been claiming for more than half a decade.

. It notes **that excessive heat, cold and rainfall killed 1,562 people in 2019.**

. I**n 2019, the mean temperature was 0.36 above normal** while the country also recorded excess rainfall during both the southwest and northeast monsoons.

. Intense dry spells were interspersed with floods in several parts of the country.

. This is a phenomenon that policymakers will increasingly be called to factor while drawing up projects in areas as diverse as agriculture, urban planning, water resources and disaster management.

. The IMD report should be seen in conjunction with long-term meteorological trends.

. The World Meteorological Organisation, for example, reckons that the decade starting

2011 remains on track to be the warmest on record.

- At the same time, data from the European Centre for Medium Range Forecast shows that the relative humidity in the mid-troposphere in the Subcontinent has increased by about 2% in the past four decades.

- Such warming has increased the capacity of oceans to form intense cyclonic disturbances.

Facts

- **India ranks 5th in Global Climate Risk Index** released by Environment think tank, **Germanwatch**.

- India has also recorded the highest number of fatalities due to climate change and the second highest monetary losses from its impact in 2018.

- India's high rank is due to severe rainfalls, followed by heavy flooding and landslide that killed over 1000 people.

Causes of India's vulnerability to Climate Risk

- India's increasing vulnerability is **due to severe rainfall, heavy flooding and landslide.**

- The state of Kerala was especially impacted. The floods were described as the worst of the last 100 years.

- India was struck by two cyclones in October and November 2018 that also nearly killed 1,000 people.

- India also suffered from **extreme heat**. While human death toll was kept considerably low due to public measures, the economic damages were quite severe

What needs to be done?

- Increasing **their resilience calls for efficient rainwater storage and use.**

- The changing dynamics of weather also demand cooperation between states that share a river basin.

- This year, Maharashtra and Karnataka debated over opening the gates of the Almatti dam on the Krishna. By the time the two states agreed over the amount of water to be discharged from the dam, the damage was already done.

◉ **CONCLUSION**

- It's clear that dealing with exceptional weather will require interventions at the national, state and local levels. The Statement on Climate of India 2019 drives home the urgency of such interventions. However, there is still no specific UN climate finance facility to reimburse the loss of land, culture and human lives. So far, the industrialised countries have refused to even negotiate it in 2019 Climate summit (CoP 25) at Madrid recently. The word climate body must wake up in establishing a financial facility to reimburse the loss of land, culture and human lives due to climate change.

MECOS 3: GLOBAL MARINE ECOSYSTEM MEET IN KOCHI

◉ **CONTEXT**

- **Recently, the third international conference on Marine Ecosystems-Challenges and Opportunities (MECOS) was held in Kochi in January, 2019.**

◉ **ABOUT**

- The conference is aimed at reviewing the concerns involved in marine ecosystem and formulating strategies for the better and sustainable utilisation of marine wealth by enhancing livelihood options.

- The symposium is organized by the **Marine Biological Association of India.**

. It will also serve as a platform for discussions on a range of topics, including the impact of the climate crisis on marine ecosystems and an unusual warming of the Arabian Sea.

. The conference would focus on the **Sustainable Development Goal of the United Nations, SDG-14** which says '**conserve and sustainably use the oceans and its resources for sustainable development'.**

Marine Biological Association of India

. The Marine Biological Association of India was established in the year **1958**.

. It serves the cause of promotion of research on marine sciences in the Asia-Pacific region.

. It also aims to create an active interest among its members in the field of marine biology and allied marine sciences.

Significance of the conference:

. Healthy oceans, coasts and related ecosystems are crucial for economic growth and food production.

. Billions of people worldwide, especially the world's poorest rely on healthy oceans to provide jobs and food underscoring the urgent need to sustainably use and protect this natural resource.

. However, numerous issues such as depletion of resources, marine pollution, extreme weather conditions and rising sea surface temperature pose a threat to the sustainable utilisation of marine resources.

. Hence, the conference would come up with a roadmap to deal with these issues.

◉ **CONCLUSION**
• Eminent marine scientists, oceanographers, fishery researchers and marine bio-technologists from across the globe has assembled in Kochi and stressed the need for the preservation or marine ecosystem. Moreover, the symposium itself has been designed in an eco-friendly way. No printed materials and single-use plastics will be used at the symposium. Natural materials will be used for presenting mementos to the guests and certificates will be sent to the participants in digital form. This will have stronger impact on the behavior of people as well the state and non-state actors to play a major role in marine ecosystem conservation.

KERALA TO CURB ALIEN PLANTS' GROWTH IN NBR

◉ **CONTEXT**
• **The Forest and Wildlife Department is planning to adopt steps to arrest the rampant growth of invasive plants, especially *Senna spectabilis*, in the forest areas of the Nilgiri Biosphere Reserve (NBR), including the Wayanad Wildlife Sanctuary.**

The need:

. The spread of invasive plants, especially Senna spectabilis, is posing a major threat to the forest areas of the reserve, owing to its quick growth and coppicing character.

. **Invading larger areas:** A recent study of the Ferns Nature Conservation Society recorded the presence of the plant in 78.91 sq km area of the sanctuary. The tree species was found in nearly 10 sq km area of the 344.44 sq km sanctuary around five years ago. Now, it had invaded to more than 50 sq km of the sanctuary.

. **Emerging as a trap for open lands:** Due to mass flowering and drying of bamboo species in Wayanad, lots of open spaces were created which had been occupied by *Senna spectabilis*. The vayal ecosystem (marshy land) of the forest area now has this plant in large numbers.

. **Threat to tiger reserves:** With the adjacent tiger reserves (Bandipur and Nagarhole tiger reserves in Karnataka and the Mudumalai tiger reserve in Tamil Nadu) also under threat.

What are the Invasive alien species?

. Invasive alien species are plants, animals, pathogens and other organisms that are non-native to an ecosystem, and which may cause economic or environmental harm or adversely affect human health.

. In particular, they impact adversely upon biodiversity, including decline or elimination of native species - through competition, predation, or transmission of pathogens - and the disruption of local ecosystems and ecosystem functions.

. In 2016, the Zoological Survey of India (ZSI) has for the first time compiled a list of 157 alien invasive animal species.

. Out of the total species, 99 are found in the marine ecosystem, while 58 are found on land and in freshwater habitat.

. The species found on land and in freshwater comprise of 19 fish species, 31 species of anthropods, 3 of molluscs and birds, 2 of mammals and 1 of reptile.

. Among 99 alien invasive marine species, genus Ascidia accounts for maximum number of species (31), followed by Arthropods (26), Annelids (16), Cnidarian (11), Bryzoans (6), Molluscs (5), Ctenophora (3), and Entoprocta (1).

. Some important species include: **African apple snail (*Achatina fulica*), Papaya Mealy Bug (*Paracoccus marginatus*), Cotton Mealy Bug (*Phenacoccus solenopsis*), Amazon sailfin catfish (*Pterygoplichthys pardalis*)** and others.

Senna Spectabilis:

. Senna spectabilis is a medium to large tree from tropical America, listed in the Global Compendium of Weeds as an 'environmental weed', 'garden thug', and 'naturalised weed'.

. The species is extremely fast-growing, flowers and sets seed profusely, and re-sprouts readily when cut.

. An adult tree grows up to 15 to 20 metres in a short period of time and every year distributes thousands of seeds after gregarious flowering.

. The thick foliage arrests the growth of other indigenous tree and grass species and causes food shortage for the wildlife population, especially herbivores.

Why alien plants are so dangerous?

. **Greatest threat to biodiversity:** Invasive alien species, introduced and/or spread outside their natural habitats, have affected native biodiversity in almost every ecosystem type on earth and are one of the greatest threats to biodiversity.

. **Contributor to animal extinction:** Since the 17th century, invasive alien species have contributed to nearly 40% of all animal extinctions for which the cause is known (CBD, 2006).

. **Problem for ecology and economy:** The problem continues to grow at great socio-economic, health and ecological cost around the world. Invasive alien species exacerbate poverty and threaten development through their impact on agriculture, forestry, fisheries and natural systems, which are an important basis of peoples' livelihoods in developing countries.

. This damage is aggravated by climate change, pollution, habitat loss and human-induced disturbance.

KVIC OPENED FIRST SILK PROCESSING PLANT IN GUJARAT TO BOOST PRODUCTION OF SIGNATURE PATOLA SAREE

⊙ **CONTEXT**

- **In a historic initiative taken by Khadi and Village Industries Commission (KVIC), a first Silk Processing Plant was inaugurated at Surendranagar in Gujarat.**

⊙ **ABOUT**

- This would help cut down the cost of production of silk yarn drastically and increase the sale and availability of raw material for Gujarati Patola Sarees locally.

. Patola, the trademark Saree of Gujarat, is considered to be very costly and worn only by the Royals or the Aristocrat.

. Cocoons will be brought from Karnataka and West Bengal and Silk yarn will be processed in house, thus reducing the cost of production and giving a major boost to the sale of famous Gujarati Patola Sarees.

. Traditionally, every region in India has had its own unique weave for the Silk Saree.

. It is quite notable that Patola Silk Saree is amongst the top five silk weaves which are desired.

The Khadi and Village Industries Commission (KVIC)

. The Khadi and Village Industries Commission (KVIC) is a statutory body formed by the Government of India, under the Act of Parliament, 'Khadi and Village Industries Commission Act of 1956'.

. It is an apex organisation under the Ministry of Micro, Small and Medium Enterprises, with regard to khadi and village industries within India.

. It seeks to - "plan, promote, facilitate, organise and assist in the establishment and development of khadi and village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.

. The KVIC may also undertake directly or through other agencies studies concerning the problems of Khadi and/or village industries besides research or establishing pilot projects for the development of Khadi and village industries.

. The KVIC is authorized to establish and maintain separate organisations for the purpose of carrying out any or all of the above matters besides carrying out any other matters incidental to its activities.

. The broad objectives that the KVIC has set before it are:

œ The social objective of providing employment.

œ The economic objective of producing saleable articles.

œ The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit.

Patola Saree

. Patola is the trademark Saree of Gujarat.

. Patola is a double ikat woven sari, usually made from silk, made in Patan.

. The word patola is the plural form; the singular is patolu.

. It is one of the most eminent symbols of Indian Craftsmanship.

. It is priced very high and is out of reach of common women.

. The raw material is purchased from Karnataka or West Bengal, where the silk processing units are situated. This increases the cost of fabric manifolds.

. Velvet patola styles are also made in Surat.

. It can take six months to one year to make one sari due to the long process of dying each strand separately before weaving them together.

. Highly valued in Indonesia, became part of the local weaving tradition there.

. The sarees are painted with motifs and patterns inspired from animals and other elements of nature.

Even though the Patola fabric is said to be of Gujarati origin, its earliest mentions can be found in religious texts mentioning that they were a part of the South Indian culture too.

NATIONAL COMPANY LAW APPELLATE TRIBUNAL (NCLAT)

◉ **CONTEXT**

• **Recently, National Company Law Appellate Tribunal (NCLAT) has reinstated Cyrus Mistry as chairman of Tata Sons.**

◉ **ABOUT**

• **N**ational Company Law Appellate Tribunal (NCLAT) was constituted under **Section 410 of the Companies Act, 2013** for hearing appeals against the orders of National Company Law Tribunal(s) (NCLT), with effect from 1st June, 2016.

. **Hon'ble Justice Shri S.J. Mukhopadhaya**, former Judge of the Supreme Court, is now the Chairperson of NCLAT.

Functions:

. NCLAT is also the Appellate Tribunal for hearing appeals against the orders passed by NCLT(s) under Section 61 of the Insolvency and Bankruptcy Code, 2016 (IBC), with effect from 1st December, 2016.

. NCLAT is also the Appellate Tribunal for hearing appeals against the orders passed by Insolvency and Bankruptcy Board of India under Section 202 and Section 211 of IBC.

. NCLAT is also the Appellate Tribunal to hear and dispose of appeals against any direction issued or decision made or order passed by the Competition Commission of India (CCI) – as per the amendment brought to Section 410 of the Companies Act, 2013 by Section 172 of the Finance Act, 2017, with effect from 26th May, 2017.

Composition:

. The President of the Tribunal and the chairperson and Judicial Members of the Appellate Tribunal shall be appointed after consultation with the Chief Justice of India.

. The Members of the Tribunal and the Technical Members of the Appellate Tribunal shall be appointed on the recommendation of a Selection Committee consisting of:

œ Chief Justice of India or his nominee—Chairperson.

œ A senior Judge of the Supreme Court or a Chief Justice of High Court— Member.

œ Secretary in the Ministry of Corporate Affairs—Member.

œ Secretary in the Ministry of Law and Justice—Member.

œ Secretary in the Department of Financial Services in the Ministry of Finance— Member.

◉ **CONCLUSION**

• Tribunals have released pressure on ordinary courts. NCLAT has been doing well in adjudicating the business and company matters and saves times and resources of the involved parties.

SC ON PROHIBITION OF CHILD MARRIAGE ACT, 2006

◉ **CONTEXT**

- In a recent judgement, the Supreme Court has held that that the anti-child marriage law does not intend to punish a male aged between 18 and 21 years for marrying a "female adult".

Supreme Court's stand:

. A Bench led by Justice Mohan M. Shantanagoudar was interpreting **Section 9** of the **Prohibition of Child Marriage Act, 2006**, which says:

"Whoever, being a ***male adult above 18 years of age, contracts a child marriage shall be punishable with rigorous imprisonment which may extend to two years or with fine which may extend to one lakh ru***pees or with both."

. The court said neither does the provision punish a child for marrying a woman nor a woman for marrying a male child.

. The sole objective of the provision is to punish a man for marrying a minor girl. "The intention behind punishing only male adults contracting child marriages is to protect minor girls,"

. The 2006 Act also gives an option for prospective grooms who are between 18 and 21 years old to opt-out of marriages.

◉ **BACKGROUND**

- The case at hand concerned a boy who married a 21-year-old woman when he was 17 years old.

. The Punjab and Haryana High Court had set aside its own order providing protection to the couple and initiated prosecution against the boy for contracting a child marriage, in which he himself was the child.

. The Supreme Court set aside the HC order, saying the intent behind Section 9 was not to punish a child for contracting a child marriage.

What is the Prohibition of Child Marriage Act, 2006?

. The Prohibition of Child Marriage Act, 2006 (PCMA, 2006) recognises child marriage as valid but "voidable" at the option of the minor involved the amendment will make all future child marriages in the country invalid from the outset.

. The Act in its current form makes the marriage of a man who is over 18 years with a woman under 18 a cognisable and a non-bailable offence punishable with imprisonment of two years and a fine of Rs 1 lakh but recognises the union as valid.

. The following persons can be punished under the Law include:

œ Whoever performs, conducts or directs or abets any child marriage (Section 10, PCMA 2006)

œ A male adult above 18 years marrying a child (Section 9, PCMA 2006)

œ Any person having charge of the child, including –

> parent or guardian

> any member of organisation or association, promoting, permitting, participating in a child marriage or failing to prevent it (Section 11, PCMA 2006).

BIBI KA MAQBARA

⦿ **CONTEXT**

- **The marble domes of Bibi Ka Maqbara, the famous 17th-century Mughal-era monument in the city, are set to get a new shine.**

Bibi Ka Maqbara:

. The structure, known as the 'Taj of the Deccan' because of its striking resemblance to the Taj Mahal, was built in 1668 by Azam Shah, the son of Aurangzeb to commemorate his mother Dilras Begum who was titled Rabia Durani post her death.

. Also called the **Tomb of the Lady**, Bibi Ka Maqbara was designed by Ataullah, the son of Ahmad Lahauri, the architect of the Taj Mahal which explains its appearance heavily based on the prime marvel.

. According to the "Tarikh Namah" of Ghulam Mustafa, the cost of construction of the mausoleum was Rs. 6,68,203 - 7,00,000.

. Bibi Ka Maqbara or tomb of Rabia Durani stands as a lone soul in the southern part.

. It was Aurangzeb's long-standing governorship of Aurangabad that the shrine came to exist in the city and is today one of the most famous historical monuments in Maharashtra.

The story of Dilras Banu:

. Dilras Banu, born in the Safavid royal family of Iran, was the daughter of Shahnawaz Khan who was the then viceroy of the state of Gujarat.

. She married Aurangzeb in 1637 thus becoming his first consort and wife.

. Both Aurangzeb and his eldest son, Azam Shah couldn't bear the loss of the most important woman in their lives.

. It was then in 1668 that Azam Shah ordered for a mausoleum to be built for his beloved mother on the lines of Taj Mahal, which was the resting place of Banu's mother-in-law and Aurangzeb's mother, Mumtaz Mahal.

Conservation of the structure:

. The domes and other marble parts of the mausoleum will undergo scientific conservation.

. The domes and minarets of the structure, which are built-in marble, as well as the marble screens inside would undergo scientific conservation.

. The conservation work will involve cleaning and carrying out a chemical treatment to give it a new glow.

Archaeological Survey of India:

. The Archaeological Survey of India, established in 1861 is an attached office under the Ministry of Culture dedicated to the protection, preservation and conservation of the national monuments.

. It is a multidisciplinary organization including exploration and excavation, chemical conservation, Horticultural operation, Museum, underwater archaeology, Pre-History Branch, Epigraphy, Publication etc.

. With the expansion of the Survey, the scope and sphere of the activities of all the branches increased rapidly. As on today, there are 3667 centrally protected monuments including 22 World Heritage Monuments/Sites.

. The present organization is the successor of '**The Asiatic Society of India'**, which was founded in its current form in 1861 by Sir Alexander Cunningham with the help of the then Viceroy Canning.

WHAT IS THE HISTORICAL SIGNIFICANCE OF NANKANA SAHIB IN PAKISTAN?

◉ **CONTEXT**

- **Tension mounted in Nankana Sahib in Pakistan and there was outrage in India after a mob, led by the family of a Muslim man who had married a Sikh teenage girl, hurled stones at Gurdwara Janam Asthan, the birthplace of Guru Nanak Dev, and threatened to convert it into a mosque.**

◉ **ABOUT**

- Nankana Sahib is a city of 80,000 in Pakistan's Punjab province, where Gurdwara Janam Asthan (also called Nankana Sahib Gurdwara) is located.

. The shrine is built over the site where Guru Nanak, the founder of Sikhism, was believed to be born in 1469.

. It is 75 kms to the west of Lahore, and is the capital of Nankana Sahib district.

. The city was previously known as Talwandi, and was founded by Rai Bhoi, a wealthy landlord.

. Rai Bhoi's grandson, Rai Bular Bhatti, renamed the town 'Nankana Sahib' in honour of the Guru. 'Sahib' is an Arabic-origin epithet of respect.

Other information

. Besides Gurdwara Janam Asthan, Nankana Sahib has several important shrines, including Gurdwara Patti Sahib, Gurdwara Bal Leela, Gurdwara Mal Ji Sahib, Gurdwara Kiara Sahib, Gurdwara Tambu Sahib — all dedicated to stages in the life of the first Guru.

. There is also a Gurdwara in memory of Guru Arjan (5th Guru) and Guru Hargobind (6th Guru).

. Guru Hargobind is believed to have paid homage to the town in 1621-22.

. The Janam Asthan shrine was constructed by Maharaja Ranjit Singh, after he visited Nankana Sahib in 1818-19 while returning from the Battle of Multan.

. During British rule, the Gurdwara Janam Asthan was the site of a violent episode when in 1921, over 130 Akali Sikhs were killed after they were attacked by the Mahant of the shrine.

. The incident is regarded as one of the key milestones in the Gurdwara Reform Movement, which led to the passing of the Sikh Gurdwara Act in 1925 that ended the Mahant control of Gurdwaras.

. Until Independence, Nankana Sahib's population had an almost equal number of Muslims, Sikhs, and Hindus, which since Partition has been predominantly Muslim.

Other important places

. **Gurdwara Nankana Sahib (Janam Asthan):** Gurdwara Nankana (Janam Asthan) is built at the site of Guru Nanak Dev's birthplace and childhood home. It is the most prominent of all the gurdwaras located in the town of Nankana, Pakistan. It is the host of annual gurpurab festivities commemorating Guru Nanak's birth which are celebrated on the full moon in the latter part of the year.

. **Gurdwara Bal Lilah**: Gurdwara Bal Lilah is one of several gurdwaras which dot the town Nankana. It is located in an area where Guru Nanak used to play as a boy with his friends.

. **Gurdwara Kiara Sahib**: Gurdwara Kiara Sahib is one of several small gurdwaras in Nankana. It stands on the site of the former pasture where a miraculous incident occurred when Guru Nanak's cattle destroyed a farmer's crops while he meditated.

. **Gurdwara Mall Ji Sahib**: Gurdwara Mall Ji Sahib is one of the smallest gurdwaras in Nankana. It is built site of the former pasture where both the incident of the Jal tree, and Guru Nanak's encounter with a cobra took place. The interior of the gurdwara is decorated with ancient ceramic tiles, about four inches square, each depicting a cobra.

CYBER SAFE WOMEN

⦿ **CONTEXT**

- **Maharashtra Government has launched a 'Cyber Safe Women' initiative to educate women about how the web is used by anti-social elements and child predators to commit various types of crimes.**

About the initiative:

. The Cyber Safe Women initiative aims to create awareness on the cyberspace in light of the increasing number of cases where women and children are targeted.

. This initiative was launched in 34 districts and 90 places across the state, all at once.

. It will help in educating women about how the web is used by anti-social elements and child predators to commit various types of crimes.

Cybercrimes in India:

Cybercrime is defined as a crime in which a computer is the object of the crime (hacking, phishing, spamming) or is used as a tool to commit an offence (child pornography, hate crimes). Cybercrime encompasses a wide range of activities, but these can generally be broken into two categories:

. Crimes that target computer networks or devices. These types of crimes include viruses and denial-of-service (DoS) attacks.

. Crimes that use computer networks to advance other criminal activities. These types of crimes include Posting of obscene photographs, Child pornography, Online theft of personal data, Sending fake e-mail messages to get personal information, Misusing personal information, Inciting religious feeling of hatred, Online theft and Fake financial transaction etc.

. As per a recent ASSOCHAM-NEC joint study, India has witnessed a 457% rise in cybercrime incidents under the Information Technology (IT) Act, 2000 from the year 2011 to 2016.

. India is ranked third after the United States and China in terms of cybercrime incidents.

. According to the annual report released by the National Crime Records Bureau (NCRB) in 2016, with 762 cases, Bengaluru had the second-highest number of cybercrime cases among the metros, behind Mumbai with 980 cases.

. Other metro cities were far behind, with Hyderabad recording 291 cases, Kolkata 168, Delhi 90 and Chennai 36.

Favourite techniques of Cybercriminals to steal computer:

. **Phishing:** Phishing is a fake email masquerading as legitimate. Hackers create phishing emails through which they intend to steal your confidential information like passwords and bank account details. This kind of email appears to have come from a well-known person or organisation like your bank or company that you work for. These emails generally try to create urgency or panic to trick users into giving out their personal details.

. **Malware:** It is malicious software that is written with the intent of compromising a system and stealing the data available on the system. It can steal or delete sensitive data, modify the system's core functionalities, and secretly track the victim's activities.

. **Cyberextortion:** This cybercrime involves an attack or threat of an attack coupled with a demand for money to stop the attack.

. **Cryptojacking:** It is the illegal use of another person's computer to mine cryptocurrency.

. **Ransomware:** It is a form of malware that locks a user out of files or devices and then demands online payment anonymously to restore access. Threats to mobile devices and crypto-jacking were also increasing.

Legal frameworks to deal with cybercrimes:

Following are the protection provided under the Indian legal framework against cybercrimes in India:

. **Indian Penal Code, 1860:** Indian Penal code (IPC) is India's universal criminal law. Thus, it covers almost all the crime.

œ IPC, 1860 was amended to include the word "electronic" and expanding its scope by treating electronic records and documents on a par with physical records and documents.

œ Sections such as 192, 204, 463, 464, 464, 468 to 470, 471, 474, 476 which deal with the false document or false entry were also amended to include 'electronic record and electronic document'.

. **Information Technology Act 2000:** The IT Act deals with cybercrime and electronic commerce in India. It provides legal recognition to e-commerce and e-governance and facilitates its development as an alternative to paper-based traditional methods.

œ Though the Act does not expressly define cyber-crime but includes both cyber-crimes and cyber contraventions.

œ The important provision related to cyber-crime and their punishments are as given below:

Section	Particulars
Section 43	Damaging the computer system
Section 66	Offences related to computer
Section 67	Publication or transmission of obscene material in electronic form
Section 68	Not complying with the direction of the controller
Section 70	Protected system
Section 72	Breaking confidentiality of the information of computer
Section 73	Publishing of false digital signatures
Section 74	Publishing of digital signature for fraudulent people

TULU LANGUAGE

◉ **CONTEXT** • There has been a growing demand to include Tulu in the Eighth Schedule of the

Constitution. At present, Tulu is not an official language in India or any other country.

◉ **ABOUT**

- **Tulu is a Dravidian language** whose speakers are concentrated in the region of **Tulu Nadu**, which comprises the districts of **Dakshina Kannada and Udupi in Karnataka and the northern part of Kasaragod district of Kerala.**

. **Kasaragod** district is called *'Sapta bhasha Samgama Bhumi* (the confluence of seven languages)', and Tulu is among the seven.

. **The oldest available inscriptions in Tulu are from the period between 14th to 15th century AD.**

Case for Inclusion in the Eighth Schedule

. **Global Efforts:** The **Yuelu Proclamation** made by United Nations Educational Scientific and Cultural Organization (UNESCO) at Changsha, China, in 2018 plays a central role in guiding the efforts of countries and regions around the world to protect linguistic resources and diversity.

> **Yuelu Proclamation**
>
> . Yuelu Proclamation was adopted at the first international conference on language resources protection in Changsha, Central China's Hunan province in 2018 by UNESCO. It is a document on protection and promotion of the world's linguistic diversity.
>
> . It calls upon the international community, states, governments and non-governmental organizations, among others, to reach a consensus on the protection and promotion of linguistic diversity in the world.

. The United Nations General Assembly has proclaimed **2019 as the International Year of Indigenous Languages (IYIL)**. The IYIL 2019 strives to preserve, support and promote indigenous languages at the national, regional and international levels.

. **Constitutional Safeguard:** Article 29 of the Indian Constitution deals with the "Protection of interests of minorities". It states that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.

. **Number of Speakers:** According to Census-2011, there are more than 18 lakh native speakers of Tulu in India. The Tulu-speaking people are larger in number than speakers of Manipuri and Sanskrit, which have the Eighth Schedule status.

. **Literary Recognition:** Robert Caldwell (1814-1891), in his book, A Comparative Grammar of the Dravidian or South-Indian Family of Languages, called Tulu as "one of the most highly developed languages of the Dravidian family".

Advantages of Recognition in Eighth Schedule

. If included in the Eighth Schedule, Tulu would get the following benefits

. Recognition from the Sahitya Akademi.

. Translation of Tulu literary works into other languages.

. Members of Parliament (MP) and Member of the Legislative Assembly (MLA) could speak Tulu in Parliament and State Assemblies, respectively.

. Option to take competitive exams in Tulu including all-India competitive examinations like the Civil Services exam.

. Special funds from the Central government.

. Teaching of Tulu in primary and high school.

◉ **WAY FORWARD**

- India has a lot to learn from the Yuelu Proclamation. Placing of all the deserving languages on equal footing will promote social inclusion and national solidarity.

. It will reduce inequalities within the country to a great extent. So, Tulu, along with other deserving languages, should be included in the Eighth Schedule of the Constitution in order to substantially materialise the promise of equality of status and opportunity

mentioned in the Preamble.

CENTRALISED ACCESS CONTROL SYSTEM (CACS) &TRAINING MODULE OF E-BCAS

◉ **CONTEXT**

- **In the latest development, the government has launched the Biometric enabled Centralised Access Control System (CACS) and 'e-BCAS Project Training Module', with the objective to enhance security and ease of doing business at airports.**

Knowing the Projects:

. **Centralised Access Control System (CACS) Project:**

œ CACS project is aimed to digitize the employee movement process at the airports.

œ It covers 43 Airports of AAI (Airports Authority of India) and 5 Joint Venture (JV) airports.

œ This multi-layered security system encompasses the uniqueness of the Airport Entry Permit (AEP) users, biometric authentication in addition to PIN-based identity verification through contactless smart card technology.

œ It will manage access of personnel along with RFID based automated vehicle access control system according to the region, terminal, zone, and gate access privileges.

œ The cost of the card is Rs. 225, which shall be valid for three years.

œ Biometric ID (Biometric enabled Centralised Access Control System having chip-embedded smart AEPs) thus issued, is non-duplicable.

œ **Benefits:**

> The project is bound to assist around 2 Lakhs employees of various stakeholders who move in and out of the airport on a daily basis.

> It will facilitate:

. the ease of processing

. enhanced security

. prevent unauthorized entry into the airport

. alert authorities to an attempted intrusion or other irregularities for immediate response

. **e-BCAS Project Training Module:**

œ The '**e-BCAS Project: Training Module'** is aimed at helping more than 1.5 lac employees of various stakeholders by migrating from manual process of training to a digital platform.

œ All 29 Aviation Security Training Institutes (ASTIs) have been registered as user entities and now they can make nominations for various courses online.

œ Moreover, the system will also allow its users to check the approvals by BCAS, declaration of results and QR coded online certificate generation will also be done through this project only.

œ This would result in making the entire training ecosystem of BCAS transparent as well as efficient.

A move towards paperless office:

. The 'e-BCAS' project envisaged achieving a "paperless office" under e-Governance initiative of GoI.

. It is aimed at facilitating external stakeholders to access BCAS system by digital automation of all internal office procedures in 2016, the project was approved by Ministry of Civil Aviation (MoCA) at an estimated cost of Rs.21.69 crore.

. The e-BCAS project included Training module, Quality Control and Operational module and Administration etc.

. After modifications, the current training module part has been completed at an estimated cost of Rs.30.00 lakhs approximately only.

. In due course of time, with the integration of all three modules into the platform of e-BCAS, the processing time in giving clearances and approvals will be reduced considerably.

. These steps will ease the process of training, audit/inspections, enhance the throughput as well as a lot of time, energy and precious man-hours of all stakeholders.

Benefits:

. **It will benefit by:**

œ By making all the activities in the BCAS transparent, user-friendly, and efficient

œ By providing ease of doing business with the stakeholders

œ By achieving the aim of the paperless office.

PROJECT NETRA

⊙ **CONTEXT**

• **The Indian Space Research Organization (ISRO) has initiated 'Project NETRA' to safeguard Indian space assets from debris and other harm.**

What is Project NETRA?

. Project NETRA is an early warning system in space to detect debris and other hazards to Indian satellites.

. The project is estimated to cost 400 crores.

. NETRA's eventual goal is to capture the GEO, or geostationary orbit, the scene at 36,000 km where communication satellites operate.

. Under NETRA, or Network for space object Tracking and Analysis, the ISRO plans to put up many observational facilities:

œ connected radars, telescopes

œ data processing units

œ a control centre

. They can, among others, spot, track and catalogue objects as small as 10 cm, up to a range of 3,400 km and equal to a space orbit of around 2,000 km.

How ISRO will achieve this?

. In the plans, are a high-precision, **long-range telescope in Leh** and a radar in the North East.

. With these, ISRO will also use the **Multi-Object Tracking Radar (MOTR)** at the Satish Dhawan Space Centre in Sriharikota, and the telescopes at Ponmudi and Mount Abu to get a broad SSA picture.

What is Space Situational Awareness (SSA)?

. Space Situational Awareness (SSA) refers to the capability of detecting and tracking man-made and natural threats.

. India's SSA will be first for low-earth orbits or LEO which have remote-sensing spacecraft.

. The new SSA centre would consolidate debris tracking activities that are now spread across ISRO centres.

. The SSA also has a military quotient to it and adds a new ring to the country's overall security.

Why space debris matters?

. Space debris could be floating particles from dead satellites or rocket parts that stay in orbit for many years.

. Satellite agencies agonise over even a speck of paint or fragment floating towards their spacecraft as it can disable onboard electronics and cripples the satellite worth several hundred crore rupees besides many services that run on it.

. Agencies constantly look for debris at the time of launch and through the life of a satellite.

The need:

. Though India still has a collision avoidance manoeuvres on its satellites. But to do that, the country depends on data from NORAD and others available in the public domain.

> NORAD, or the North American Aerospace Defense Command, is an initiative of the U.S. and Canada that shares selective debris data with many countries.

. But, the country, do not get accurate or comprehensive information.

. Currently, there are 15 functional Indian communication satellites in the geostationary orbit of 36,000 km; 13 remote sensing satellites in LEO of up to 2,000 km; and eight navigation satellites in medium earth orbits.

. By establishing an observation system of its own, India will become part of the global network and can access precise data.

Significance of the project:

. **Capability to predict threats from debris:** Once in place, the project will give India its own capability in space situational awareness (SSA) like the other space powers, which is used to 'predict' threats from debris to Indian satellites.

. **An eye for space attacks:** It also goes so far as to serve as an unstated warning against missile or space attack for the country.

. **Contributing in international efforts:** NETRA effort would make India a part of international efforts towards tracking, warning about and mitigating space debris.

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CURRENT AFFAIRS ANALYST
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SECTION: A
(MAINS)
CURRENT AFFAIRS

A NEW CONTROVERSY ON INDIA'S FISCAL DEFICIT

CONTEXT

. Former Economic Affairs secretary, has claimed that the actual fiscal deficit for the last financial year and the current one is more than a full percentage point higher than the official data.

. India's fiscal deficit, which essentially maps how much money the Indian government has to borrow to make up the gap between its expenditure and its revenues, was just 3.4 per cent of the gross domestic product (GDP) for 2018-19.

⊙ ABOUT

Current Scenario-

œ All government expenditure, revenues and debts are required to be carried out through the Consolidated Fund of India (CFI).

œ If it is done so, the fiscal deficit of the Government should equal to the additional debt incurred during the year, all recorded in the CFI.

œ But all these transactions are not recorded through the CFI all the time. Some debt/liabilities are not assumed outside the CFI — either in the Public Account or totally outside the formal accounting system of the Government i.e. outside CFI and Public Account. Such transactions are described popularly as Below the Line, Off Budget etc.

œ Equity infusion in the Public Sector Banks (PSBs), during last few years, has been done by deducting debt received by the Government of India in from the PSBs from the equity investments made.

œ As a result, there is no impact of such expenditure/ investment on fiscal deficit but the debt and liabilities stock of the Government goes up.

Fiscal Deficit:

œ Fiscal Deficit is the difference between the Revenue Receipts plus Non-debt Capital Receipts (NDCR) and the total expenditure.

œ In other words, fiscal deficit is "reflective of the total borrowing requirements of Government".

œ The gross fiscal deficit (GFD) is the excess of total expenditure including loans net of recovery over revenue receipts (including external grants) and non-debt capital receipts.

œ The net fiscal deficit is the gross fiscal deficit less net lending of the Central government.

Significance of fiscal deficit:

œ The significance of fiscal deficit is that if this ratio is too high, it implies that there is a lesser amount of money left in the market for private entrepreneurs and businesses to borrow.

œ Lesser amount of this money, in turn, leads to higher rates of interest charged on such lending.

œ A higher fiscal deficit means higher borrowing by the government, which, in turn, mean higher interest rates in the economy.

œ A high fiscal deficit and higher interest rates at a current scenario like this would also mean that the efforts of the Reserve Bank of India to reduce interest rates are undone.

Implications of Fiscal Deficit:

œ **Debt Trap:** Borrowings not only involve repayment of principal amount, but also require payment of interest. Interest payments increase the revenue expenditure, which leads to revenue deficit. It creates a vicious circle of fiscal deficit and revenue deficit, wherein government takes more loans to repay the earlier loans. As a result, country is caught in a debt trap.

œ **Inflation:** Government mainly borrows from Reserve Bank of India (RBI) to meet its fiscal deficit. RBI prints new currency to meet the deficit requirements. It increases the money supply in the economy and creates inflationary pressure.

œ **Foreign dependence:** Government also borrows from rest of the world, which raises its dependence on other countries.

Acceptable level of fiscal deficit?

œ There is no set universal level of fiscal deficit that is considered good. Typically, for a developing economy, where private enterprises may be weak and governments may be in a better state to invest, fiscal deficit could be higher than in a developed economy.

œ In developing economies, governments also have to invest in both social and physical infrastructure upfront without having adequate avenues for raising revenues.

œ In India, the Fiscal Responsibility and Budget Management Act requires the central government to reduced its fiscal deficit to 3 per cent of GDP. India has been struggling to achieve this mark.

Financing a Deficit

œ All deficits need to be financed. This is initially done through the sale of government securities, such as Treasury bonds (T-bonds).

œ Individuals, businesses, and other governments purchase Treasury bonds and lend money to the government with the promise of future payment.

œ The clear, initial impact of government borrowing is that it reduces the pool of available funds to be lent to or invested in other businesses.

Recent steps by Govt-

œ Government of India is recently issuing Fully Serviced Bonds (FSBs). These bonds are raised outside the CFI and Public Account and used from special purpose vehicles outside budget/ accounts to pay off the government expenditure/ subsidy.

œ Interest and principals of these liabilities are serviced by the Government at the time of payment. These bonds don't enter into calculations of either fiscal deficit or the debt and liabilities of the Government.

œ The government has also been paying off food subsidy liability by providing cash from the National Small Savings Fund (NSSF).

œ Such transactions have the effect of reducing fiscal deficit and not showing up in the Debt and Liabilities of the Government.

Recent trends-

œ Fiscal deficit of the Union government rose to 114.8 per cent of the target in the first eight months of the fiscal year as per the data released by the Controller General of Accounts.

œ The gap between the government's revenue and spending is at Rs 8.07 trillion at the end of November — Rs 1 trillion (13 per cent) more than the full-year target.

œ A persistent contraction in gross tax revenue, with expenditure growing consistently, has put pressure on government finances, resulting in a larger deficit

œ The corporation tax collection contracted to 1 per cent in April–November on the revenue side, budgetary capital spending on roads took the worst hit on the expenditure side.

œ Income support to farmers and food subsidy bills have taken a graver hit in terms of revenue expenditure.

Measures need to be taken-

œ Fiscal consolidation is important from the point of view of the credibility of policy-making.

œ A drastic reduction in expenditure on major subsidies such as food, fertilisers, exports, electricity to curtail public expenditure. A huge sum of money equal to Rs. 20,000 crores are spent on major subsidies on food, fertilisers, export promotion by the central government.

œ Interest payments account for about 40 per cent of expenditure on revenue account of the central government. Funds raised through disinvestment in the public sector should be used to retire a part of old public debt rather than financing current expenditure.

œ To reduce fiscal deficit and thereby check rise in inflation rate, apart from reducing government expenditure, government revenue has to be raised.

œ To increase revenue from taxation, tax base should be broadened by taxing agricultural incomes and incomes derived from unorganised industrial and services sectors.

œ There should be restructuring of public sector enterprises so that they should make some surpluses at least for their own development so that their dependence on government's budgetary resources should be dispensed with. For this purpose, their pricing policy should be such that it rsecovers at least user cost.

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ANALYSIS OF INDIA'S CHEMICAL INDUSTRY

CONTEXT

. **India's chemical industry, the sixth-largest in the world, continues to expand dangerously.**

⊙ BACKGROUND

India's Chemical Industry:

œ India's Chemicals industry is highly diversified, covering more than 80,000 commercial products.

œ It is broadly classified into Bulk chemicals, Specialty chemicals, Agrochemicals, Petrochemicals, Polymers and Fertilizers.

œ India is a strong global dye supplier, accounting for approximately 16% of the world production of dyestuff and dye intermediates.

œ In 2017-18, the sector produced 49 million tonnes of chemicals and petrochemicals. Alkaline accounts for 69 per cent of India's chemical production and polymer accounts for 59 per cent of petrochemical production.

œ The domestic chemicals industry will reach $304 billion by 2025 from the current $163 billion.

œ Furthermore, India will develop manufacturing hubs at Dehej in Gujarat, Vishakhapatnam in Andhra Pradesh, Paradip in Odisha and Cuddalore in Tamil Nadu.

œ 100% FDI is allowed under the automatic route in the chemicals sector (except in the case of certain hazardous chemicals).

⊙ ANALYSIS

Importance of India's Chemical Industry:

œ **Economic growth:** The chemical industry's role as the key enabler of economic growth is well-established worldwide. From the ubiquitous cellphone to solar panels producing carbon-free energy, to LED lights providing efficient lighting-all are made possible by chemical industry products.

œ **Improving the standard of life:** In India, the chemical industry occupies a pivotal position in meeting basic needs and improving the quality of life as well.

œ **A contributor to GDP:** The sector overall contributes to about three percent of India's gross domestic product (GDP).

œ **Serving all sectors:** The chemical industry is critical for the economic development of any country, providing key products and enabling technical solutions in virtually all sectors of the economy.

Challenges & Issues:

œ **Lack of proper knowledge:** India does not have an exhaustive inventory on the chemicals being used and their associated risks. The country does not have proper knowledge of the chemicals being used. So, several chemicals banned internationally continue to be used in India.

œ **Major accidents:** India, on an average recorded over four major chemical accidents every month in the past three years (Bhopal Gas Tragedy). The 152 recorded accidents are underestimated as most cases go unregistered.

Bhopal Gas Tragedy:

œ Post-midnight on December 3, 1984, poisonous gas leaked from the factory of Union Carbide in Bhopal, Madhya Pradesh, which killed thousands of people directly.

œ The incident is now known as the Bhopal disaster or Bhopal gas tragedy.

œ About 40 tonnes of methyl isocyanate (MIC) gas and other chemicals leaked from the Union Carbide factory.

œ Methyl isocyanate is extremely toxic and if its concentration in the air touches 21ppm (parts per million), it can cause death within minutes of inhaling the gas. In Bhopal, the level was multiple times higher.

> Even 35 years after the Bhopal gas tragedy, India has not banned Methyl isocyanate.

> The government in August 2018 reluctantly banned Carbaryl Sevin, the insecticide the Union Carbide plant was manufacturing in Bhopal.

> Methyl isocyanate is still legally used in the country to make polyurethane, a form of plastic.

œ India took a hard stance against the sector after the Bhopal gas tragedy. But it went soft after economic liberalisation in 1992 to attract investment.

œ **A source of hazardous waste:** Besides accidents, the chemical industry is also a major source of hazardous waste, which, if not handled properly, can lead to widespread contamination. There are around 56,350 industrial units that produce 7.7 million tonnes of hazardous waste every year, as per the Hazardous Waste Inventory Report 2016-17.

œ **Lack of data:** Lack of data is the other big problem. "Many organisations are involved in collecting data — the database on pesticides, industrial chemicals and chemical wastes is encouraging. However, with respect to consumer chemicals, attention is needed.

œ **Lack of coordination:** There is no coordination between the customs department and environment ministry to prevent illegal activities. Due to this, importers constantly violate the Customs Act, 1962. Cargos are given clearances without being emptied every day. Importers use their own software and provide wrong information to the department.

œ **Poor legal regulation:** India has over 15 Acts and 19 rules that govern different aspects of the chemical industry. Yet none of the acts have been designed exclusively for the industry.

> **The Central Motor Vehicles Rules, 1989,** deals with all aspects of road transportation in general and also specifically addresses transportation of hazardous goods, including chemicals.

> **The Environment (Protection) Act, 1986**, currently serves as the umbrella act when it comes to the chemical industry, suggests the National Chemical Management Profile for India report, released in 2005-06 by the Ministry of Environment, Forest and Climate Change (MoEFCC) and the Central Pollution Control Board (CPCB).

> The national chemical policy has been pending since 2012.

œ **Confusing monitoring:** There is no rationale behind having so many Union ministries looking after one sector. It leads to over interference and little work.

How the sector is monitored?

. Currently, nine Union ministries have a stake in the sector:

. **Ministry of Environment, Forest and Climate Change** is the nodal ministry to enforce the Environment (Protection) Act, 1986.

. **The Ministry of Commerce and Industry**, along with the **Ministry of Finance**, take care of import and export of chemicals.

. **The Ministry of Health and Family Planning**, along with the **Ministry of Agriculture and Farmers'** Welfare, are concerned with laws that handle consumer interest.

. **The Ministry of Road Transport and Highways**, along with the **Ministry of Shipping**, ensure implementation of transportation laws.

. **The Ministry of Labour and Employment** is concerned with the safety and occupational health and, the **Ministry of Commerce and Industry** is concerned with the use of explosives.

Chemicals to look for:

œ **Organophosphate pesticides:** They are a class of neurotoxic chemicals used as warfare agents in the 1930s. However, today, they are widely used. They can make their way onto crops that we use as food sources. Areas that spray pesticides heavily, such as farms, may find higher rates of exposure.

œ **Polybrominated diphenyl ethers:** They are used as flame retardants, chemicals that can slow the speed of a flame. They can be found in televisions, computers, insulation and foam products, including children's toys and baby pillows.

œ **Phthalates:** These chemicals soften plastics and help scents and chemicals bind together. Exposure to phthalates has been associated with lower IQ levels. They can be found in shampoos, conditioners, body sprays, hair sprays, perfumes, colognes, soap, nail polish, shower curtains, medical tubing, IV bags, vinyl flooring and wall coverings, food packaging and coatings on time-release pharmaceuticals.

œ **Polychlorinated biphenyls:** Polychlorinated biphenyls are associated with cancer in occupational settings and has been associated with issues with motor skills and short term memory in children.

œ **Nonylphenol (NP):** NP is a persistent, toxic, bio-accumulative chemical which acts as a hormone disruptor and can be responsible for a number of human health effects. It is found in detergents.

œ **Lead:** Lead is a naturally occurring metal. It is used in a variety of products like industrial paints, car batteries and wheel weights. It can also make its way into water, because of corrosion from old

water pipes. Lead exposure has been associated with ADHD, lower IQs and developmental delay.

Suggestive measures:

œ Currently, the weakest factors are inspection, vigilance and public awareness. To correct this, we need standardised procedures and personnel for inspection and vigilance.

œ The European Union has effective regulations like the Registration, Evaluation, Authorisation and Restriction of Chemicals and India needs similar regulation.

œ In order to grow in a sustainable way, the industry need to address matters and activities related to water, environmental impact, raw materials, and energy use in the Indian chemical industry.

œ The Indian chemical industry needs to upgrade its technology to meet world standards and show improved performance in global trade.

œ India urgently needs a National Chemicals Policy, which has been pending since 2008 with few signs of progression.

READING THE NEW STATE OF FOREST REPORT 2019

CONTEXT

. **State of Forest Report 2019 has shown a 1,275 sq km gain in very dense forest, but what this statistic masks is the fact that the country continues to lose its best natural forests. A look at what was gained and lost**

⊙ BACKGROUND

œ The report is published by the Forest Survey of India (FSI) which has been mandated to assess the forest and tree resources of the country including wall-to-wall forest cover mapping in a biennial cycle.

œ Starting 1987, 16 assessments have been completed so far. ISFR 2019 is the 16th report in the series.

œ India is among few countries in the world where forest cover is consistently increasing.

œ The total forest and tree cover of the country is million hectare which is 24.56 percent of the geographical area of the country.

œ Compared to the assessment of 2017, there is an increase of 5,188 sq. km in the total forest and tree cover of the country.

œ Out of this, the increase in the forest cover has been observed as 3,976 sq km and that in tree cover is 1,212 sq. km; Range increase in forest cover has been observed in open forest followed by very dense forest and moderately dense forest and the top three states showing increase in forest cover are Karnataka (1,025 sq. km) followed by Andhra Pradesh (990 sq km) and Kerala (823 sq km)."

Some Major Findings of the report

œ Area-wise Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.

œ In terms of forest cover as percentage of total geographical area, the top five States are Mizoram (85.41%), Arunachal Pradesh (79.63%), Meghalaya (76.33%), Manipur (75.46%) and Nagaland (75.31%).

œ The Mangrove ecosystems are unique & rich in biodiversity and they provide numerous ecological services.

œ Mangrove cover has been separately reported in the ISFR 2019 and the total mangrove cover in the country is 4,975 sq km.

œ An increase of 54 sq Km in mangrove cover has been observed as compared to the previous assessment of 2017.

œ Top three states showing mangrove cover increase are Gujarat (37 sq km) followed by Maharashtra (16 sq km) and Odisha (8 sq km).

œ The total growing stock of India's forest and TOF is estimated 5,915.76 million come of which 4,273.47 million come is inside the forests and 1,642.29 million come outside.

œ There is an increase of 93.38 million come of total growing stock, as compared to the previous assessment.

œ Out of this the increase in growing stock, there is an increase of 55.08 million come inside the forests and 38.30 million come outside the forest areas.

œ The extent of bamboo bearing area of the country has been estimated 16.00 million hectare.

œ There is an increase of 0.32 million hectare in bamboo bearing area as compared to the last assessment of ISFR 2017.

œ The total estimated green weight of bamboo culms is 278 million tonnes, slowly an increase of 88 million tonnes as compared to ISFR 2017.

œ Under the current assessment the total carbon stock in country's forest is estimated 7,124.6 million tonnes and there an increase of 42.6 million tonnes in the carbon stock of country as compared to the last assessment of 2017.

œ The annual increase in the carbon stock is 21.3 million tonnes, which is 78.2 million tonnes CO_2 eq.

œ Wetlands within forest areas form important ecosystems and add richness to the biodiversity in forest areas, both of faunal and floral species. Due to importance of wetlands, FSI has carried out an exercise at the national level to identify wetlands of more than 1 ha within RFA.

œ There are 62,466 wetlands covering 3.8% of the area within the RFA/GW of the country.

Methodology used for the survey

œ In tune with the Government of India's vision of Digital India, FSI's assessment is largely based on digital data whether it is satellite data, vector boundaries of districts or data processing of field measurements.

œ The report provides information on forest cover, tree cover, mangrove cover, growing stock inside and outside the forest areas, carbon stock in India's forests, Forest Types and Biodiversity, Forest Fire monitoring and forest cover in different slopes & altitudes.

œ Special thematic information on forest cover such as hill, tribal districts, and north eastern region has also been given separately in the report.

œ The biennial assessment of forest cover of the country using mid-resolution Satellite data is based on interpretation of LISS-III data from Indian Remote Sensing satellite data Resourcesat-II.

œ This information provides inputs for various global level inventories, reports such as GHG Inventory, Growing Stock, Carbon Stock, Forest Reference Level (FRL) and international reporting to UNFCCC, targets under CCD, Global Forest Resource Assessment (GFRA) done by FAO for planning and scientific management of forests.

œ For the first time, Ortho-rectified satellite data has been used for forest cover mapping due to its better positional accuracy as it removes effects of image perspective (tilt) and relief (terrain) and scale distortions in the image to represent features in its true positions for accurate measurement of distances, angels and areas.

œ FSI, in a first ever attempt has carried out a rapid assessment of biodiversity for all the States and UTs (except two) and for all the sixteen Forest Type Groups as per Champion & Seth Classification (1968).

œ Apart from the number of tree, shrub and herb species as observed in the survey, **Shanon Wienner Index which gives species richness** along with the relative abundance, has also been calculated for each forest type groups in each State & UT.

œ FSI has carried out mapping of forest types of India as per the Champion & Seth Classification (1968), for the first time in the year 2011 based on the base line forest cover data of 2005.

Other Major Highlights

œ A study to assess the dependence of the people living in close proximity to forests for their day to day needs like fuel wood, fodder, small timber and bamboo was undertaken by FSI.

œ The present report also gives information on the fire prone forest areas of different severity classes, mapped in the grids of 5km x 5km based on the frequency of forest fires in the last 14 years that would enable the SFDs to manage and control forest fires effectively in the respective States.

œ Non Timber Forest Produce (NTFP) are important source of livelihood for many tribal communities and villagers living in the proximity of forests.

œ New information has been generated from the national forest inventory data about the top five NTFP species in each State & UT in terms of their availability in forests i.e. relative occurrence.

œ Invasive species pose serious threat to the sustainable management of forests. Analysis of NFI data has been done for determining five major invasive species in each State & UT and also an estimate of area affected by them.

œ The information given in the report would provide valuable information for policy, planning and sustainable management of forest and tree resources in the country.

Objectives of the Nation-Wide Forest Cover Mapping

œ To monitor forest cover and changes therein at the National, State and District levels

œ To generate information on forest cover in different density classes and changes therein

œ To produce forest cover and other thematic maps derived from it for the whole country

œ To provide primary base layer for assessment of different parameters including growing stock, forest carbon etc

œ To provide information for international reporting

Limitations of the Forest Cover Mapping

œ Since the resolution of the LISS III sensor data is 23.5 m, land cover features having a geometric dimension less than 23.5 m on the ground are not discernible.

œ Considerable ground details may sometimes be obscured due to clouds and shadows. Such areas can be discerned to a certain extent with the help of collateral data and image processing techniques, but not always.

œ Non-availability of appropriate season data sometimes puts constraints on the interpretation of the features owing to poor reflectance of data and phenological changes in forests.

œ Occurrence of weeds like lantana in forest areas and agricultural crops like sugarcane, cotton, etc adjacent to forests, causes mixing of spectral signatures and often make precise forest cover delineation difficult.

œ Young plantations and tree species with less chlorophyll or inadequate foliage, many a times are not discernable on satellite images due to inadequate reflectance.

œ Haze and other atmospheric distortions pose difficulty in interpretation, especially in the coastal areas.

Forest Cover of India		
Class	**Area (sq km)**	**Percentage of Geographical Area**
Very Dense Forest	99,278	3.02
Moderately Dense Forest	3,08,472	9.39
Open Forest	3,04,499	9.26
Total Forest Cover	7,12,249	21.67
Scrub	46,297	1.41
Non-Forest	25,28,923	76.92
Total Geographical Area	32,87,469	100.00

STATUE OF UNITY FINDS PLACE IN '8WONDERS OF SCO'

CONTEXT

. **The 182-meter tall Statue of Unity in Gujarat has been included in the Shanghai Cooperation Organisation's '8 Wonders of SCO' list.**

◉ BACKGROUND

œ The Statue of Unity depicts Sardar Vallabhbhai Patel (1875–1950), a leading figure in the nonviolent Indian Independence Movement.

œ The Statue of Unity is the world's tallest statue, with a height of 182 metres (597 feet) which is almost double the height of the Statue of Liberty, USA.

œ The height of the toe of the Statue of Unity measures 3.6 metre. It replaced the Spring temple of Buddha in China to become the tallest statue in the world.

œ It was inaugurated in October 2018 on the occasion of Sardar Vallabhbhai Patel's 143rd birth anniversary

◉ ANALYSIS

Contribution of Sardar Vallahbhbhai Patel in India's history:

œ Sardar Vallahbhbhai Patel, born in Nadiad, Gujarat, on October 31, 1875, was India's first Home Minister and also the first Deputy Prime Minister.

œ Today, his birth anniversary is observed as **National Unity Day** or **Rashtriya Ekta Diwas**.

œ Known as the 'Ironman' of India, Sardar Vallabhbhai Patel was instrumental in India's independence struggle, and then for the integration of 562 princely states into the Union of India.

œ **Removing sexual disqualification:** Sardar happened to be the first to pitch for removing "sexual disqualification" in the District Municipal Act. The Act barred women from contesting elections as per Section 15(1)(C). Sardar had argued that keeping women out of the elected body was equivalent to eliminating the representation of half of the urban population. In 1926, Section 15(1)(c) was abolished.

œ **Kheda Satyagraha:** He lent his active co-operation to Gandhiji for the first time in the Kheda Satyagraha of 1918.

œ **Agitation against Rowlatt Act:** The historic agitation against Rowlatt Act initiated by Mahatma Gandhi in 1919 brought Sardar Vallabhbhai Patel into prominence as a popular leader in Western India. He led the agitation in Gujarat.

œ Sardar Patel participated in the 1930 Salt Satyagraha and for this he was sentenced to three months imprisonment.

œ In 1931, Sardar Patel headed the Karachi session of the Indian National Congress (INC).

œ During Quit India Movement (1942), he got arrested and imprisoned from 1942 to 1945 at the fort in Ahmednagar.

œ In 1937 elections, he led the Congress Party and was a major contender for the post of Congress President for 1937 but due to Gandhi's pressure, Patel withdrawn nomination and Jawaharlal Nehru was elected congress President.

About Shanghai Cooperation Organisation (SCO):

œ The Shanghai Cooperation Organisation (SCO) is a permanent intergovernmental international organisation, the creation of which was announced on 15 June 2001 in Shanghai (China) by the Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan. It was preceded by the Shanghai Five mechanism.

œ The SCO Charter was signed during the St.Petersburg SCO Heads of State meeting in 2002, and entered into force on 19 September 2003.

œ This is the fundamental statutory document which outlines the organisation's goals and principles, as well as its structure and core activities.

œ The aim of SCO is to establish cooperation between member nations on:

> Security-related concerns

> Resolving border issues

> Military cooperation

> Intelligence sharing

> Countering terrorism

> Countering American influence in Central Asia

œ The historical meeting of the Heads of State Council of the Shanghai Cooperation Organisation was held on 8-9 June 2017 in Astana.

œ On the meeting the status of a full member of the Organization was granted to the Republic of India and the Islamic Republic of Pakistan.

œ Thus, currently:

> **Member states:** the SCO comprises eight member states, namely the Republic of India, the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan;

> **Observer States:** the SCO counts four observer states, namely the Islamic Republic of Afghanistan, the Republic of Belarus, the Islamic Republic of Iran and the Republic of Mongolia;

> **Dialogue partners:** the SCO has six dialogue partners, namely the Republic of Azerbaijan, the Republic of Armenia, the Kingdom of Cambodia, the Federal Democratic Republic of Nepal, the Republic of Turkey, and the Democratic Socialist Republic of Sri Lanka.

œ The SCO included the Statue of Unity among the list of eight wonders among the member nations to promote tourism among member states.

œ The Eight Wonders of the SCO are:

.	The Palace of Nowruz	Tajikistan
.	The Poi Kalon complex	Uzbekistan

India & SCO:

œ **A platform to connect with Central Asia:** SCO is a potential platform to advance India's Connect Central Asia policy. 2020 will mark the first time India hosts the annual Shanghai Cooperation Organization (SCO) summit.

œ **Economics & geopolitics benefits:** The SCO's significance for India lies in economics and geopolitics. Having begun as the Shanghai Five in 1996 and rechristened as the SCO in 2001, the member states occupy the huge landmass adjacent to India's extended neighbourhood where India has both economic and security imperatives.

œ **Economic cooperation:** The moot point for India's strategy at the SCO, is to enhance economic cooperation with the Eurasian states and benefit from the security framework.

œ **Leverage to win big:** The summit represents a structured forum where India can leverage its interests that would help it both on the domestic and the international front.

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HOW MALAPPURAM TOPPED THE LIST OF WORLD'S 'FASTEST GROWING CITIES

CONTEXT

. **The Economist put Malappuram at the top of the "Top ten fastest-growing cities" in the world, based on "Total % change, 2015-20 forecast". The list is based on data from the United Nations Population Division.**

◉ BACKGROUND

œ The list based on data from the United Nations Population Division, appears unusual because the total fertility rate in Kerala is 1.8 as per NITI Aayog data from 2016 which is below the replacement rate of 2.1.

œ Another Kerala city, Thrissur, is No. 13, and the capital Thiruvananthapuram is No. 33 on the UN list.

œ Tiruppur in Tamil Nadu which has an even lower TFR of 1.6 is No. 30. Surat in Gujarat (TFR of 2.2) is No. 27.

œ There is no representation on the list from high population growth states like Bihar and UP.

Does "fastest growing" refer to population? How is a "city" defined?

œ The UN list refers to "urban agglomerations" (UA), which are extended areas built around an existing town along with its outgrowths — typically villages or other residential areas or universities, ports, etc., on the outskirts of the town.

œ The Census defines a UA as "a continuous urban spread consisting of a town and its adjoining urban outgrowths or two or more physically contiguous towns together".

PACE OF URBANISATION MOST TRAPID IN KERALA

FASTEST GROWING URBAN AGGLOMERATIONS, 2015-20	FASTEST GROWING INDIAN URBAN AGGLOMERATIONS, 2015-20 (Rate of growth in per cent)		
1. Malappuram, India	Malappuram	:	44.05
2. Suqian, China	Kozhikode	:	34.51
3. Can Tho, Vietnam	Kollam	:	30.99
4. Kozhikode, India	Thrissur	:	30.22
5. Abuja, Nigeria	Surat	:	26.69
6. Suzhou, China	Tiruppur	:	26.21
7. Sharjan, UAE	Thiruvananthapuram	:	22.57
8. Putian, China	Raipur	:	22.21
9. Muscat, Oman	Kochi	:	21.87
10. Dar-es-Salam, Tanzania	Bangalore	:	21.55
11. Kollarn, India	Indore	:	19.01
12. Wuhu, China	Kota	:	18.76
13. Thrissur, India	Vijayawada	:	18.61
14. Yaounde, Cameroon	Rajkot	:	17.21
15. Batam, Indonesia	Moradabad	:	17.11

œ The Economist has listed the rate at which the populations of the UAs are expected to increase between 2015 and 2020.

œ The rate of growth between 2015 and 2020 thus calculated provides a measure of the pace of urbanisation.

How does urban population grow?

œ Urban populations can grow when the birth rate exceeds the death rate (natural growth).

œ When workers migrate to the city in search of jobs.

œ When more areas get included within the boundaries of the city

œ When existing rural areas are reclassified as urban.

œ The low fertility rate in Kerala means the increase in the population of Malappuram and other cities is not because women are having more children; rather it is because more villages are being transformed into towns, and city borders are expanding.

œ According to the Census definition, an urban area is either a census town (CT) or a statutory town (ST).

œ An ST is any place with a municipal corporation, municipal council, or cantonment board.

œ A CT can be a village with "urban characteristics" — a population more than 5,000, population density more than 400 people per sq km and with more than 75% of the population not engaged in agriculture for their livelihood.

œ When a village becomes a CT, its population is included in the urban population of the district.

Could migration have caused the increase?

œ Migration can either increase or decrease the population of a town.

œ Kerala sees both emigration — migration from the state to other places — and immigration — the migration of workers to the state

œ The remittances that emigrants send allow the residents of villages to move away from agriculture, which changes the status of a village to census town.

Top ten fastest-growing cities

Total % change, 2015-20 forecast

Malappuram, India **44.1**

Can Tho, Vietnam **36.7**

Suqian, China **36.6**

Kozhikode, India **34.5**

Abuja, Nigeria **34.2**

Suzhou, China **32.5**

Putian, China **32.2**

Sharjah, UAE **32.2**

Muscat, Oman **31.4**

Kollam, India **31.1**

Why are Malappuram (44%), Kozhikode (34.5%), and Kollam (31%) growing so fast?

œ These cities are seeing rapid urbanisation, and the main reason is the inclusion of new areas in the UA's limits.

œ In 2001, there were two municipal corporations within the UA of Malappuram. In 2011, the number of municipal corporations had doubled to four, and an additional 37 CTs were included within Malappuram.

œ The population of the UA (excluding the residents of the outgrowths) increased almost 10 times in the same period because of the inclusion of existing urban areas in the town.

œ Similarly, Kollam UA grew from one municipal corporation in 2001 to 23 CTs, one municipal corporation, and one municipal council in 2011.

œ Its population increased by 130%, even though the population of the original ST of Kollam actually decreased by 4%.

Why is this not seen elsewhere in India?

œ In Kerala, urbanisation is driven by a move away from agriculture, which leads to a change in a village's Census classification status.

œ This is evident from the large number of CTs that were included in the UAs of the state since the last Census.

œ On the other hand, except Delhi, the more populous cities in the North had fewer CTs in 2011.

œ While the pace of urbanisation has been slower in the North, some unnaturally high increases in the population can be expected after the 2021 Census because in some cases, villages on the peripheries were brought within the administrative boundaries of the cities.

But is this kind of increased urbanisation good for the economy? /Way forward

œ It has both positive and negative sides. Urbanisation leads to the growth of cities, which are sites of infrastructure like universities, hospitals, and public transport facilities.

œ There are more opportunities for the youth, which is why they attract young people and entrepreneurs.

œ In India, people moving to cities leave behind (to some extent) caste and class divisions that dominate life in the villages, and can hope to climb up the social ladder.

œ However, unplanned urbanisation can be "exclusionary", making it difficult for migrants to live there given the high cost.

œ "Unregulated housing, lack of reliable public transport, and longer commutes within these towns puts a strain on the meagre resources of migrants.

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CENTRE-STATE DISPUTES AND ARTICLE 131

CONTEXT

. Kerala has recently become the first state to challenge the Citizenship (Amendment) Act (CAA) before the Supreme Court.

. However, the Kerala government has moved the apex court under Article 131 of the Constitution.

. Besides, the Chhattisgarh government has also filed a suit in the Supreme Court under Article 131, challenging the National Investigation Agency (NIA) Act on the ground that it encroaches upon the state's powers to maintain law and order

⊚ ABOUT

œ Under Article 131 of the Constitution, the provision under which the Supreme Court has original jurisdiction to deal with any dispute-

> between the Government of India and one or more States; or

> between the Government of India and any State or States on one side and one or more other States on the other; or

> between two or more States, if and in so far as the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends.

What is Article 131?

œ The Supreme Court has three kinds of jurisdictions: original, appellate and advisory.

œ Under its advisory jurisdiction, the President has the power to seek an opinion from the apex court under Article 143 of the Constitution.

œ Under its appellate jurisdiction, the Supreme Court hears appeals from lower courts.

œ In its extraordinary original jurisdiction, the Supreme Court has exclusive power to adjudicate upon disputes involving elections of the President and the Vice President, those that involve states and the Centre, and cases involving the violation of fundamental rights.

Criteria:

œ For a dispute to qualify as a dispute under Article 131, it has to necessarily be between states and the Centre, and must involve a question of law or fact on which the existence of a legal right of the state or the Centre depends.

œ In a 1978 judgment, State of Karnataka v Union of India, Justice P N Bhagwati had said that for the Supreme Court to accept a suit under Article 131, the state need not show that its legal right is violated, but only that the dispute involves a legal question.

œ Article 131 cannot be used to settle political differences between state and central governments headed by different parties.

How is this move different?

œ The other petitions challenging the CAA have been filed under Article 32 of the Constitution, which gives the court the power to issue writs when fundamental rights are violated.

œ A state government cannot move the court under this provision because only people and citizens can claim fundamental rights.

œ Under Article 131, the challenge is made when the rights and power of a state or the Centre are in question.

œ However, the relief that the state (under Article 131) and petitioners under Article 32 have sought in the challenge to the CAA is the same — declaration of the law as being unconstitutional.

Can the Supreme Court declare legislation unconstitutional under Article 131?

œ A 2012 dispute between Bihar and Jharkhand that is currently pending for consideration by a larger Bench deals with the issue of liability of Bihar to pay pension to employees of Jharkhand for the period of their employment in the former, undivided Bihar state.

œ Although earlier judgments had held that the constitutionality of a law can be examined under Article 131, a 2011 judgment in the case of State of Madhya Pradesh v. Union of India ruled otherwise.

œ Since the 2011 case was also by a two-judge Bench and was later in time, the court could not overrule the case. However, the judges did not agree with the ruling.

Can the Centre too sue a state under Article 131?

œ The Centre has other powers to ensure that its laws are implemented. The Centre can issue directions to a state to implement the laws made

by Parliament

œ If states do not comply with the directions, the Centre can move the court seeking a permanent injunction against the states to force them to comply with the law.

œ Non-compliance of court orders can result in contempt of court, and the court usually hauls up the chief secretaries of the states responsible for implementing laws.

Is it unusual for states to challenge laws made by Parliament?

œ Under the Constitution, laws made by Parliament are presumed to be constitutional until a court holds otherwise.

œ However, in India's quasi-federal constitutional structure, inter-governmental disputes are not uncommon.

œ Original jurisdiction of the Supreme Court has been added in the constitution for their resolution. The quasi-federal structure envisaged in 1950 has consolidated into defined powers of the states.

œ Under a powerful Centre with a clear majority in Parliament, fault lines in India's federal structure are frequently exposed.

œ Since 2014, when the government came to power, debates around the 15th Finance Commission, the Goods and Services Tax, the linguistic divide on the National Education Policy, land acquisition, and the proposed All India Judicial Services have all emerged as flashpoints between the strong Centre and states ruled by the Opposition.

The disputes which Parliament, by law, is authorized to exclude the jurisdiction of the Supreme Court are:

œ Disputes relating to water (article 262).

œ Matters referred to the Finance Commission.

œ Adjustment of certain expenses between the Union and the states under Article 290.

œ Disputes specified in the provision to Articles 131 and 363(1).

œ Adjustment of expenses between the Union and the states under Articles 257 (4) and 258(3).

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SECTION: B
(PRELIMS)
CURRENT AFFAIRS

'THE SIGNIFICANCE OF THE KOLKATA PORT'

◉ **CONTEXT**

• **In a recent development, Prime Minister Narendra Modi renamed the Kolkata Port Trust after Bharatiya Jana Sangh (BJS) founder Dr Syama Prasad Mookerjee, at an event to mark its 150th anniversary.**

About Kolkata Port:

. Kolkata Port is the only riverine Major Port in India, situated 232 kilometers up-stream from the Sandheads, having arguably the longest navigational channel amongst Major Ports of India and its navigational channel is one of the longest in the world.

. KoPT is India's oldest operational port and the first among the 12 major ports (government-owned) of India. Kolkata Port System includes three ports:

  œ Kolkata

  œ Haldia

  œ Sagar Island

. The port facility has aided in industrialization, employment generation and major economic activity in the region while serving a vast hinterland as well as landlocked neighbouring countries such as Bhutan and Nepal.

. The river Hooghly, on which it is located, has many sharp bends, and is considered a difficult navigational channel.

. Throughout the year, dredging activities have to be carried out to keep the channel open.

. The **Farakka Barrage**, built in 1975, reduced some of the port's woes as Ganga waters were diverted into the **Bhagirathi-Hooghly system**.

Historical background:

. In the early 16th century, the Portuguese first used the present location of the port to anchor their ships, since they found the upper reaches of the Hooghly river, beyond Kolkata, unsafe for navigation.

. **Job Charnock**, an employee and administrator of the **East India Company**, is believed to have founded a trading post at the site in 1690. Since the area was situated on the river with jungle on three sides, it was considered safe from enemy invasion.

. After the abolition of slavery in the British Empire in 1833, this port was used to ship lakhs of Indians as 'indentured labourers' to far-flung territories throughout the Empire.

. As Kolkata grew in size and importance, merchants in the city demanded the setting up of a port trust in 1863.

. The colonial government formed a **River Trust in 1866**, but it soon failed, and administration was again taken up by the government.

. Finally, in 1870, the **Calcutta Port Act (Act V of 1870)** was passed, creating the offices of Calcutta Port Commissioners.

. In 1869 and 1870, eight jetties were built on the Strand. A wet dock was set up at Khidirpur in 1892. The Khidirpur Dock II was completed in 1902.

. As cargo traffic at the port grew, so did the requirement of more kerosene, leading to the building of a petroleum wharf at Budge Budge in 1896.

. In 1925, the Garden Reach jetty was added to accommodate greater cargo traffic. A new dock, named King George's Dock, was commissioned in 1928 (it was renamed Netaji Subhash Dock in 1973).

. During World War II, the port was bombed by Japanese forces.

. After Independence, the Kolkata Port lost its preeminent position in cargo traffic to ports at Mumbai, Kandla, Chennai, and Visakhapatnam.

. In 1975, the Commissioners of the port ceased to control it after the Major Port Trusts Act, 1963, came into force.

Who was Dr. Shyama Prasad Mookerjee?

. Dr. Shyama Prasad Mookerjee was born in Calcutta on 6th July, 1901. He was the youngest (33) ever Vice-Chancellor of Calcutta University and Independent India's first Minister of Industry and Supply.

. After India's independence, Prime Minister Jawaharlal Nehru made Dr. Shyama Prasad Mookerjee Ministry for Industry and Supply in the interim Central Government.

. However he resigned from the Cabinet in 1950 as he was against the 'Nehru-Liaquat Ali Pact'.

. After he formed Bhartiya Jana Sangh on 21st October, 1951 and became its first President

> The Bhartiya Jana Sangh (BJS) or Akhil Bharatiya Jana Sangh was an Indian right wing political party that existed from 1951 to 1977. The BJS was ideologically close to the Rashtriya Swayamsevak Sangh, and derived most of its political activist base and candidates from the RSS ranks. It was succeeded by the Bharatiya Janata Party.

A GIANT FISH IS DECLARED EXTINCT

◉ **CONTEXT**

• **One of the largest freshwater fish has been declared extinct in a study published in the journal Science of the Total Environment.**

◉ **ABOUT**

• The Chinese paddlefish (Psephurus gladius) was an iconic species, measuring up to 7 m in length, dating back from 200 million years ago, and therefore swimming the rivers when dinosaurs ruled the Earth.

. Its ancestral home was the Yangtze River.

. Chinese researchers made this conclusion based on the Red List criteria of the International Union for Conservation of Nature (IUCN).

The Red List has several categories for extinction

. **"Extinct in the wild"** means a species survives only in a captive environment

. **"Locally extinct"** means a species has ceased to exist in a particular area but may exist in other areas.

. **"Functionally extinct"**, which means the species continues to exist but it has too few members to enable to reproduce meaningfully enough to ensure survival.

. **"Globally extinct",** it means a species has no surviving member anywhere. Such a conclusion is reached when there is no reasonable doubt left that its last member has died.

Other facts

. Declaring a species extinct is an elaborate process. It involves a series of exhaustive surveys, which need to be taken at appropriate times, throughout the species' historic range and over a time-frame that is appropriate to the species' life cycle and form.

. Once declared extinct, a species is not eligible for protective measures and conservation funding; therefore, the declaration has significant consequences.

. In the case of the Chinese paddlefish, the researchers made the conclusion over long-term surveys. It was once common in the Yangtze, before overfishing and habitat

fragmentation — including dam building — caused its population to dwindle from the 1970s onwards.

. Between 1981 and 2003, there were just around 210 sightings of the fish.

. The researchers estimate that it became functionally extinct by 1993, and extinct sometime between 2005-2010

GREEN CREDIT SCHEME

◉ **CONTEXT**

• **The Forest Advisory Committee has approved the 'Green Credit Scheme' that could allow "forests" to be traded as a commodity. If implemented, it allows the Forest Department to outsource one of its responsibilities of reforesting to non-government agencies.**

What is the 'Green Credit Scheme'?

. The proposed 'Green Credit Scheme', as it is called, allows agencies, they could be private companies, village forest communities, to identify land and begin growing plantations.

. After three years, they would be eligible to be considered as compensatory forest land if they met the Forest Department's criteria.

. An industry needing forest land could then approach the agency and pay it for parcels of such forested land, and this would then be transferred to the Forest Department and be recorded as forest land.

. The participating agency will be free to trade its asset, that is a plantation, in parcels, with project proponents who need forest land.

. Once finalised, the scheme will overhaul the compensatory afforestation process by accrediting private or public-private partnership companies to raise plantations near reserved forests which can be bought in lieu of projects involving forest diversion.

. If the company raising the plantation doesn't wish to trade it, it can retain it and harvest the timber once ready.

Understanding the current system:

. Under the Forest Conservation Act 1980, each time forest land is diverted for non-forest purposes like mining or industry, the project developer is supposed to identify land and pay for planting forests over an equal area of non-forest land, or when that is not available, twice the area of degraded forest land.

. It also must pay the State Forest Department the current economic equivalent, called **Net Present Value**, of the forest land.

. This money currently gets collected under the **Compensatory Afforestation Fund**.

. It's then the Forest Department's responsibility to grow appropriate vegetation that, over time, would grow into forests.

. Industries have often complained that they find it hard to acquire appropriate non-forest land, which has to be contiguous to an existing forest.

. Nearly 50,000 crores had been collected by the Centre over decades, but the funds were lying unspent because States were not spending the money on regrowing forests.

. The Supreme Court intervened, a new law came about with rules for how this fund was to be administered.

. About 47,000 crores had been disbursed to States until August, but it has barely led to any rejuvenation of forests.

Concerns:

The proposed scheme has raised some concerns among green activists, as given below:

- **The threat to agricultural land:** The money involved will be discussed between the private agencies raising these plantations and the project proponent. If the economic value of these plantations becomes lucrative, it can pose a serious threat to agricultural land, by diverting the latter for plantations.
- **Uncontrolled circulation of money:** In the scheme, the Compensatory afforestation (CA) money can be exchanged between the private agency and the project proponent. It can lead to a situation where money keeps circulating within a private company.
- **Issues of ambiguity:** The scheme does not provide details about the ownership over the land and where the land will be sourced from.
- **Destruction:** Concerns are also being raised that this would lead to the privatisation of forests and give impetus to their destruction.

Significance of the Scheme:

- **Proper monitoring:** There would be monitoring of plantations, which wasn't done earlier and make it easy for individuals to plant and harvest trees, which earlier was difficult due to the provisions of the Forest (Conservation) Act, 1980.
- **Encouraging plantation:** The scheme will encourage plantation by individuals outside the traditional forest area.
- **Meeting environmental goals:** Furthermore, it will help in meeting international commitments such as sustainable development goals and nationally determined contributions.

DIEGO- THE GIANT TORTOISE

◉ **CONTEXT**
- **Recently, Diego (Chelonoidis hoodensis, or the giant tortoise species) has retired from the captive breeding programme in the Galapagos National Park, Ecuador. He will be returned to Española Island, from where he was taken around 80 years ago.**

◉ **ABOUT**
- Diego is 100 years old and joined the breeding programme in 1976.
- The tortoise population has since gone up from 15 to 2,000.
- He is responsible for about 40% of the offspring produced.
- Another male tortoise 'E5' has generated about 60% offspring.
- Diego has a long leathery neck, dull-yellow face and beady eyes. Fully stretched out, he extends to about five feet and weighs about 176 pounds.
- The long neck is critical for his species' survival, helping the tortoises crane their necks to feed on cacti.
- IUCN Red List Status: Critically Endangered

Threats:

- Tortoises on the Galápagos Islands served as an excellent source of food for seafarers in the 1800s so a large number were picked up from the islands.

> **Galápagos National Park**
>
> - It was created in 1959 and it was the first national park of Ecuador.
> - The Galápagos Islands were designated as a UNESCO World Heritage Site in 1978.

. Feral goats on the islands posed another danger, competing for food, destroying the tortoises' habitat.

'HIGHEST NUMBER OF WETLAND SPECIES IN KAZIRANGA'

◉ **CONTEXT**
• **Kaziranga recorded 96 species of wetland birds — one of the highest for wildlife reserves in India, according to the second wetland bird count conducted recently.**

Key-highlights of the Survey:

. The survey registered a total of 19,225 birds belonging to 96 species under 80 families. It covered four ranges of the park:

œ Agoratoli

œ Bagori

œ Kohora

œ Burapahar

. More than half the birds (9,924) and 85 of the 96 species were recorded in **Agoratoli Range.** This was because **Sohola,** the largest of Kaziranga's 92 perennial wetlands, is in this range.

. With 6,181 individuals, the **bar-headed goose** led the species count, followed by the common **teal** at 1,557 and **northern pintail** at 1,359. All three belong to the family **Anatidae.**

. The other species with sizeable numbers include **gadwall, common coot, lesser whistling duck, Indian spot-billed duck, little cormorant, ferruginous duck, tufted duck, Eurasian wigeon, Asian openbill, northern lapwing, ruddy shelduck** and **spot-billed pelican.**

◉ **BACKGROUND**
• The first wetland bird survey in Kaziranga, a UNESCO World Heritage Site since 1985, was conducted in 2018.

. The first waterfowl census in 2018 had yielded 10,412 birds covering 80 species, belonging to 21 families.

What are the Wetlands?

. Wetlands are areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season.

. The primary factor that distinguishes wetlands from other landforms or water bodies is the characteristic vegetation of aquatic plants, adapted to the unique hydric soil.

. Wetlands play a number of ecological functions, such as water purification, water storage, processing of carbon and other nutrients, stabilization of shorelines, and support of plants and animals.

Ramsar Convention on Wetlands:

. The Convention on Wetlands, called the Ramsar Convention, is the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.

. It is the only global treaty that focuses specifically on wetlands.

. The Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.

. At present, there are 27 Ramsar Wetlands Sites in India:

S.No.	Name of Sites	State	S.No.	Name of Sites	State
1.	Asthamudi Wetland	Kerala	2.	Bhoj Wetlands	Madhya Pradesh
3.	Bhitarkanika Mangroves	Orissa	4.	Chandertal Wetland	Himachal Pradesh
5.	Chilka Lake	Orissa	6.	Deepor Beel	Assam
7.	East Calcutta Wetlands	West Bengal	8.	Hokera Wetland	Jammu and Kashmir
9.	Harike Lake	Punjab	10.	Kanjli Lake	Punjab
11.	Keoladeo Ghana NP	Rajasthan	12.	Kolleru Lake	Andhra Pradesh
13.	Loktak Lake	Manipur	14.	Nalsarovar Bird Sanctuary	Gujarat
15.	Point Calimere	Tamil Nadu	16.	Pong Dam Lake	Himachal Pradesh
17.	Renuka Wetland	Himachal Pradesh	18.	Ropar Lake	Punjab
19	Rudrasagar Lake	Tripura	20.	Sambhar Lake	Rajasthan
21.	Sasthamkotta Lake	Kerala	22.	Surinsar-Mansar Lakes	Jammu and Kashmir
23.	Tsomoriri Lake	Jammu and Kashmir	24.	Vembanad Kol Wetland	Kerala
25.	Wular Lake	Jammu & Kashmir	26.	Sunderbans Wetland	West Bengal
27.	Upper Ganga River (Brijghat to Narora Stretch)	Uttar Pradesh			

Quick facts on Kaziranga National Park:

. **Important species:** Kaziranga National Park a world heritage site is famous for the Great Indian one-horned rhinoceros. Besides rhinoceros, it is inhabited by tigers, elephants, panthers and bears, and thousands of birds.

. **Location:** It is located fairly in the Golaghat and Nagaon regions of Assam in India and also placed beside the Brahmaputra River on the North and the Karbi Anglong mounts on South India. Kaziranga National Park is the abode of 37 highways which is passed through the park.

. It has been declared as National Park in 1974. It has been **declared as a world heritage site by UNESCO**.

. **Legal protection:** The property receives the highest legal protection and strong legislative framework under the provisions of the Indian Wildlife (Protection) Act, 1972 and Indian Forest Act, 1927/Assam Forest Regulation 1891.

HOW SWAMI VIVEKANANDA BECAME THE 'MESSENGER OF INDIAN WISDOM' TO WEST

◉ **CONTEXT**
   • **January 12 is the birth anniversary of Swami Vivekananda, the famous Hindu spiritual leader and intellectual from the late 19th century.**

◉ **ABOUT**
   • An important religious reformer in India, Swami Vivekananda is known to have introduced the Hindu philosophies of Yoga and Vedanta to the West.

. Netaji Subhas Chandra Bose had called Vivekananda the "maker of modern India."

. In his honour, the government of India in 1984 declared his birthday as National Youth Day.

. The aim of the celebrations is to spread the message of strength, fearlessness, sacrifice, character-building and excellence among youth.

. Swami Vivekananda propounded the importance of Education in building a nation. He believed that education was the primary means to empowering people. He specially emphasized on education being relevant to the common masses.

. Ramakrishna Mission is an organization established by Swami Vivekananda which works in the area of value based education, culture, health, women's empowerment, youth and tribal welfare and relief and rehabilitation.

Swami Vivekananda early life

. Vivekananda was born in Kolkata on January 12, 1863, as Narendra Nath Datta.

. From an early age, he nurtured an interest in Western philosophy, history, and theology, and went on to meet the religious leader Ramakrishna Paramhansa, who later became his Guru. He remained devoted to Ramakrishna until the latter's death in 1886.

. In 1893, he took the name 'Vivekananda' after Maharaja Ajit Singh of the Khetri State requested him to do so, changing from 'Sachidananda' that he used before.

. After Ramakrishna's death, Vivekananda toured across India, and set after educating the masses about ways to improve their economic condition as well as imparting spiritual knowledge.

The Chicago address

. Vivekananda is especially remembered around the world for his speech at the Parliament of the World's Religions in Chicago in 1893.

. The speech covered topics including universal acceptance, tolerance and religion.

. He began delivering lectures at various places in the US and UK, and became popular as the 'messenger of Indian wisdom to the Western world'.

Vivekananda's legacy

. Through his speeches and lectures, Vivekananda worked to disseminate his religious thought. He preached 'neo-Vedanta', an interpretation of Hinduism through a Western lens, and believed in combining spirituality with material progress.

. 'Raja Yoga', 'Jnana Yoga', 'Karma Yoga' are some of the books he wrote.

. Before his death in 1902, Vivekananda wrote to a Western follower: "It may be that I shall find it good to get outside my body, to cast it off like a worn out garment. But I shall not cease to work. I shall inspire men everywhere until the whole world shall know that it is one with God."

10 Inspirational Quotes by the Legendary and World Renowned Monk Swami Vivekananda

. All the powers in the universe are already ours. It is we who have put our hands before our eyes and cry that it is dark.

. We are what our thoughts have made us; so take care about what you think. Words are secondary. Thoughts live; they travel far.

. Take up one idea. Make that one idea your life -think of it, dream of it, live on that idea. Let the brain, muscles, nerves, every part of your body, be full of that idea and just leave every other idea alone. This is the way to success.

. All differences in this world are of degree, and not of kind, because oneness is the secret of everything.

. If money help a man to do good to others, it is of some value; but if not, it is simply a mass of evil, and the sooner it is got rid of, the better.

. You have to grow from the inside out. None can teach you, none can make you spiritual. There is no other teacher but your own soul.

. The moment I have realized God sitting in the temple of every human body, the moment I stand in reverence before every human being and see God in him - that moment I am free from bondage, everything that binds vanishes, and I am free.

. Truth can be stated in a thousand different ways, yet each one can be true.

. As different streams having different sources all mingle their waters in the sea, so different tendencies, various though they appear, crooked or straight, all lead to God.

. When an idea exclusively occupies the mind, it is transformed into an actual physical or mental state.

JUS COGENS

◉ **CONTEXT**

• **Recently, the term JUS COGENS was used by Iranian foreign minister in response to the President Trump's threat to attack Iran's cultural sites.**

◉ **ABOUT**

• Legally, JUS COGENS means a principle of international law that is based on values taken to be fundamental to the international community and that cannot be set aside.

. The US has threatened to target few historical sites if Iran retaliates to attack US in revenge AS US forces killed Iranian top commander Solamani in a drone attacck. This is a breach of JUS COGENS as targeting cultural sites amounts to war crime.

. The jus cogens rules have been sanctioned by the Vienna Conventions on the Law of Treaties of 1969 and 1986. According to both Conventions, a treaty is void if it breaches jus cogens rules.

. Jus Cogens or ius cogens, meaning "compelling law" in Latin, are rules in international law that are peremptory or authoritative, and from which states cannot deviate.

. These norms cannot be offset by a separate treaty between parties intending to do so, since they hold fundamental values.

. Today, most states and international organisations accept the principle of jus cogens, which dates back to Roman times.

Vienna Convention and JUS COGENS

. Article 53 of the 1969 Convention says: "A treaty is void if, at the time of its conclusion, it conflicts with a peremptory norm of general international law.

. For the purposes of the present Convention, a peremptory norm of general international law is a norm accepted and recognized by the international community of States as a whole as a norm.

. From this no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character.

. Article 64 says- If a new peremptory norm of general international law emerges, any existing treaty which is in conflict with that norm becomes void and terminates.

. Besides treaties, unilateral declarations also have to abide by these norms.

What is included in JUS COGENS?

. So far, an exhaustive list of jus cogens rules does not exist.

. However, the prohibition of slavery, genocide, racial discrimination, torture, and the right to self-determination are recognised norms.

. The prohibition against apartheid is also recognised as a jus cogens rule, from which no derogation is allowed, since apartheid is against the basic principles of the UN.

What is the problem with targeting cultural heritage?

. Following the unparalleled destruction of cultural heritage in World War II, the nations of the world adopted at The Hague in 1954, The Convention for the Protection of Cultural Property in the Event of Armed Conflict.

. It was the first international treaty focussed exclusively on the protection of cultural heritage during war and armed conflict.

. The Convention defined cultural property as "movable or immovable property of great importance to the cultural heritage of every people, such as monuments of architecture, art or history, whether religious or secular; archaeological sites....", etc.

. There are currently 133 signatories to Convention, including countries that have acceded to and ratified the treaty.

. Both the United States and Iran (as well as India) signed the Convention on May 14, 1954, and it entered into force on August 7, 1956.

. The Rome Statute of 1998, the founding treaty of the International Criminal Court, describes as a "war crime" any intentional attack against a historical monument, or a building dedicated to religion, education, art, or science.

◉ **CONCLUSION**

• Both warring countries must de-escalate and respect the international laws. India must play a role of mediation to find peace between the warring Iran and US.

'NEPAL'S SEKE 'NEAR-EXTINCT''

◉ **CONTEXT**

• **Recently, The New York Times reported that the "near-extinct" Nepalese language Seke has just 700 speakers around the world.**

Nepal's Seke language:

. According to the Endangered Language Alliance (ELA), Seke is one of the over 100 indigenous languages of Nepal and is mainly spoken in the five villages of **Chuksang, Chaile, Gyakar, Tangbe** and **Tetang** in the Upper Mustang district.

. The dialects from these villages differ substantially and are believed to have varying degrees of mutual intelligibility.

. In recent years, Seke has been retreating in the face of Nepali, which is **Nepal's official language** and is considered to be crucial for getting educational and employment opportunities outside villages.

Why language is becoming vulnerable?

. Out of the 700 speakers, 100 are in New York, and roughly half of these 100 stay in one building in the city.

. Most of the Seke-speaking community in New York stays in the Ditmas Park area of Brooklyn, or in Queens.

. According to ELA, difficult conditions at home and job prospects elsewhere have brought speakers of Seke to places such as Pokhara, Kathmandu and even New York.

. Therefore, the vulnerability of the language is linked to the migration of people to places where Seke is not spoken, which has reduced the intergenerational transmission of the language.

. Furthermore, the younger generation does not find much use in learning the language, giving preference to Nepali and English.

Disappearing indigenous language:

. The last year, 2019, was the International Year of Indigenous Languages, mandated by the United Nations (UN).

. In December 2019, the United Nations General Assembly stated that despite efforts throughout the year, one indigenous language disappears every fortnight.

. Of 7,000 indigenous languages spoken today, four in 10 are in danger of disappearing.

Which languages are in danger?

. UNESCO has six degrees of endangerment. These are:

   œ **Safe**, which are the languages spoken by all generations and their intergenerational transmission is uninterrupted

   œ **Vulnerable languages**, which are spoken by most children but may be restricted to certain domains

   œ **Definitely endangered languages**, which are no longer being learnt by children as their mother tongue.

   œ **Severely endangered** are languages spoken by grandparents and older generations, and while the parent generation may understand it, they may not speak it with the children or among themselves.

   œ **Critically endangered languages** are those of which the youngest speakers are the grandparents or older family members who may speak the language partially or infrequently

   œ **Extinct languages**, of which no speakers are left.

. Considering these definitions, Seke may be considered to be a **definitely endangered language**.

. As per UNESCO, roughly 57 percent of the world's estimated 6,000 languages are safe, about 10 percent are vulnerable, 10.7 percent are definitely endangered, about 9 percent are severely endangered, 9.6 percent are critically endangered and about 3.8 per cent of all languages are extinct since 1950.

. As per the Endangered Languages Project (ELP), there are roughly **201 endangered languages in India** and about 70 in Nepal.

HOW IS A LANGUAGE DECLARED 'CLASSICAL' IN INDIA, WHAT BENEFITS IT ENJOYS

◉ **CONTEXT**
• **The Akhil Bharatiya Marathi Sahitya Sammelan recently demanded that Marathi be given the status of a 'classical language'.**

◉ **ABOUT**
• At the recently concluded 93rd edition of the Akhil Bharatiya Marathi Sahitya Sammelan, a resolution was passed demanding the declaration of Marathi as a Classical' language.

. The Sammelan, an annual conference of Marathi writers, was started in 1878, and over the years has been headed by leading Marathi intellectuals, including Justice Mahadev Govind Ranade, Maharaja Sayajirao Gaekwad III of Baroda, and Prahlad Keshav "Acharya" Atre.

. This year's conference was presided over by litterateur, environmentalist, and Catholic priest Francis D'Britto, the first Christian to do so in history.

What are 'Classical' languages in India, and how are they classified?

. Currently, six languages enjoy the 'Classical' status: Tamil (declared in 2004), Sanskrit (2005), Kannada (2008), Telugu (2008), Malayalam (2013), and Odia (2014).

. Guidelines for declaring a language as 'Classical' are

   œ High antiquity of its early texts/recorded history over a period of 1500-2000 years;

œ A body of ancient literature/texts, which is considered a valuable heritage by generations of speakers;

œ The literary tradition be original and not borrowed from another speech community

œ The classical language and literature being distinct from modern, there may also be a discontinuity between the classical language and its later forms or its offshoots.

How are the Classical languages promoted?

. Two major annual international awards for scholars of eminence in classical Indian languages

. A Centre of Excellence for studies in Classical Languages is set up

. The University Grants Commission is requested to create, to start with at least in the Central Universities, a certain number of Professional Chairs for the Classical Languages so declared.

. Ministry of Culture listed the institutions that have been dedicated to Classical languages.

. Sanskrit: Rashtriya Sanskrit Sansthan, New Delhi; Maharishi Sandipani Rashtriya Ved Vidya Pratishthan, Ujjain; Rashtriya Sanskrit Vidyapeetha, Tirupati; and Sri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth, New Delhi

. Telugu and Kannada: Centres of Excellence for Studies in the respective languages at the Central Institute of Indian Languages (CIIL) established by the HRD Ministry.

. Tamil: Central Institute of Classical Tamil (CICT), Chennai.

PRIVATE PROPERTY IS A HUMAN RIGHT: SC

◉ **CONTEXT**

• **In a recent judgement, the Supreme Court held that "a citizen's right to own private property is a human right" and the state cannot take possession of it without following due procedure and authority of law.**

About Human Rights:

. Human rights are based on dignity, equality and mutual respect – regardless of nationality, religion or beliefs.

. Simply put, Human Rights are those minimal rights which every individual must have against the State or other public authority by virtue of his being a 'member of the human family', irrespective of any other consideration.

. These basic human rights are:

œ **Universal:** They belong to all (everybody in the world)

œ **Inalienable:** They cannot be taken away from the people

œ **Indivisible and interdependent:** Governments should not be able to pick and choose which are respected.

œ **Human Rights can be violated:** Although they are inalienable, they are not invulnerable. Violations can stop people from enjoying their rights, but they do not stop the rights from existing.

. **Essential:** They are essential for freedom, justice, and peace.

Universal Declaration of Human Rights (UDHR): UDHR was the first international agreement which outlined the rights and freedoms everyone is entitled to. It is a historic document on the basic principles of human rights that laid the foundation for human rights protections. India is a signatory to the UDHR.

What did the Court say?

. A bench of Justices Indu Malhotra and Ajay Rastogi in its verdict said the state, being a welfare state governed by the rule of law cannot arrogate to itself a status beyond what is provided by the Constitution.

. The bench referred to an earlier verdict to say it has been held that the **right to property** is now considered to be not only a **constitutional or statutory right** but also a **human right**.

. The top court ruled that to forcibly dispossess citizens of their private property, without following the due process of law, would be to violate a human right, as also the constitutional right under **Article 300A** of the Constitution.

. The state being a welfare state cannot be permitted to take the plea of adverse possession, which allows a trespasser i.e. a person guilty of a tort, or even a crime, to gain legal title over such property for over 12 years.

. The state cannot be permitted to perfect its title over the land by invoking the doctrine of adverse possession "to grab the property of its own citizens, as has been done in the present case".

. The state cannot dispossess a citizen of his property except in accordance with the procedure established by law.

Right to Property: Property ceased to be a fundamental right with the **44th Constitution Amendment in 1978.** Nevertheless, Article 300A required the state to follow due procedure and authority of law to deprive a person of his or her private property. Article 300-A of the Constitution of India reads as under:

"Persons not to be deprived of property save by authority of law. No person shall be deprived of his property save by authority of law."

Thus, right to property is a constitutional right as well as human right, though right to property is no longer a fundamental right and constitutional protection continues in as much as without authority of law, a person cannot be deprived of his property.

The case:

. The state government of Himachal Pradesh had acquired the land in 1967-68 for construction of road between Nadaun-Sujanpur Road in Hamir Pur district without following the acquisition proceedings.

. The state government deprived the appellant (an illiterate persona and a widow from a rural area) of her private property without resorting to the procedure prescribed by law.

. The Appellant has been divested of her right to property without being paid any compensation whatsoever for over half a century.

. The SC exercised its extraordinary jurisdiction, under **Articles 136** and **142** of the Constitution, and directed the state to pay the compensation to the woman in eight weeks with all statutory benefits.

GOLDILOCKS ZONE

⊙ **CONTEXT**
- **NASA has reported the discovery of an Earth-size planet, named TOI 700 d, orbiting its star in the "goldilocks zone".**

⊙ **ABOUT**
- It is a **habitable zone around a star where it is not too hot and not too cold for liquid water to exist on the surface of surrounding planets.**

. Our **Earth is in the Sun's Goldilocks zone**, if Earth were the dwarf planet like Pluto is, all its water would freeze and if Earth were where Mercury is, all its water would boil off.

. Life on Earth started in water, and water is a necessary ingredient for life. When scientists search for the possibility of alien life, any rocky exo-planet in the habitable zone of its star is an exciting find.

. The newest such planet was found by NASA's Transiting Exoplanet Survey Satellite (TESS) mission, which it launched in 2018.

. Very few such Earth-size planets have been found so far, including some by NASA's Kepler mission, and this one is the first such discovery by TESS.

. The find was confirmed by the Spitzer Space Telescope, which sharpened the measurements that TESS had made, such as orbital period and size.

New discovered planet

. TOI 700 d measures 20% larger than Earth. It orbits its star once every 37 days and receives an amount of energy that is equivalent to 86% of the energy that the Sun provides to Earth.

. The star, TOI 700, is an "M dwarf" located just over 100 light-years away in the southern constellation Dorado, is roughly 40% of our Sun's mass and size, and has about half its surface temperature.

. TOI 700 d is the outermost planet, and the only one in the star's habitable zone.

Transiting Exoplanet Survey Satellite (TESS) mission:

. The Transiting Exoplanet Survey Satellite (TESS) is a space telescope for NASA's Explorers program, designed to search for exoplanets using the transit method in an area 400 times larger than that covered by the Kepler mission.

. TESS launched on April 18, 2018, on a SpaceX Falcon 9 rocket.

⊙ **CONCLUSION**
- NASA's planet-hunter satellite TESS has discovered an Earth-sized planet named TOI 700 d within the habitable range of its star, which could allow the presence of liquid water which is a great discovery as there has a great hunt for the discovery of water on other planets.

H9N2

⊙ **CONTEXT**
- **Indian scientists have detected the country's first case of infection with a rare variant of the virus that causes avian influenza, or bird flu.**

What is H9N2?

. H9N2 is a subtype of the influenza A virus, which causes human influenza as well as bird flu.

. The H9N2 subtype was isolated for the first time in Wisconsin, the US in 1966 from turkey flocks. According to the US National Centre for Biotechnology Information

(NCBI), H9N2 viruses are found worldwide in wild birds and are endemic in poultry in many areas.

. However, they are somewhat neglected.

. H9N2 viruses could potentially play a major role in the emergence of the next influenza pandemic.

. According to the World Health Organization (WHO), with avian influenza viruses circulating in poultry, there is a risk for sporadic infection and small clusters of human cases due to exposure to infected poultry or contaminated environments.

. Therefore, sporadic human cases are not unexpected.

> Influenza A viruses are the only influenza viruses known to cause flu pandemics, i.e., global epidemics of flu disease. A pandemic can occur when a new and very different influenza A virus emerges that both infects people and has the ability to spread efficiently between people.

How it has infected humans?

. H9N2 virus infections in humans are rare, but likely under-reported due to typically mild symptoms of the infections.

. Cases of human infection have been observed in Hong Kong, China, Bangladesh, Pakistan, and Egypt. One case was detected in Oman recently.

. The first case globally was reported from Hong Kong in 1998.

. A total of 28 cases in China have been reported since December 2015. Cases continue to be reported mainly from mainland China and Hong Kong.

. The virus has, however, spread extensively among poultry populations. Surveillance for influenza viruses in poultry in Bangladesh during 2008-2011 found H9N2 virus to be the predominant subtype.

. The virus was also identified in poultry populations in surveillance studies in Myanmar during 2014-16 and Burkina Faso in 2017.

. In India, the virus was picked up in February 2019 during a community-based surveillance study in 93 villages of Korku tribes in Melghat district of Maharashtra.

Understanding Influenza:

. The World Health Organization (WHO) defines influenza as "a contagious, acute respiratory illness caused by influenza viruses, usually influenza A or B subtypes."

. Influenza, also known as the flu, is a viral respiratory illness that can spread when a person with the infection sneezes or coughs and droplets travel to another person's nose or mouth.

. The influenza virus, which causes the illness, is of four types: A, B, C, and D.

œ **Influenza A:** An influenza A virus has two surface proteins:

> Hemagglutinin (H)

> Neuraminidase (N)

œ **Influenza B:** Influenza B viruses can also cause seasonal epidemics that typically only affect humans. There are two lineages of influenza B:

> Victoria

> Yamagata

. **Influenza C:** Influenza C viruses cause mild illnesses — they do not appear to cause epidemics.

. **Influenza D:** Influenza D viruses mainly affect cattle and do not seem to infect humans.

NASA'S ARTEMIS MISSION, AND THE INDIAN AMERICAN IN ITS NEW ASTRONAUT COHORT

◉ **CONTEXT**

- **Indian American Raja Chari is among 11 new astronauts who joined NASA's ranks on Friday (January 10), taking the strength of the active astronauts corps in the United States space agency to 48.**

◉ **ABOUT**

- This cohort of new astronauts may be assigned to space missions to the International Space Station (ISS), the Moon and ultimately, Mars.
- The agency has targeted the human exploration of Mars by the 2030s.
- Raja Chari was selected by NASA to join the 2017 Astronaut Candidate Class.

Artemis Program

- NASA wants to send the first woman and the next man to the Moon by the year 2024, which it plans on doing through the Artemis lunar exploration program.
- With the Artemis program, NASA wishes to demonstrate new technologies, capabilities and business approaches that will ultimately be needed for the future exploration of Mars.
- For the Artemis program, NASA's new rocket called the Space Launch System (SLS) will send astronauts aboard the Orion spacecraft a quarter of a million miles away from Earth to the lunar orbit.
- Once astronauts dock Orion at the Gateway — which is a small spaceship in orbit around the moon — the astronauts will be able to live and work around the Moon, and from the spaceship, astronauts will take expeditions to the surface of the Moon.
- The astronauts going for the Artemis program will wear newly designed spacesuits, called Exploration Extravehicular Mobility Unit, or xEMU.
- These spacesuits feature advanced mobility and communications and interchangeable parts that can be configured for spacewalks in microgravity or on a planetary surface.

NASA and the Moon

- The US began trying to put people in space as early as in 1961.
- Eight years later, on July 20, 1969, Neil Armstrong became the first human to step on the Moon as part of the Apollo 11 mission.

Moon exploration

- In 1959, the Soviet Union's uncrewed Luna 1 and 2 became the first rover to visit the Moon. Since then, seven nations have followed suit.
- Before the US sent the Apollo 11 mission to the Moon, it sent three classes of robotic missions between 1961 and 1968.
- Then in the 1990s, the US resumed lunar exploration with robotic missions Clementine and Lunar Prospector.
- In 2009, it began a new series of robotic lunar missions with the launch of the Lunar Reconnaissance Orbiter (LRO) and the Lunar Crater Observation and Sensing Satellite (LCROSS).
- In 2011, NASA began the ARTEMIS (Acceleration, Reconnection, Turbulence, and Electrodynamics of the Moon's Interaction with the Sun) mission using a pair of repurposed spacecraft and in 2012 the Gravity Recovery and Interior Laboratory (GRAIL) spacecraft studied the Moon's gravity.
- Apart from the US, the European Space Agency, Japan, China, and India have sent missions to explore the Moon.

. China landed two rovers on the surface, which includes the first-ever landing on the Moon's far side in 2019.

. The Indian Space Research Organisation (ISRO) recently announced India's third lunar mission Chandrayaan-3, which will comprise a lander and a rover.

NEON: THE VIRTUAL HUMAN

◉ **CONTEXT**

• **The Virtual HumanNEON was one of the most-discussed new concepts at the annual Consumer Electronics Show (CES) held in Las Vegas in 2020.**

◉ **ABOUT**

• NEONs, being called the world's first artificial humans, have been created by Samsung's Star Labs headed by Pranav Mistry, an India - born scientist.

. NEONs are computationally created virtual humans — the word derives from **NEO (new) + humaN.**

. For now the virtual humans can show emotions when manually controlled by their creators. But the idea is for NEONs to become intelligent enough to be fully autonomous, showing emotions, learning skills, creating memories, and being intelligent on their own.

. A virtual human is a Computer Generated (CG) human simulation with artificial intelligence. A virtual human can have a CG human body, and CG voice and computer empowered senses. Virtual humans can be applied in various domains such as education, marketing, branding, training & sales.

. Star Labs started work on NEONs by trying to replicate a friend. Initially, the models were trained on his face, and there were significant errors. But then, they started getting better, almost indistinguishable from the original.

How does it work?

. There are two core technologies behind his virtual humans.

. First, there is the proprietary CORE R3 technology that drives the "reality, real time and responsiveness" behind NEONs.

. It is the front-end reality engine that is able to give you that real expression.

. The company claims CORE R3 "leapfrogs in the domains of Behavioral Neural Networks, Evolutionary Generative Intelligence and Computational Reality", and is "extensively trained" on how humans look, behave and interact.

. But in the end, it is like a rendition engine, converting the mathematical models to look like actual humans.

. The next stage will be SPECTRA, which will complement CORE R3 with the "spectrum of intelligence, learning, emotions and memory".

. But SPECTRA is still in development, and is not expected before NEONWORLD 2020 later this year.

How could NEONs be used?

. NEONs are the interface for technologies and services.

. They could answer queries at a bank, welcome you at a restaurant, or read out the breaking news on television at an unearthly hour.

. This form of virtual assistance would be more effective, for example, while teaching languages, as NEONs will be capable of understanding and sympathizing.

How are they different from Virtual Assistants?

. Virtual Assistants now learn from all the data they are plugged into. NEONs will be limited to what they know and learn.

. Their leaning could potentially be limited to the person they are catering to, and maybe her friends — but not the entire Internet.

. They will not be an interface for you to request a song, rather they will be a friend to speak to and share experiences with.

. Currently, its developer doesn't want NEONs to have collective memory, or to share data among themselves.

THE FIRST 3-D MODEL OF GLUD1 RECEPTOR

⦿ **CONTEXT**

• **Researchers at the Department of Biotechnology's Pune-based National Centre for Cell Science (NCCS) have captured 'three-dimensional views' of a protein called 'GluD1 receptor'.**

What are GluD1 receptors?

. GluD1 receptor is a subtype of a family of proteins called **glutamate receptors**.

. Simply put, GluD1 is a protein that in humans is encoded by the GRID1 gene.

. Several studies have shown a strong association between several variants of the GRID1 gene and increased risk of developing schizophrenia.

. It is a postsynaptic organizer of inhibitory synapses in cortical pyramidal neurons.

. GluD1 is selectively required for the formation of inhibitory synapses and regulates GABAergic synaptic transmission accordingly.

On Glutamate:

. Glutamate is the most abundant neurotransmitter in our brain and central nervous system (CNS).

. It is involved in virtually every major excitatory brain function. Glutamate is also a metabolic precursor for another neurotransmitter called GABA (gamma-aminobutyric acid).

. ABA is the main inhibitory neurotransmitter in the central nervous system.

. **Glutamate receptors** play crucial roles in motor coordination and motor learning, high-frequency hearing and are also key to many other brain functions.

. Besides, they are linked to social and **cognitive deficits** and **neuronal disorders** like **Schizophrenia** and cocaine addiction.

> Neurological disorders are diseases of the central and peripheral nervous system. In other words, the brain, spinal cord, cranial nerves, peripheral nerves, nerve roots, autonomic nervous system, neuromuscular junction, and muscles. These disorders include epilepsy, Alzheimer disease and other dementias, cerebrovascular diseases including stroke, migraine and other headache disorders, multiple sclerosis, Parkinson's disease, neuro infections, brain tumours, traumatic disorders of the nervous system.

What has been founded?

. The researchers found that GluD1 receptors had an unprecedented domain organisation, distinct from that observed in other members of the glutamate receptor family.

. This shows that glutamate receptor ion channels are all not built the same way.

. Majority (60 percent) of excitatory brain signalling is carried out by glutamate receptor ion channels that are present on the synaptic junctions of neurons.

. Interestingly, while many other members of the family of glutamate receptor are activated by neurotransmitter glutamate binding, GluD1 receptors are not.

. This is a new discovery and could provide deeper insights into the molecular underpinnings of receptor functions.

How they did it?

. The researchers had complexed the receptor with ligands that stabilised it to ensure that it was visualised well.

. This was critical as the inherent conformational variations limit the details that could be observed otherwise.

. They used the Cryo-EM technique that images several thousand molecules in a frozen state and combines the 2D images generated to build a three-dimensional view.

Significance of the discovery:

. **Understanding nervous system disorders:** This new discovery offers clues into the structural difference that might offer some unique insight into the mechanism behind a wide range of nervous system disorders and diseases.

. **A platform to discover treatments:** The study has created a robust platform for understanding the functions of GluD1 and developing therapeutics to treat neurological disorders that are associated with GluD1 dysfunction.

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CURRENT AFFAIRS ANALYST
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SECTION: A
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EXAMINING INDIA'S FISCAL SITUATION

CONTEXT

. As India's economic slowdown has intensified, so has the debate on whether the government should stick to fiscal consolidation or run a higher deficit to push growth. We examine here the fiscal situation of the economy, and understand recurring concepts like off-budget liabilities.

⊙ ABOUT

- œ **Slowing economy**: India's economic growth decelerated to a six-and-a-half-year low of 4.5% in the September quarter.
  - > Manufacturing sector growth has contracted.
  - > Core sector growth has contracted.
  - > Growth in non-food credit is slow.
  - > Employment data is dismal.
  - > Many agencies have downgraded India's growth forecast.

- œ **Tight fiscal situation**: Government had reduced its fiscal deficit target to 3.3 per cent of the GDP for 2019-20 from the initial estimate of 3.4 per cent of the GDP in the interim Budget presented in February.
  - > However, the fiscal deficit overshot the budget estimate for the entire year.
  - > Even after taking into account the windfall gains in non-tax revenue, following the transfer of surplus reserves from RBI, and even without accounting for any off-budget liabilities, the fiscal deficit could be between 3.9 - 4.2% of the estimated GDP.
  - > This number can be higher if the off-budget liabilities are included.

Basic economic concepts

- . **Growth stimulus:** An economic stimulus is the use of monetary or fiscal policy changes to kick-start growth during a recession. Governments can accomplish this by using tactics such as lowering interest rates, increasing government spending, and quantitative easing, to name a few.

- . **Fiscal deficit:** The difference between total revenue and total expenditure of the government is termed as fiscal deficit. It is an indication of the total borrowings needed by the government.

- . **Gross Domestic Product:** It is the monetary value of all finished goods and services made within a country during a specific period.

- . **Recession**: An economy that is seeing negative growth rate or shrinking GDP for two consecutive quarters may be considered to be in a recessionary phase. A recession may be the outcome of tight monetary and fiscal policies aimed at controlling inflation.

- . **Depression**: When recession is severe in terms of the contraction in GDP and extends over a longer period of time, it turns into a depression.

- . **Stagflation**: Stagflation is a period of high inflation in a period of slow economic growth. Typically, costs push inflation, caused by supply side issues, or excessive liquidity in the system cause such inflationary conditions. Higher prices affect demand and further aggravate economic slowdown.
  - > Policy prescriptions in a situation of stagflation can be tricky since increasing interest rates to control inflation will make it difficult for the economy facing slowing growth to recover.
  - > At the same time, keeping rates low to support recovery may exacerbate the inflationary situation.

- . **Tax buoyancy**: Tax buoyancy refers to the responsiveness of tax revenue growth to changes in GDP. When a tax is buoyant, its revenue increases without increasing the tax rate.

- . **Multiplier effect:** The multiplier effect refers to the proportional amount of increase in final income which results from an injection of spending.

- . **Easy monetary policy:** An easy money policy is a monetary policy that increases the money supply usually by lowering interest rates.
  - > It occurs when a country's central bank decides to allow new cash flows into the banking system.

- . **Counter-cyclical fiscal measures:** These are policy measures which counteract the effects of the economic cycle. For example, when the economy is slowing it includes increasing government spending or cutting taxes to help stimulate economic recovery.

⊙ ANALYSIS

Industry's demand for fiscal stimulus

- œ **Industry demand:** Businesses are clamouring for a government stimulus to restart the investment cycle.
  - > **Private sector itself is not able to drive growth** in the economy due to liquidity

crunch on account of crisis in the non-banking financial company (NBFC) sector that is acting as a hurdle for private investment.

> The demand for fiscal stimulus by industry is more by way of **higher government spending** on infrastructure sectors such as roads and railways that could have a **multiplier effect** on downstream industries and the economy as a whole.

œ While businesses are clamouring for a government stimulus, the g**overnment has very little fiscal space** for any significant growth stimulus.

Reasons for small fiscal space

œ **Economic slowdown**: The spike in deficit numbers is largely on account of a pronounced slowdown in revenue, exacerbated by economic slowdown. Total revenue receipts are short of the budgeted amounts.

œ **Low GST collections:** As the economy has slowed, so have tax collections. GST revenue collection has been slow owing to operational difficulties.

> Estimated shortfall is more than 1trillion.

œ **Low direct tax collections:** Government's net revenue growth from direct taxes has decelerated sharply reflecting low tax buoyancy in the wake slowdown in economy.

œ **Low disinvestment receipts**: Disinvestment receipts are likely to fall short of the target this fiscal year.

œ **Compensation cess gap:** With state goods and service tax (SGST) collections also taking a hit, the compensation cess collections of the government is falling short of compensation requirement of states.

> And union government may have to use its own exchequer to make up for any such shortfall, and fulfil its constitutional guarantee to the states.

œ **Corporate tax cut**: The effective corporate tax rate came down from around 35% to 25%. While it was done with the intension to revive demand, it did not happen. It in fact further tightened the fiscal space of the government because of shortfall in corporate tax revenue.

Non-tax revenue options for the government

œ Slowing revenues prompt the government to tap **non-tax revenue options.**

œ **Dividends and surplus:** Given that tax revenue side appears bleak, among the non-tax revenue options, dividends and surplus from the **RBI, banks and financial institutions and public sector enterprises** are crucial to meet revenue requirements.

œ **Issuance of overseas sovereign bonds in foreign currency:** Unlikely to be implemented due to criticism.

œ **Expenditure cuts**: Expenditure cuts can help government meet fiscal targets, but it could be detrimental for the already slowing economic growth.

> Government has incurred a lower capital expenditure (capex) as revenues declined.

> Decline in investment activity evidenced by a nearly 30 per cent drop in capex in June 2019 quarter.

œ **Transfer of surplus reserves from RBI:** In line with recommendations of the Bimal Jalan Committee RBI transferred 1.76 trillion to the government this fiscal year.

> Some of these funds were used to recapitalize public sector banks.

> Excess money was reserved to meet the expected shortfall in tax revenues.

> This will help contain any fiscal slippage in FY20.

. **Operation twist:** Lately RBI launched operation twist to bring down long term yields, help government borrow cheap money against its bonds, and thereby induce demand for private sector loans (read PT article on Operation Twist).

Off-budget liabilities

œ **Off-budget financing**: It refers to expenditure that's not funded through the budget. Off-budget liabilities are basically 'withheld payments'.

> Deferred payments are not considered as expenses, and the government takes advantage to defer these payments to one of its 'own' firms.

> It may also undertake borrowing which are not included in government's debt.

œ **Why is it done:** Comptroller and Auditor General (CAG) of India have many times pulled up the government for increased use of off-budget financing for schemes and subsidies in order to comply with the Fiscal Responsibility and Budget Management Act.

> Since it remains outside the budget, there is little parliamentary control on such spending.

œ **Budget implications**: Off-budget financing by its nature isn't taken into account when calculating fiscal indicators. Such financing tends to hide the actual extent of government spending, borrowings and debt and increase the interest burden.

> If the government's off-budget liabilities are taken into account the 'real' deficit of current fiscal would shoot up to 5.5% of GDP.

œ **Examples**: Off-budget liabilities are basically payments withheld by the government; Examples include:

> National Small Savings Fund (NSSF) loans to public entities (as FCI, NHAI, and IRFC) and government-serviced bonds.

> Unpaid food subsidy bills to FCI (avails NSSF loans to run operations).

> Covering the fertilizer bills through special banking arrangements.

> Borrowing from NABARD under the Long Term Irrigation Fund to implement Accelerated Irrigation Benefits Programme.

> Creating special purpose vehicle (SPV) to construct a bridge (or other activities). The SPV will likely borrow money on the strength of a government guarantee.

œ **CAG suggestions:** A policy framework for off-budget financing that should include disclosures to parliament about the amount, rationale and objective of such funding.

Should India opt for fiscal stimulus?

œ **Empirical results:** During episodes of systemic banking crisis in advanced and emerging market countries during 1980-2008, timely **countercyclical fiscal measures** contributed to shortening the length of banking crisis episodes by stimulating aggregate demand.

œ **Fiscal consolidation**: But given India's high debt situation, it should stay the course on fiscal consolidation path. It is important that the deficit stays within target.

> There is also a risk of inflationary pressures building up.

œ **Avoid fiscal stimulus, opt for easing policy:** According to the IMF Indian government should avoid a fiscal stimulus to boost the sagging economy and, instead, opt for an easier monetary policy.

> Given cyclical weakness of the economy, in near-term, **monetary policy should maintain an easing bias**, at least until the projected recovery takes hold.

> Fiscal stimulus should be avoided, **given that the fiscal space is at risk.**

œ **Temporary fiscal stimulus:** In the event of a more severe economic slowdown than currently envisaged, any **fiscal stimulus should be temporary,** focusing on measures to boost **near-term growth**, such as immediate investment or public infrastructure spending.

Policy suggestions

œ **Reformative budget:** Taking government borrowing together with public sector borrowing, there is there is little space for any fiscal expansion. It is important to do policy changes, focusing on ease of doing business, and structural reforms that catalyse private investments.

œ **Increasing government consumption**: Stimulus packages that rely mostly on measures to support government consumption are more effective in shortening the crisis duration, than those based on public investment.

œ **Reducing consumption taxes**: Reducing the share of income taxes is less effective than reducing consumption taxes; as the later can help boost consumer spending, increase investment sentiments and thereby ease the banking crisis.

> IMF said that personal income tax collections could be increased by ending exemptions, reducing the minimum threshold for taxpayers, and by raising contributions of top earners (Ex. Surcharging their income).

œ **Medium term measures for fiscal consolidation:**

> Subsidy-spending should be rationalized.

> Tax-base should be enhanced.

> Revenue projections should be more realistic.

> Fiscal transparency and budget coverage should be enhanced.

****

WHAT IS THE AGREEMENT TO SETTLE BRU REFUGEES IN TRIPURA

CONTEXT

. **Twenty-three years after ethnic clashes in Mizoram forced 37,000 people of the Bru (or Reang) community to flee their homes to neighbouring Tripura; an agreement has been signed to allow them to remain permanently in the latter state.**

⊙ BACKGROUND

œ The agreement among the Bru leaders and the governments of India, Tripura, and Mizoram, signed.

œ It gives the Bru the choice of living in either state.

œ In several ways, the agreement has redefined the way in which internal displacement is treated in India.

⊙ ANALYSIS

What is in the Bru agreement?

œ All Bru currently living in temporary relief camps in Tripura will be settled in the state, if they want to stay on.

œ The Bru who returned to Mizoram in the eight phases of repatriation since 2009, cannot, however, come back to Tripura.

œ To ascertain the numbers of those who will be settled, a fresh survey and physical verification of Bru families living in relief camps will be carried out.

œ The Centre will implement a special development project for the resettled Bru; this will be in addition to the Rs 600 crore fund announced for the process, including benefits for the migrants.

œ Each resettled family will get 0.03 acre (1.5 ganda) of land for building a home, Rs 1.5 lakh as housing assistance, and Rs 4 lakh as a one-time cash benefit for sustenance.

œ They will also receive a monthly allowance of Rs 5,000, and free rations for two years from the date of resettlement.

œ All cash assistance will be through Direct Benefit Transfer (DBT), and the state government will expedite the opening of bank accounts and the issuance of Aadhaar, permanent residence certificates, ST certificates, and voter identity cards to the beneficiaries.

When will the Bru resettlement take place?

œ Physical verification to identify beneficiaries will be carried out within 15 days of the signing of the deal.

œ The land for resettlement will be identified within 60 days, and the land for allotment will be identified within 150 days.

œ The beneficiaries will get housing assistance, but the state government will build their homes and hand over possession.

œ They will be moved to resettlement locations in four clusters, paving the way for the closure of the temporary camps within 180 days of the signing of the agreement.

œ All dwelling houses will be constructed and payments completed within 270 days.

Where will the Bru be resettled?

œ Tripura is a small state, the government would explore the possibility of diverting forest lands, even reserve forest areas if necessary, to grant the new entitlements.

œ Diverting forest land for human settlements will, however, need clearance from the Union Ministry of Environment and Forests, which is likely to take at least three months.

In what condition are the migrants now?

œ The Bru or Reang are a community indigenous to Northeast India, living mostly in Tripura, Mizoram, and Assam.

œ In Tripura, they are recognised as a Particularly Vulnerable Tribal Group (PVTG).

œ They were targeted by the Young Mizo Association (YMA), Mizo Zirwlai Pawl (MZP), and a few ethnic social organisations of Mizoram who demanded that the Bru be excluded from electoral rolls in the state.

œ They depended on the wild for vegetables, and some of them have been practising slash-and-burn (jhum) cultivation in the forests.

œ They live in makeshift bamboo thatched huts, without permanent power supply and safe drinking water, with no access to proper healthcare services or schools.

How did the agreement come about?

œ In 2018, Bru leaders signed an agreement in Delhi with the Centre and the two state governments, providing for repatriation to Mizoram.

œ Most residents of the camps, however, rejected the "insufficient" terms of the agreement.

œ Only 328 families returned to Mizoram, rendering the process redundant.

œ The camp residents said the package did not guarantee their safety in Mizoram, and that they feared a repeat of the violence that had forced them to flee.

œ The Bru were originally from Tripura, and had migrated to Mizoram after their homes were flooded due to the commissioning of the Dumboor hydroelectric power project in South Tripura.

How is this agreement different from the earlier initiatives taken for the Bru?

œ Successive state and central governments had thus far stressed only on peacefully repatriating the Bru, even though the enduring fear of ethnic violence remained a fundamental roadblock.

œ The two other "durable solutions" for refugees and displaced persons suggested by the UN Refugee Agency — local integration or assimilation, and resettlement — were never explored.

œ Apart from their own Kaubru tongue, the Bru speak both Kokborok and Bangla, the two most widely spoken languages of the tribal and non-tribal communities of Tripura, and have an easy connection with the state.

œ Their long stay in Tripura, albeit in exile and in terrible conditions, has also acquainted them very well with the state's socio-political ecology.

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LAW AGAINST SEXUAL HARASSMENT AT WORK

CONTEXT

. **The Group of Ministers (GoM), constituted in the aftermath of the #MeToo movement after many women shared their ordeal on social media, has finalised its recommendations.**

◉ **BACKGROUND:**

œ The Group of Ministers (GoM) was constituted first in 2018 in the aftermath of the #MeToo movement after many women shared their ordeal on social media.

œ It was reconstituted in July 2019 under Home Minister Amit Shah.

œ The other members of the GoM are Finance Minister Nirmala Sitharaman, Human Resource and Development Minister Ramesh Pokhriyal and Women and Child Development Minister Smriti Irani.

œ The GoM also examined the report of the Justice J.S. Verma Committee that was constituted in the wake of the Nirbhaya gang-rape and murder in 2012.

œ The Verma committee had recommended an employment tribunal, instead of an ICC, as dealing with such complaints in-house could discourage women from coming out.

What is in the box?

œ The recommendations include the addition of new provisions to the **Indian Penal Code.**

œ The proposed amendments would be largely based on the **Vishaka Guidelines** laid down by the Supreme Court in 1997, on which the 2013 Act was based.

œ It made the employer responsible to prevent or deter acts of sexual harassment at the workplace.

œ The 2013 Act had shortcomings like giving the powers of a civil court to the internal complaints committee (ICC) without specifying if the members need to have a legal background.

œ It only imposed a fine of   50,000 on employers for non-compliance.

œ The Act said the employer shall provide assistance to the woman if she chooses to file a complaint under the IPC "against the perpetrator after the conclusion of the enquiry".

◉ **ANALYSIS:**

What is sexual harassment?

œ Workplace sexual harassment is a form of gender discrimination which violates a woman's

fundamental right to equality and right to life, guaranteed under Articles 14, 15 and 21 of the Constitution of India.

œ As per the **Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013**, any of the following circumstances, if it occurs or is present in relation to or connected with any act or behaviour of sexual harassment may amount to sexual harassment:

> implied or explicit promise of preferential treatment in her employment

> implied or explicit threat of detrimental treatment in her employment

> Interferes with her work or creating an intimidating or offensive or hostile work environment for her

> Humiliating treatment likely to affect her health or safety

œ This is further reinforced by the **UN Convention on the Elimination of all Forms of Discrimination against Women (CEDAW),** which is signed and ratified by India.

Statistical Overview of Sexual Harassment:

œ As per the **National Crime Records Bureau (NCRB),** the number of sexual harassment incidents at work or office premises registered under **Section 509 IPC (*words, gesture or act to insult the modesty of a woman*)** were **479** and **401** in the years 2017 and 2018 respectively.

œ Among the cities, the highest number of such cases were registered in Delhi (28), Bengaluru (20), Pune (12) and Mumbai (12) in 2018.

œ The total number of sexual harassment incidents in 2018 including that in public places, shelter homes and others was 20,962.

Laws against sexual harassment:

œ India's first legislation specifically addressing the issue of workplace sexual harassment; **the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013** ("POSH Act") was enacted by the Ministry of Women and Child Development.

œ The Act seeks to cover all women (irrespective of their age or employment status) and protect them against sexual harassment at all workplaces both

in public and private sector, whether organized or unorganized.

œ It makes it mandatory for all workplaces, including homes, universities, hospitals, government and non-government offices, factories, other formal and informal workplaces to constitute an internal committee for redressal of complaints.

œ **Section 354A** of the Indian Penal Code (IPC) deals with offences related to sexual harassment, which includes physical contact, unwelcome and explicit sexual overtures, demand or request for sexual favours, showing pornography to a woman against her will and making sexually coloured remarks.

Vishaka Guidelines:

œ The elimination of gender-based discrimination has been one of the fundamentals of the Constitutional edifice of India.

œ The principle of gender equality is enshrined in the Constitution, in its Preamble, fundamental rights, fundamental duties and Directive Principles.

œ However, workplace sexual harassment in India was for the very first time recognized by the Supreme Court of India in its landmark judgment of **Vishaka v. State of Rajasthan** ("Vishaka Judgment").

œ As per the Vishaka judgment, 'Sexual Harassment' includes such unwelcome sexually determined behaviour (whether directly or by implication) as:

> Physical contact and advances

> A demand or request for sexual favours

> Sexually coloured remarks

> Showing pornography

> Any other unwelcome physical, verbal or nonverbal conduct of sexual nature.

œ It proposed that sexual harassment is recognized as a violation of women's fundamental right to equality and that all workplaces/establishments/ institutions be made accountable and responsible to uphold these rights.

International legislative frameworks:

œ The following standards and frameworks include key contents on promoting equality and addressing sexual harassment:

> Universal Declaration of Human Rights, 1948

> ILO Discrimination (Employment and Occupation) Convention, 1958

> International Covenant on Economic, Social and Cultural Rights, 1966

> United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), 1979

> ILO Indigenous and Tribal Peoples Convention, 1989

> ILO Decent Work for Domestic Workers Convention, 2011

> UN Declaration on the Elimination of Violence against Women, 1993

> The Beijing Platform of Action, 1995

> ILO HIV and AIDS Recommendation, 2010

How does sexual harassment impact the nation?

œ The impact of sexual harassment at the workplace is far-reaching and is an injury to the equal right of women.

œ Workplace sexual harassment not only creates an insecure and hostile working environment for women but also impedes their ability to deliver in today's competing world.

œ Apart from interfering with their performance at work, it also adversely affects their social and economic growth and puts them through physical and emotional suffering.

Recent initiatives by Government to control harassment:

œ **SHe-Box:** The ministry of women and child development has set up what it calls the Sexual Harassment electronic–Box (SHe-Box), an online complaint system for registration of complaints related to sexual harassment at workplace. This can be used by employees of the government and private sectors.

œ **Dedicated committee:** Union Ministry for Women and Child Development announced the formation of a committee consisting of four retired judges to conduct public hearings of cases of arising from the #MeToo movement in 2018.

⊙ CONCLUSION:

œ Despite the horrors of Nirbhaya and the anti-rape laws, it is still a frightening reality that complainants continue to suffer victim-blaming, humiliation and distrust at police stations. Without a robust mechanism in place, things cannot be improved. The Government must work towards development of a permanent mechanism for prevention, prohibition and redressal of sexual harassment at the workplace.

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HOW CLOSE ARE IRAN AND THE US TO WAR?

CONTEXT

. Following the assassination of Maj Gen Qassem Soleimani, President Donald Trump tweeted on Saturday that if "Iran strikes any Americans, or American assets" in retaliation, the US would target 52 sites in Iran, "some at a very high level & important to Iran & the Iranian culture".

◉ BACKGROUND

œ Iran is home to one of the world's oldest civilisations dating back to 10,000 BC. Its rich heritage and culture is an amalgam of Arab, Persian, Turkish and South Asian cultures.

œ Twenty-four Iranian sites are on UNESCO's World Heritage List, two of which are natural sites and the rest cultural sites.

œ Among the main World Heritage Sites in Iran are the Meidan Emam and Masjed-e-Jame in Isfahan; the Golestan Palace in the historic heart of Tehran; Pasargadae and Persepolis, capitals of the Achaemenid Empire, founded by Cyrus II and Darius I in the 6th century BC; and the archaeological site of Takht-e Soleyman, which has the remains of an ancient Zoroastrian sanctuary.

◉ ANALYSIS

What is the problem with targeting cultural heritage?

œ Following the unparalleled destruction of cultural heritage in World War II, the nations of the world adopted at **The Hague in 1954**, The Convention for the Protection of Cultural Property in the Event of Armed Conflict.

œ **The Rome Statute of 1998**, the founding treaty of the International Criminal Court, describes as a "war crime" **any intentional attack against a historical monument, or a building dedicated to religion, education, art, or science**.

œ Article 8 of the Rome Statute deals with war crimes.

> Article 8(2)(b)(ii) says war crimes include "intentionally directing attacks against civilian objects, that is, objects which are not military objectives"

> 8(2)(b)(ix) mentions "intentionally directing attacks against buildings dedicated to religion, education, art, science or charitable purposes, historic monuments, hospitals and places where the sick and wounded are collected, provided they are not military objectives".

When has cultural property been targeted earlier?

œ During the **Siege of Dubrovnik** in 1991-92 by the Yugoslav People's Army, the old town of Dubrovnik in Croatia was targeted in an attempt to wipe out Croatian history and cultural heritage.

œ In 2001, the **Taliban destroyed statutes of the Buddha** that had been carved into sandstone cliffs in Bamiyan, Afghanistan

œ In 2006, the UN and the Cambodian government established the **Khmer Rouge Tribunal** to prosecute the destruction of Cambodia's cultural assets that included mosques, churches and temples along with other sites of cultural significance.

œ Between 2014 and 2017, the **Islamic State** destroyed several places of religious and cultural significance. In 2015, the IS captured and destroyed the ancient Syrian city of Palmyra, a UNESCO World Heritage Site.

US-Iran crisis is pushing India to clarify its stand

œ It is very likely that India is now taking the side of the US against Iran, with the blessings of Israel and Saudi Arabia which is becoming an important partner and investor along with the UAE. In this context**, Iran may turn to China more actively**.

œ This **US-Pakistan rapprochement** is not the only bad consequence that this new crisis in the Middle East may have for India.

œ **Economic sanctions on Iraq** will have a major impact on the Indian economy. Iraq continues to be India's top crude oil supplier and any US-led economic sanctions will force India to look for alternative oil suppliers, as in the case of Iran.

œ This will substantially increase the **costs associated with purchase of crude oil for India** and the country's dependence vis-à-vis the UAE, Saudi Arabia and the US, to which India has already turned, to make up for the anti-Iran sanctions.

œ India cannot afford to take sides. Energy supplies and the safety and security of its vast **diaspora in the Gulf are of utmost importance**. India has a substantial Shia population too, with sympathy for Iran.

What is Iran nuclear deal?

œ It is deal between Iran and **six major powers – US, UK, France, Russia, China and Germany and**

European Union signed in 2015 under which Iran agreed to limit its nuclear program in return for the relief from US and other economic sanctions.

œ **Limitations imposed on Iran:**

> Iran could only maintain a stockpile of 300 kilograms of low-enriched uranium, compared to the 100,000 kilograms of higher-enriched uranium it once had.

> It could enrich uranium to 3.67 percent, which can be used to fuel a reactor but was far below the 90 percent needed to produce a weapon.

> The deal limited the number of centrifuges Iran can run and restricted it to an older, slower model.

> It asks Iran to reconfigure a heavy-water reactor so it couldn't produce plutonium and to convert its Fordo enrichment site into a research centre.

> Under it Iran granted more access to International Atomic Energy Agency inspectors and allowed it to inspect other sites.

œ **Benefits given to Iran:**

> In exchange, world powers lifted the economic sanctions that had kept Iran away from international banking and the global oil trade.

> It allowed Iran to make purchases of commercial aircraft and reach other business deals.

> It also unfroze billions of dollars Iran had overseas.

Why US pulled out of Iran nuclear deal and re imposed sanctions?

œ The deal has a provision that fifteen years after the deal, restrictions on Iran's uranium enrichment and stockpile size will end.

œ US argued it allows Iran to build a bomb after it expires, something Iran had explicitly promised in the accord not to do.

œ In theory, Iran could have an array of advanced centrifuges ready for use, the limits on its stockpile would be gone, and it could then throw itself wholeheartedly into producing highly enriched uranium.

œ US withdrew from the deal in October 2018, and revived a range of sanctions against the countries buying oil from Iran.

Why were waivers given?

œ US, however, granted a six-month waiver from sanctions to eight countries - China, India, Japan, South Korea, Taiwan, Turkey, Italy, and Greece.

œ Waivers were given to these countries to give them flexibility and time to end their dependence on Iranian oil imports. These countries had showed that they have made important moves toward reducing Iranian oil imports to zero.

What are the consequences of sanctions?

œ **International trade**: Imposition of sanctions would hinder international companies working in Iran as they could not access US market for their business activities.

œ **Oil prices**: US sanctions would reduce Iran's oil exports and put pressure on global markets resulting in rising oil prices. Further in response, Iran has threatened to shut the Strait of Hormuz, a key maritime chokepoint for Persian Gulf producers, a third of the world oil passes through it. This will further reduce the oil supply to the world.

œ **Nuclear threat**: Sanctions would prompt Iran to restart its nuclear programme. It will also affect the denuclearisation efforts taken so far.

œ **West Asia**: The sanctions would aggravate the already existing instability in West Asia. It will further bitter the Iran - Israel and Iran - Saudi Arabia relations.

What are the consequences on India?

œ Iran in 2017-18 was India's third-largest supplier after Iraq and Saudi Arabia and meets about 10 per cent of total needs. The sanctions will significantly reduce the crude supply to India.

œ The substitute crude suppliers — Saudi Arabia, Kuwait, Iraq, Nigeria and the US — do not offer the attractive options that Iran does, including 60-day credit, and free insurance and shipping. The challenge is to secure an alternative supplier at competitive terms in an already tightening global situation.

œ **Current account deficit**: Higher crude oil prices will widen the trade deficit and current account deficit, given that the value of imports goes up with crude oil, and that the quantity imported tends to be sticky in general.

œ **Rupee**: The currency could be impacted if the trade and current account deficits were to widen. An increase in the import bill will tend to put pressure on the rupee.

œ **Inflation**: There could be significant impact on inflation, given how crude oil prices move and the extent to which the government allows the pass-through to the consumer.

œ **Fiscal impact**: There could be a two pronged impact on government finances — both on the revenue side and on the expenditure side. On the revenue side, higher oil prices mean more revenue for the states as tax is a percentage of base prices. The expenditure impact would primarily be on account of fuel subsidy outlays-the government has to allocate more funds for subsidy.

Way forward

œ India should make all efforts for a second waiver, keeping in view the close strategic partnership and the new role New Delhi is acquiring in the India-Pacific as a counter-balancing power vis-a-vis China.

œ Indian refiners should increase their planned purchases from the Organisation of the Petroleum Exporting Countries (OPEC), Mexico, and even the US to make up for the loss of Iranian oil.

œ India should diversify its source of energy from oil to liquefied natural gas and renewable sources like- solar energy, wing energy, hydro power and geothermal energy.

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INDIA - NEPAL

CONTEXT

. Recently, Nepal's Prime Minister and PM Narendra Modi inaugurated the second Integrated Check Post (ICP) on the India-Nepal border. On this occasion, the Nepali PM, Mr. Oli called for a resolution of what he termed as 'pending issues' with India.

⊙ BACKGROUND

- œ The **Jogbani (Bihar)-Biratnagar (Nepal) check post** is the second to be opened since the 2018 inauguration of the **Raxaul-Birgunj check post.**
  - > The **ICPs** are aimed at boosting **commercial and people-to-people links.**
- œ **"Neighbourhood First'** is a key plank of Indian government and improving cross-border connectivity is a key element of this.
- œ **Open borders:** India and Nepal share a **unique**
- œ **relationship of friendship and cooperation** characterized by open borders. Nepalese and Indian nationals **can move freely** across the border **without passports or visas** and may live and work in either country.
  - > While Indians aren't allowed to own land-properties or work in government institutions in Nepal, Nepalese nationals in India are allowed to work in Indian government institutions (except in some states and some civil services - IFS, IAS, and IPS).
- œ **Border sharing:** Nepal has an area of 147,181 sq. kms and **a population of 29 million.**
  - > It shares a **border of over 1850 kms** in the east, south and west with **five Indian States – Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand.**
  - > **In the north** it shares border with the **Tibet Autonomous Region** of the People's Republic of China.
- • **Importance of Nepal to India:** Nepal along with Bhutan acts as buffer against any possible aggression from China.
  - > Rivers originating in Nepal feed the perennial river systems of India.
  - > Many Hindu and Buddhist religious sites in Nepal make it an important pilgrim site.

⊙ ANALYSIS:

What are the 'pending issues'?

- œ **Kalapani issue:** There is a border dispute along the India-Nepal border close to China at a point, called Kalapani, which is **on the tri-junction**

between India, Nepal and China.

- > It has been guarded on the Indian side by **Indo-Tibetan Border Police since 1962**.
- > **India and Nepal both claim Kalapani, a 35sq. km are**a—India as part of Uttarakhand's Pithoragarh district and Nepal as part of its Darchula district.
- > The issue acquired fresh currency after India published its new map following the **bifurcation of Kashmir** into two Union territories.

> **Kalapani claims:**
>
> . **Nepal claims** that the river to the west of Kalapani is the main Kali river hence the area should belong to Nepal. **India claims** that the river to the west of Kalapani is not the main Kali river, and, therefore the border there should be based on the ridge lines of the mountains Om Parvat to the east of the river.

- œ **India-Nepal peace and friendship treaty:** There is a demand from Kathmandu to **rework** the 1950 India-Nepal peace and friendship treaty **to reflect current realities.**
  - > In 2014, the two countries had agreed to **"review, adjust and update**" the pact but progress has been slow.

> . **India-Nepal peace and friendship treaty 1950:** The **Indian government and Rana rulers of Nepal,** stated that "neither government shall tolerate any threat to the security of the other by a foreign aggressor" and obligated both sides "**to inform each other of any serious friction or misunderstanding** with any neighbouring state likely to cause any breach in the friendly relations subsisting between the two governments."
>
> - > The India-Nepal Treaty of Peace and Friendship of 1950 f**orms the bedrock of the special relations** that exist between India and Nepal.
>
> - > Under the provisions of this Treaty, the Nepalese citizens have enjoyed unparalleled advantages in India, **availing facilities and opportunities at par with Indian citizens**.

Infrastructure Development

œ **Earthquake relief:** A 7.8 magnitude earthquake struck Nepal in 2015. Government of India swiftly dispatched **National Disaster Response Force (NDRF)** teams and **special aircrafts** with rescue and relief materials to Nepal.
  > India's **assistance reached Nepal within six hours** of the earthquake.
  > **Medical teams** from India were deployed in various parts of Nepal.
  > India helped in **restoring 3 power sub–stations** in Kathmandu valley.
  > The total Indian relief assistance to Nepal amounted to approx. **US$ 67 million**.
  > Another **US$ 1 billion** was announced later, one-fourth of which would be as grant.
  > Nepal recently completed construction of **50,000 houses**, made possible through the **Indian grant**.

œ **Water resources**: A **three-tier mechanism** was established in 2008 to discuss all bilateral issues relating to cooperation in **water resources and hydropower.**
  > Assistance for strengthening and **extension of embankments along Lalbakeya, Bagmati and Kamla rivers.**
  > Setting up a **Development Authority** to carry out **Pancheshwar Multipurpose project.**

œ **Electricity:** An agreement on "Electric Power Trade, Cross-Border Transmission Interconnection and Grid Connectivity" popularly known as the **Power Trade Agreement** (PTA) was signed in 2014.
  > There are more than twenty **transmission interconnections** which are used both for **power exchange** in the bordering areas and **power trade.**

œ **Development:** GoI works in creation of **infrastructure at the grass-root level**, under which various projects have been implemented in areas of infrastructure, **health, water resources, education and rural & community development**.
  > Establishment of **Integrated Check Posts**.
  > India has **gifted ambulances and school buses** to various institutions and health posts across Nepal's 75 districts.
  > **Development of human resources** in Nepal has been one of the major aspects of bilateral cooperation.

œ **Connectivity:** The issue of better **connectivity is important** in case of India and Nepal, **because the relationship is not simply of neighbours but of shared** history and geography.
  > India is working on cross-connectivity projects including **road, rail and transmission lines** in Nepal.

œ **Agriculture:** **'India-Nepal New Partnership in Agriculture'** was launched to focus on collaborative projects in agricultural research, development and education.

Culture

œ There is a **people-to-people contact** in the area of **art & culture, academics and media** between the two countries.

œ **Cultural MoUs** between:
  > Sahitya Kala Akademi (India) and the Nepal Academy.
  > Doordarshan and Nepal TV, Press Council of India and Press Council of Nepal, Lalit Kala Akademi, India and Nepal Academy of Fine Arts.
  > MoU on Youth Exchange.

œ Three **sister-city agreements** for twinning of **Kathmandu-Varanasi, Lumbini-Bodhgaya and Janakpur-Ayodhya.**

œ India is establishing an **E-library system across Nepal**.

œ The **Archaeological Survey of India (ASI)** is involved in renovation of **Pashupatinath Temple Complex** in Kathmandu.

œ An **Indian Cultural Centre** was set up in Nepal in 2007.

œ The **Nepal–Bharat Library** was founded in 1951 in Kathmandu. It is regarded as the first foreign library in Nepal.

œ Around **6,00,000 Indians are living/domiciled in Nepal.** While nearly **6 million Nepali citizens live and work in India.**

œ The age old bond between the two nations through marriages and familial ties is popularly known as **Roti-Beti ka Rishta.**

œ **Buddhism:** India and Nepal share similar ties in terms **of Hinduism and Buddhism** with Buddha's birthplace **Lumbini** located in present day Nepal.
  > Setting up of a Light & Sound show at Lumbini with Indian assistance

Economic

œ **Indian firms are the biggest investors in Nepal**, accounting for about 38.3% of Nepal's total approved foreign direct investments.

œ There are about **150 operating Indian ventures in Nepal** engaged in manufacturing, services (banking, insurance, dry port, education and telecom), power sector and tourism industries.

œ Some large Indian investors include **ITC, Dabur India, Hindustan Unileve**r, VSNL, TCIL, MTNL,

SBI, PNB, LIC and more.

Exchanges and Bilateral agreements

œ There are regular exchanges of **high level visits and interactions** between India and Nepal.

œ In 2014, Nepalese Prime Minister **visited India to attend the swearing-in ceremony** of PM Modi.

œ **Share multiple multilateral forums**: **BBIN** (Bangladesh, Bhutan, India, and Nepal), **BIMSTEC** (Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation) **NAM**, and **SAARC** (South Asian Association for Regional Cooperation) etc.

œ India and Nepal have several **bilateral institutional dialogue mechanisms**, including the **India-Nepal Joint Commission**.

Military exercises

œ **Regular military exercises** between India and Nepal have helped strengthen friendly relations between the two militaries for centuries.

œ **SURYA KIRAN:** Joint military exercise '**SURYA KIRAN – XIV'** was conducted in December 2019. The aim of the exercise is to conduct a **battalion-level combined training** between **Indian Army and Nepal Army** to increase interoperability in **jungle warfare and counter terrorist operations** in mountainous terrain, humanitarian assistance and disaster relief, medical and environmental conservation including aviation aspects.

> Exercise SURYA KIRAN - XIV is an **annual event** which is conducted alternatively in Nepal and India.

Political support

œ **Comprehensive Peace Agreement (CPA) of November 2006:** A 12-Point understanding was reached between Seven Party Alliance and Maoists at Delhi in November 2005.

> India also supported the roadmap laid down by the historic CPA towards political stabilization in Nepal, through peaceful reconciliation and inclusive democratic processes.

œ **2015 Constitution:** Nepal's second Constituent Assembly promulgated a Constitution in 2015. At the time, India expressed its concern regarding the **Madhes protests**.

> . **Madhes Movement** a political movement launched by various political parties, especially those based in Madhes; southern region of Nepal, for equal rights, dignity and identity of **Madhesis and Tharus, Muslims and Janjati** groups. In nearly a decade, Nepal witnessed three Madhes Movements - in 2007, in 2008 and finally in 2015.

Relationship timeline

œ The 1950 friendship treaty with India was signed against the backdrop of **fear** of Rana rulers that the **China-backed communist government will overthrow their (Rana) autocratic regime.**

œ This was the start of increased involvement of **India in Nepal's politics.**

œ Soon **Nepal's Royal family's dissatisfaction** with India's growing influence began to emerge, and **overtures to China were initiated by Nepal as a counterweight to India.**

œ **During the cold war era, Nepal showed a pro-USA tilt** by establishing diplomatic ties with Israel, while India at the time supported Palestine.

œ Following the **1962 Sino-Indian border war**, relationship between India and Nepal eased. India also won a **monopoly on arms sales to Nepal**.

œ In **1969 relations again became stressful** as Nepal challenged the existing mutual security arrangement and asked that the Indian security check posts and liaison group be withdrawn.

œ **Tensions escalated in the mid-1970s**, when Nepal pressed for substantial changes in the **trade and transit treaty** and openly **criticised Sikkim's 1975 annexation** by India.

œ In 1975, the then king of Nepal proposed Nepal to be recognized internationally as a **'Zone of Peace'** where military competition would be off limits. **Nepal's proposal received support from Pakistan and China, but not from India**, as India saw it as possible threat to its security.

œ In **1978 India agreed to separate trade and transit treaties**, satisfying a long-term Nepalese demand.

œ But India consistently **allowed the opposition parties of Nepal to use Indian soil** to launch agitation against the Nepalese government.

œ Nepalese government retaliated by refusing to accommodate India's wishes for a single trade and transit treaty stating that **'it violates the principle of freedom to trade' and rights of a land-locked country.**

> It also attempted to acquire Chinese weaponry in 1988.

œ As a retaliatory measure **India imposed economic sanctions on Nepal** causing Nepal's GDP growth rate to decrease from 9.7% in 1988 to 1.5% in 1989.

> Higher tariffs were imposed.

> Calcutta port was closed for trade.

œ Finally, Indian government, with the help of Nepalese opposition parties operating from India, managed to bring a **change in Nepal's political system**, in which the king was forced to institute a **parliamentary democracy**. The new government,

led by pro-India parties, sought quick **restoration of amicable relations with India.**

Current relationship and Concerns

œ **Political instability**: Nepal over the years has witnessed chronic political instability damaging Nepal's development and economy.

> There is also an **anti-India feeling** among certain ethnic groups in Nepal which perceive India to over indulge in affairs of Nepal threatening; its political sovereignty.

œ **Terrorism**: Its open borders with India are exploited by terrorist outfits and insurgent groups from North Eastern part of India.

œ **Fake currency**: Nepal Route has become a point of entry for fake Indian currency. Earlier, the demonetisation of 500 and 1000 rupee notes caused difficulty in Nepal.

œ **China factor: India and China are geo-political rivals in Nepal**, competing for more economic and political space in the region.

> Recently China promised Nepal to realise its dream of becoming a "land-linked" country. Feasibility study of a **trans-Himalayan railway link** was conducted with the aim to help land-locked Nepal to realise its goal of achieving "**strategic autonomy**".

> Growing diplomatic relations between Nepal and China and China's growing influence in Nepal has overtime widened **trust deficit between India-Nepal.**

œ **Nepal revisiting its foreign policy:** Recently Nepal has taken steps to broaden its foreign policy horizons beyond India and China. It ruling party attempts to engage with old partners like UK, US, Japan, and other European countries.

> It will also pay more attention to Gulf countries, which host millions of Nepali migrant workers.

œ **Aggressive policies towards India**: And once again after a long gap, Nepal is pursuing aggressive policies in diverse sectors to distance itself from India's sphere of influence.

> Mandatory teaching of Mandarin in schools. And opposing teaching of Hindi language.

Way forward

œ Nepal and India must work towards reducing their differences. Otherwise, the growing distance could prove counterproductive to the interests of both countries.

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RETHINK SPEAKER'S POWER TO DISQUALIFY LAWMAKERS: SC

CONTEXT

. **The Supreme Court of India has asked Parliament to amend the Constitution to strip Legislative Assembly Speakers of their exclusive power to decide whether legislators should be disqualified or not, under the Anti-Defection Law.**

What is 'Anti-Defection Law'?

œ The 'anti-defection law' was passed through an Act of Parliament in 1985.

œ Passed as the **52nd Amendment Act**, it added the law as the **10th Schedule** of the Constitution of India. Articles 102 (2) and 191 (2) deals with anti-defection.

œ *Aaya Ram Gaya Ram* was a phrase that became popular in Indian politics after a Haryana MLA Gaya Lal changed his party thrice within the same day in 1967.

œ The anti-defection law sought to prevent such political defections which may be due to reward of office or other similar considerations.

œ It lays down the process by which legislators may be disqualified on grounds of defection by the Presiding Officer of a legislature based on a petition by any other member of the House.

œ A legislator is deemed to have defected if:

> He either voluntarily gives up the membership of his party

> He disobeys the directives of the party leadership on a vote

œ This implies that a legislator defying (abstaining or voting against) the party whip on any issue can lose his membership of the House.

œ The law applies to both Parliament and state assemblies.

Exception:

œ There are few exceptions in the law. However, this exception is applicable only if not less than two-thirds of the members of the party in the House have emerged to the merger.

œ A person shall not be disqualified if his original political party merges with another, and:

> He and other members of the old political party become members of the new political party, or

> He and other members do not accept the merger and opt to function as a separate group.

SC on the issue:

œ A three-judge Bench led by Justice Rohinton F. Nariman questioned why a Speaker, who is a member of a particular political party and an insider in the House, should be the "sole and final arbiter" in the disqualification of a political defector.

œ "It is time Parliament had a rethink on whether disqualification petitions ought to be entrusted to a Speaker as a quasi-judicial authority when such Speaker continues to belong to a particular political party either de jure or de facto,".

œ For that matter, it asked why disqualification proceedings under the Tenth Schedule (anti-defection law) should be kept in-house and not be given to an "outside" authority.

œ Even the final authority for removal of a judge is outside the judiciary and in Parliament.

œ **Replacing Speaker with tribunal:** Disqualification petitions under the Tenth Schedule should be adjudicated by a mechanism outside Parliament or the Legislative Assemblies. The court suggested a permanent tribunal headed by a retired Supreme Court judge or a former High Court Chief Justice to determine the fate of an MP or an MLA who has switched sides for money and power.

BACKGROUND

. This is the second time in as many months, the SC has highlighted the issue of taking away the disqualification power under the Tenth Schedule from Speakers.

. In a 109-page judgment by a three-judge Bench led by Justice N.V. Ramana in the Karnataka MLAs' disqualification case, the court had held that a Speaker who cannot stay aloof from the pressures and wishes of his political party does not deserve to occupy his chair.

. This judgment of November last, also urged Parliament to "reconsider strengthening certain aspects of the Tenth Schedule, so that such undemocratic practices are discouraged".

Power of Speaker under Tenth Schedule:

œ The Speaker is the head of the Lok Sabha Secretariat which functions under her ultimate control and direction.

œ Under the provisions of the Tenth Schedule to the Constitution of India (para-6) Presiding Officer of the concerned House is the sole and final authority to determine the alleged question of disqualification on the ground of defection.

œ On the other hand, to determine the question as to whether the Speaker/Chairman of a House has indeed defected, the Tenth Schedule provides for a procedure according to which a member of concerned House is elected on an ad-hoc basis to determine the alleged question of disqualification on the ground of defection.

œ After **Kihoto Hollohan versus Zachilhu case (1993)**, the Supreme Court declared that the decision of the presiding officer is not final and can be questioned in any court.

œ It is subject to judicial review on the grounds of malafide, perversity, etc.

Major cases on the Anti-Defection Law:

Dr. Kashinath vs. Speaker, Goa Assembly (1993)

. The Speaker cannot review his own decision over defection to disqualify a candidate, due to lack of provision in the 10th Schedule.

Ravi S Naik v. Union of India (1994)

. SC rules that "Voluntary giving up membership" has a wider meaning, and that inference of giving up membership of his conduct.

G. Vishwanath VS. Speaker, Tamil Nadu Assembly (1996)

. SC rules that a member expelled from a party would be 'unattached' in House, and that his joining a party after that would be considered defection

Anti-Defection Law in other countries:

œ Among the Commonwealth countries, anti-defection law is prevalent in 23 nations.

œ The anti-defection law in Bangladesh, Kenya, South Africa and Singapore disqualifies a legislator on his ceasing to be a member of the party or when he is expelled.

œ In the United Kingdom Parliament, a member is free to cross over to the other side, without being daunted by any disqualification law.

œ In the United States, Canada, and Australia, there is no restraint on legislators switching sides.

The need for amendment:

œ The Anti-Defection Law has several loopholes that obstruct the democratic functioning of the electoral process.

œ **Controversial:** The law has invited controversy from the beginning, being challenged in court multiple times. Soon after its introduction, it was taken to the SC for being "unconstitutional."

œ **Misuse:** Though it curbed the free movement of legislators between parties, its loopholes still enabled the misuse of its provisions for partisan ends. In 1987, paragraphs 6 and 7 of the Tenth Schedule came into question because they did not allow room for judicial review of cases of defection.

œ **Partisan Speakers:** The power to decide petitions seeking disqualification of lawmakers under the anti-defection law i.e. the Tenth Schedule rests with the Speaker. The speaker necessarily belongs to a political party, and therefore, their judgment cannot be impartial. This negates the spirit of the Anti-Defection Law.

œ **Delay in duty:** In most cases, Speakers have failed to act in an impartial manner, forcing the top court to intervene from time to time.

œ **Pressure & criticism:** The anti-defection law has put the entire onus on the Speaker in the matters related to disqualification of members of the Legislative House. Even if the Speaker is impartial, he faces undue pressure and criticism.

Benefits of amendment:

œ **More power:** An amendment will give teeth to provisions in the Tenth Schedule, which are vital to the proper functioning of democracy.

œ **Unbiased & quick decision:** Setting up of a permanent tribunal will ensure that such disputes are decided both swiftly and impartially.

œ **Improving the structure:** For now, tightening and cleaning up the anti-defection law is among the most urgently needed reform. It is essential to tend to the health of the world's largest democracy.

œ **To combat the constitutional crisis:** Despite the anti-defection law, the phenomenon still prevails (defections in Karnataka, Goa). These incidents have raised questions on the validity of the anti-defection law and its application. Reforms are needed to combat constitutional crises.

œ In the world's largest democracy, political changes will keep happening and the country cannot escape from it. Therefore, it is essential to ponder upon the politics of defection not only because it leads to a constitutional crisis but also it makes the democracy of India more vulnerable and weak. It is time to re-evaluate whether the present law of anti-defection can ensure political ethics or morality.

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SECTION: B
(PRELIMS)
CURRENT AFFAIRS

INDIAN PROTECTIONISM

◉ **CONTEXT**

• Recent escalation of protectionist steps between US and China has raised questions about India's policy response.

◉ **ABOUT**

• **After independence in 1947,** India spent decades trying to survive without international trade.

. While this **protection** succeeded in creating a **large and highly diversified industrial base**, it also led to **inefficiency in the use of resources**.

. India ditched its model of local production for local consumption following a **currency crisis in early 1990s.** It **open up to foreign investment** and removed trade barriers in exchange of help from **IMF.**

. Since 1991, the tariff policy of India has led to a systemic **reduction in India's weighted effective average tariff.**

. **Decline in average tariff** has coincided with a **sharp rise in GDP** and **higher growth rate**. Lower tariffs offered following few **benefits:**

œ **Rise in exports** and **reduction in poverty** at the fastest pace in India's history.

œ India emerged as a **leader in exports of IT services**, and is now a key player in **pharmaceuticals.**

œ It also helped India run a **trade surplus** - whereby it sells more than it buys - **in goods and services with US.**

œ Trade liberalization fostered an atmosphere of intense c**ompetition**, leading to better use of inputs and innovation, driving **productivity growth.**

. **Current Scenario:** Recent trade experience has been mixed.

œ **Export growth is slow paced**.

œ The current economic slowdown has led to a **drop in the value of imports**, thus **shrinking the current account deficit.**

"Infant industry" argument

. Protecting 'infant' domestic industries: The argument in favour of high tariffs or import substitution is that in developing countries, industries are yet to develop and, therefore, need to be protected from international trade.

. Import substitution policy: Government uses trade tariffs as a policy instrument to encourage domestic industry, the idea being to substitute imports with domestic goods.

> The "infant industry" argument was often cited to justify the policy of tariffs, licences and quotas that predated the 1991 reforms.

India a "tariff King" and growing protectionism

. A few months back, President Donald Trump described India as **"the tariff king",** accusing it of imposing **"tremendously high" tariffs on American products**.

. When higher tariffs are supplemented by **higher current account deficit** and **fall in rupee**, they reinforce a growing **trend of protectionism.**

. **India is among the most heavily protected economies in the world:**

œ Among members of BRICS grouping—Brazil, Russia, India, China, South Africa—India has the **highest effective tariff rates on food items, automobiles and industrial inputs**.

œ Data from the Global Trade Alert (GTA) database shows that India and the US introduced the **most trade restrictions in 2018.**

œ Number of harmful **interventions implemented by India has increased** in last decade.

œ A recent World Bank report accused India of increasingly resorting to trade remedy measures such as **anti-dumping and safeguard actions.**

œ In its latest report on global trade barriers, the US trade department singled out India as having the **highest tariffs "of any major world economy" - averaging 13.8%.**

. While import tariffs may provide the economy with **short-term relief**, growing protectionism **can have long term adverse consequences**.

Case against growing protectionism

. At a time when other economies are also raising trade barriers, it is easy to fall into the **protectionist trap.**

. **Will undo trade liberalisation benefits:** India's trend to protectionism threatens to undo more than two decades of trade liberalization measures that have powered India's growth over the past quarter century, boosting incomes and helping cut poverty levels.

. **Will be hardest hit:** A recent OECD report warned that **India, Australia and China would be the biggest losers in terms of per-capita income** growth if the current wave of trade protectionism escalates and slows down global growth.

Higher tariffs do not aid Make in India

. **Disincentive competition:** There is adequate empirical evidence, including India's experience, that suggests protectionism and tariff barriers act as a disincentive for domestic industries to become competitive.

. **Higher input cost:** A higher tariff on imported inputs result in higher input costs for manufacturers, which could otherwise be **competitive if they could import cheaper inputs**.

œ Hence, a comprehensive view of the supply chain must be taken while making any changes to tariff policies.

. **High-level advisory group suggestions:** Amidst US-China trade war, it is possible that higher tariffs might be imposed by other countries on Indian goods and services. It would be **beneficial for India does not retaliate with tariffs.**

œ Any move to raise tariffs **must consider the integrated supply chains** and the fact that Indian imports are largely for domestic consumption.

Suggested policy response

. As production takes place through supply chains, India should **integrate with global markets** to **ensure adequate labour-intensive manufacturing jobs.**

. As India has a natural **comparative advantage in labour-intensive economic activities**, such activities should benefit from **provision of adequate infrastructure for manufacturing** and the **elimination or reform of crippling anti-business labour laws.**

. Tariffs can be part of a revenue-raising strategy, but it is b**etter to have a small, uniform (same for all goods) tariff, rather than large tariffs** in seemingly arbitrary sectors.

œ This would help avoid the problem of "effective" rate of protection deviating from the nominal rate, and the possible worsening of the problem of tariff inversion.

Effective rate of protection (ERP): In economics, ERP is a measure of total effect of the entire tariff structure on the value added per unit of output in each industry, when both intermediate and final goods are imported.

Nominal rate of protection (NRP): NRP is the percentage tariff imposed on a product as it enters the country.

Tariff inversion: It is a case where tariffs on intermediate inputs are higher than tariffs on final goods, making domestic production inefficient.

BHASHAN CHAR ISLAND TO HOUSE 100,000 ROHINGYA REFUGEES

⊙ **CONTEXT**

- **Bhashan Char, a Bangladeshi island regularly submerged by monsoon rains is ready to house 100,000 Rohingya refugees.**

⊙ **ABOUT**

- The **Bhashan Char**, also known as **Thengar Char**, is an uninhabited island around 30 kilometres east of **Hatiya island** in South-East Bangladesh.

. Hatiya has a population of 600,000. Bhashan Char island was formed about two decades ago on the mouth of river Meghna.

. In the Bengali language "Bhashan Char" means "floating island".

. It's also not ancient as Hatiya, which was formed over 500 years ago. Bhashan Char emerged around 20 years ago.

. During the full moon or new moon half of the Island goes under the water, and during monsoon, **60% of the Island submerged under the water**.

Who are Rohingyas?

. Rohingya are an ethnic group (largely comprising Muslims), who predominantly live in the Western Myanmar province of Rakhine. They speak a dialect of Bengali, as opposed to the commonly spoken Burmese language.

. Though the group have been living in the South East Asian country for generations, Myanmar considers them as persons who migrated to their land during the Colonial rule.

. So, the country has not granted Rohingyas full citizenship.

. According to the 1982 Burmese citizenship law, a Rohingya (or any ethnic minority) is eligible for citizenship only if he/she provides proof that his/her ancestors have lived in the country prior to 1823. Else, they are classified as "resident foreigners" or as "associate citizens" (even if one of the parents is a Myanmar citizen).

. Since they are not citizens, they are not entitled to be part of civil service. Their movements are also restricted within the Rakhine state.

. In August 2017, the Myanmar army launched a crackdown on the Rohingya minority, forcing over 700,000 of the ethnic community to cross the border and take shelter in overcrowded refugee camps at Cox's Bazar.

Challenges & Issues:

. The Bhashan Char which has emerged less than two decades back from the sea falls in an ecologically fragile area prone to floods, erosion and cyclone.

. Too many serious questions remain unanswered regarding protection, freedom of movement, access to livelihoods, logistics, and the availability of services.

. There is also a slim chance of humanitarian services of non-government organizations (NGOs) on that remote island.

. At present, many international and local NGOs are working at the Rohingya camps in Cox's Bazar, providing much-needed food, shelter, healthcare, and other aid to the refugees.

However, the Bangladeshi government has claimed that they have built quality infrastructure, even villages in Bangladesh have never seen such good work. The Government have built multi-family concrete homes, hospitals, mosques, schools, playgrounds and roads. There are solar-power facilities, a water supply system. They have constructed raised concrete buildings that could be used as cyclone shelters.

COLLAPSING TRADE BETWEEN INDIA AND PAKISTAN

◉ **CONTEXT**
- **Tensions between India and Pakistan in 2019 have reduced the already low volumes of trade between the two countries to near zero.**

◉ **BACKGROUND**
- Following the terrorist attack on the CRPF convoy in Pulwama in February, India withdrew **Most Favoured Nation** (MFN) status for Pakistan and raised customs duty on Pakistani imports to 200% and, in April, suspended cross-LoC trade to stop the misuse of this route by Pakistan-based elements.

. Pakistan on its part **closed its airspace** to India for a prolonged period.
. The decisions by both countries, while targeted at hurting the neighbour, have severely impacted the livelihoods of individuals and families involved in cross-border trading activities.
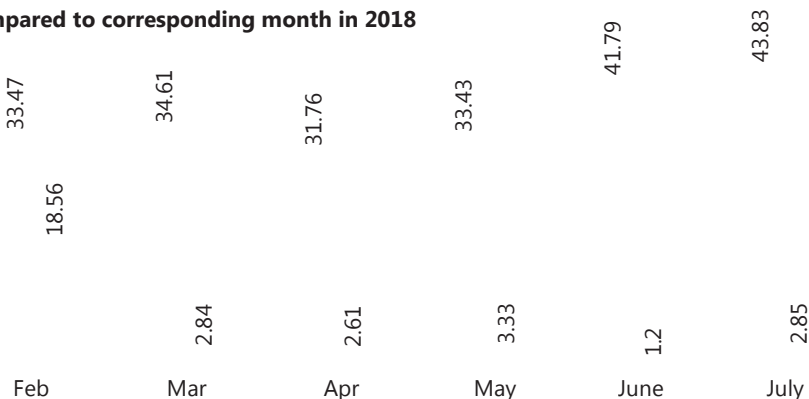
Analysis of trade:
. In 1948-49, about 56% of Pakistan's exports were to India, and 32% of its imports came from India.
. From 1948-65, India and Pakistan used a number of land routes for bilateral trade; there were eight customs stations in Pakistan's Punjab province and three customs checkposts in Sindh.
. India remained Pakistan's largest trading partner until 1955-56.
. Between 1947 and 1965, the countries signed 14 bilateral agreements on trade, covering avoidance of double taxation, air services, and banking, etc.
. In 1965, nine branches of six Indian banks were operating in Pakistan.

Scenario after attacks:
. Monthly average of trucks crossing from Wagah to Attari fell from 4,381 in April-November 2018 to 348 in the same period in 2019.
. Monthly average of trucks crossing from Attari to Wagah fell from 223 in April-November 2018 to 113 during the same period in 2019.
. It stopped altogether from September onwards.

PAK EXPORTS TO INDIA AFTER PULWAMA ATTACK (in $ mn)

Compared to corresponding month in 2018

	Feb	Mar	Apr	May	June	July
2018	33.47	34.61	31.76	33.43	41.79	43.83
After	18.56	2.84	2.61	3.33	1.2	2.85

Major items of exports and imports:

. Currently, there are two important trade routes between India and Pakistan:

œ **Sea route:** Mumbai to Karachi

œ **Land route** through Wagah border

. However, business is also done through Chakan Da Bagh in Poonch and Salamabad in Uri.

Indian import from Pakistan

. India imports a total of 19 major products from Pakistan: dry food, fresh fruits (guava, mango and pineapple), cement, finished leather, spices, wool, rubber products, minerals and ores, inorganic chemicals, alcohol beverages, medical equipment, sporting goods, marine goods, plastic and raw cotton etc.

Indian Export to Pakistan:

. Pakistan mainly imported tomato from India. However, Pakistan has banned the import of Indian tomato.

. After the Pulwama Attack India snatched the "Most Favoured Nation" status of Pakistan that is why India imposed 200% export duty on the tomato exported to Pakistan which increased the price of tomato up to Rs. 200 per kg in Pakistan.

. There are 14 items mainly imported by Pakistan from India: tea, sugar, oil cake, cotton yarn, tires, rubber, dye, petroleum oil, raw cotton and chemicals etc.

⊙ **BACKGROUND**
• Pakistan is geographically located at a strategic position between India and the energy-rich Gulf. It serves as a vital land link between South Asia and Central Asia. If India and Pakistan can make their relations friendly or at least trade-friendly the entire region can gain. It requires both the countries to engage in trade again and re-establish the trade ties. It will help to boot their economies.

UAE HAS BEEN DECLARED 'RECIPROCATING TERRITORY' BY INDIA. WHAT DOES THIS MEAN?

⊙ **CONTEXT**
• **Ministry of Law and Justice issued an Extraordinary Gazette Notification, declaring the United Arab Emirates to be a "reciprocating territory" under Section 44A of the Civil Procedure Code, 1908. The notification also declared a list of courts in the UAE to be "superior Courts" under the same section.**

⊙ **ABOUT**
- Apart from UAE, the other countries declared to be "reciprocating territories" are:
  - œ United Kingdom,
  - œ Singapore,
  - œ Bangladesh,
  - œ Malaysia,
  - œ Trinidad & Tobago,
  - œ New Zealand,
  - œ the Cook Islands (including Niue) and the Trust Territories of Western Samoa,
  - œ Hong Kong,
  - œ Papua New Guinea,
  - œ Fiji,
  - œ Aden.

What is a 'reciprocating territory' and what are superior courts?

- Essentially, orders passed by certain designated courts from a 'reciprocating territory' can be implemented in India, by filing a copy of the decree concerned in a District Court here.
- The courts so designated are called 'superior Courts'.

What does Section 44 of the CPC say?

- Section 44A, titled "Execution of decrees passed by Courts in reciprocating territory", provides the law on the subject of execution of decrees of Courts in India by foreign Courts and vice versa.
- Decree passed by "a superior Court" in any "reciprocating territory" can be executed in India by filing a certified copy of the decree in a District Court, which will treat the decree as if it has been passed by itself.
- The scope of the Section is restricted to decrees for payment of money, not being sums payable "in respect of taxes or other charges of a like nature or in respect of a fine or other penalty".
- It also cannot be based on an arbitration award, even if such an award is enforceable as a decree or judgment.

Which UAE courts are now "superior Courts"?

- Federal Court
  - œ Federal Supreme Court
  - œ Federal, First Instance and Appeals Courts in the Emirates of Abu Dhabi, Sharjah, Ajman, Umm Al Quwain and Fujairah
- Local Courts
  - œ Abu Dhabi Judicial Department;
  - œ Dubai Courts;
  - œ Ras Al Khaimah Judicial Department;
  - œ Courts of Abu Dhabi Global Markets;
  - œ Courts of Dubai International Financial Center.

Why is the move significant?

- The decision is believed to help bring down the time required for executing decrees between the two countries.
- Notification was the only remaining part of a 1999 agreement between the UAE and India related to cooperation in civil and commercial matters.

. Indian expatriates in the UAE would no longer be able to seek safe haven in their home country if they are convicted in a civil case in the UAE.

WESP 2020

◉ **CONTEXT**

- **Department of Economic and Social Affairs of the United Nations recently released a publication titled 'World Economic Situation and Prospects (WESP) 2020'.**

◉ **ABOUT**

- According to the **United Nations World Economic Situation and Prospects (WESP) 2020,** impacted by prolonged **trade disputes**, the global economy suffered its **lowest growth in a decade,** slipping to **2.3 per cent in 2019.**

. **Economic Forecast:** The Report states that growth of **2.5 per cent in 2020 is possible**, but trade tensions, financial turmoil, or an escalation of geopolitical tensions could derail a recovery.

  œ In a **downside scenario**, global growth can slow to **just 1.8 per cent** this year.

. **Risks:** Prolonged **weakness in global economic activity** may cause significant setbacks for **sustainable development**, including the goals to eradicate **poverty** and create **decent jobs** for all.

  œ Pervasive **inequalities** and deepening **climate crisis** are fuelling growing **discontent** in many parts of the world.

. **State of emerging economies:** Growth in large emerging countries, like Brazil, India, Mexico, the Russian Federation and Turkey, is expected to gain some momentum in 2020; while progress towards **higher living standards has stalled** for many.

. **Commodity price downturn:** Many countries around the world are still ailing from effects of the commodity price downturn **of 2014-16**, which resulted in persistent **output losses** and **setbacks in poverty reduction**.

  œ In one-third of commodity-dependent developing countries (home to 870 million people), average real incomes are lower today than they were in 2014.

  œ This includes several large countries such as Angola, Argentina, Brazil, Nigeria, Saudi Arabia and South Africa.

. **Poverty:** The number of people living in extreme poverty has risen in several sub-Saharan African countries and in parts of Latin America and Western Asia.

United States

. Recent **interest rate cuts** by the US Federal Reserve may support to **economic activity.**

. However, given persistent policy uncertainty, **weak business confidence** and **waning fiscal stimulus**, GDP growth in United States is **forecast** to slow from 2.2 per cent in 2019 to 1.7 per cent in 2020.

European Union

. In European Union, manufacturing will continue to be held back by **global uncertainty**, but this will be partially offset by steady **growth in private consumption**, allowing a **modest rise in GDP growth** from 1.4 per cent in 2019 to 1.6 per cent in 2020.

East Asia

. East Asia remains the **world's fastest growing region** and the l**argest contributor to global growth.**

. Supported by more **accommodative monetary and fiscal policies, in China**, GDP growth is projected to moderate gradually from 6.1 per cent in 2019 to **6.0 per cent in 2020** and 5.9 per cent in 2021.

Africa

. Africa has experienced a **decade of near stagnation in per capita GDP.**

. The number of people living in **extreme poverty** has risen in several **sub-Saharan Africa.**

. UN estimates indicate that to eradicate poverty in much of Africa, annual per capita growth of **over 8 per cent would be needed**, compared to just 0.5 per cent average rate over the past decade.

South Asia

. **Slow growth:** Regional GDP growth fell faster than the global average, **dropping from 5.6 per cent in 2018 to 3.3 per cent in 2019**, but was moderated by strong growth in Bangladesh, Bhutan, Maldives and Nepal.

. **Reasons:** Prospects for some countries in the region are dampened by **political uncertainty**, **extreme weather events, commodity price fluctuations and growing security concern**s—and their negative impact on **investment and consumer sentiment;**

. **Problem countries:** The economic slump in **India,** the deepening recession in the **Islamic Republic of Iran,** and the looming twin fiscal and balance-of-payments crises in **Pakistan** have affected the outlook for many of the smaller economies in the region.

. **Recovery:** Economic growth is expected to recover as one-off factors wane and fiscal stimulus kicks in.

GDP – not an adequate measure

. Headline **GDP growth misses' crucial aspects** of sustainability and well-being.

. Beyond GDP growth, other measures of well-being paint an even bleaker picture in several parts of the world.

. Policymakers should **move beyond a narrow focus on merely promoting GDP growth**, and instead aim to enhance well-being in all parts of society.

. This requires **prioritizing investment in sustainable development projects** to promote education, renewable energy, and resilient infrastructure.

Dealing with the climate crisis

. The **climate crisis**, persistently **high inequalities**, and rising levels of **food insecurity and undernourishment** continue to affect the quality of life in many societies.

. If per capita emissions in developing countries were to rise towards those in developed economies, global carbon emissions would increase by more than **250 per cent** – compared to the global goal of reaching net zero emissions by 2050.

. **Shift energy mix:** Compounding economic slowdown, rising global temperatures and increasing frequency and intensity of weather-related shocks there is urgent need for dramatic shift in the global energy mix.

. This will require massive adjustments in the **energy sector,** which currently account for about **three-quarters of global greenhouse gas emissions.**

Need for a more balanced policy mix

. **Revisiting reliance on monetary policy:** Overreliance on monetary policy is not just insufficient to revive growth; it also entails significant costs, including the exacerbation of financial stability risks.

. **Balanced mix:** A more balanced policy mix is needed, one that stimulates economic growth while moving towards greater social inclusion, gender equality, and environmentally sustainable production.

IN ECONOMIST'S DEMOCRACY INDEX, INDIA AT ITS LOWEST RANKING EVER

◉ **CONTEXT**

- **India slipped 10 places to 51st position in the latest Democracy Index global rankings published by The Economist Intelligence Unit.**
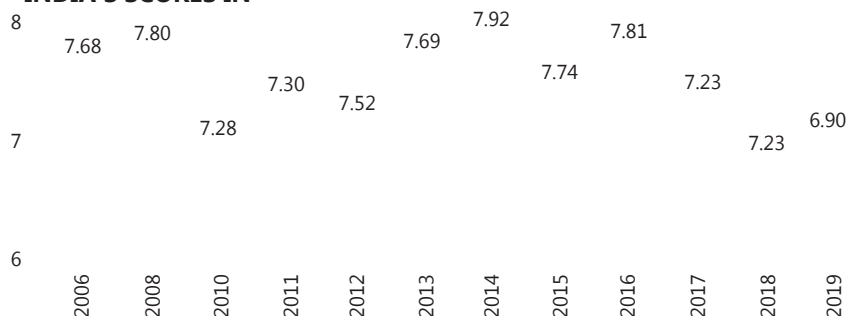
◉ **ABOUT**

- The score, down from 7.23 in 2018 to 6.90 in 2019, is its lowest ever since the Democracy Index was begun in 2006.
- The report ranks 165 independent states and two territories, covering almost the entire population of the world.

Major causes for decline in the rank

- The primary cause of the democratic regression was an erosion of civil liberties in the country.
- It mentioned the stripping of Jammu and Kashmir's special status with the repeal of Articles 370 and 35A, the various security measures that followed the bifurcation of the state including restriction of Internet access, and the exclusion of 1.9 million people from the final NRC (National Register of Citizens) in Assam.
- "Civil liberties" is one of five categories on which the Democracy Index is based.
- The other four are electoral process and pluralism; functioning of government; political participation; and political culture.
- On a scale of 0 to 10, India's scores were 8.67 in electoral process and pluralism, 6.79 in functioning of government; 6.67 in political participation; 5.63 in political culture; and 6.76 in civil liberties.

In Economist's Democracy Index, India at its lowest

INDIA'S SCORES IN

Source: Economist Intelligence Unit

Calculation methods and other major outcomes

- Based on the total score, countries are classified as
  - œ "full democracy" (scores greater than 8);
  - œ "flawed democracy" (greater than 6 and up to 8);
  - œ "hybrid regime" (greater than 4 and up to 6); or
  - œ "authoritarian regime" (less than or equal to 4).
- India's score of 7.23 places it in the "flawed democracy" category, which also includes Bangladesh (5.88).
- Pakistan, with a score of 4.25, is categorised as a "hybrid democracy"

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. China (2.26) and North Korea (bottom-ranked with 1.08) are categorised as "authoritarian regimes"

. Norway (top-ranked with 9.87) is counted as a "full democracy".

. Following Norway at the top of the rankings are Iceland (9.58), Sweden (9.39) and New Zealand (9.26).

. Other "full democracies" include Germany, the United Kingdom and France.

. The United States, with a score of 7.96 that is just below the benchmark for a "full democracy", is a "flawed democracy", in the same category as India.

SELECTED COUNTRIES 2019		
Country	Score	Rank
Norway	9.87	1
Ice land	9.58	2
Sweden	9.39	3
New Zealand	9.26	4
Germany	8.68	13
UK	8.52	14
France	8.12	20
United States	7.96	25
Israel	7.86	28
India	6.90	51
Brazil	6.86	52
Sri Lanka	6.27	69
Bangladesh	5.88	92
Nepal	5.28	92
Pakistan	4.25	108
Myanmar	3.55	122
Russia	3.11	134

NEW MOEF GUIDELINES FOR ELEPHANT DEATHS FROM ANTHRAX

◉ **CONTEXT**

• **The Indian government's Ministry of Environment, Forest and Climate Change (MoEFCC) has come out with a standard operating procedure (SOP) to handle elephant deaths caused or suspected to have been caused, by anthrax.**

What is Anthrax?

. Anthrax is an "**acute widespread infectious disease**" caused by gram-positive, rod-shaped bacteria known as Bacillus anthracis.

. It can be found naturally in soil. Animals can become infected when they come in contact with contaminated soil, plants, or water.

. Animals like goats, horses, pigs may get the infection as well and because it is a **zoonotic disease**, humans can get the infection through infected cattle.

. The disease is found in all parts of the world and, in India, it occurs countrywide. Some districts are even considered as anthrax districts (anthrax belts).

- It is usually found in animals in southern Indian states and is less frequent to absent in the northern Indian States.
- In the past years, the anthrax cases have been reported from Andhra Pradesh, Jammu and Kashmir, Tamil Nadu, Odisha and Karnataka.
- Regarding susceptibility, no mammals have absolute natural immunity against anthrax but the most susceptible animals are cattle and sheep, followed by horse and pig.
- The disease has also been reported amongst camels and elephants in the country.

Types of Anthrax:

- **Cutaneous, or skin, anthrax**: It is the most common form. It is usually contracted when a person with a break in their skin, such as a cut or abrasion, comes into direct contact with anthrax spores.
- **Gastrointestinal anthrax:** It is caught from eating meat from an infected animal. It causes initial symptoms similar to food poisoning but these can worsen to produce severe abdominal pain, vomiting of blood and severe diarrhoea.
- **Inhalation or pulmonary anthrax:** It is the most severe form of human anthrax. Though the rarest, it is the form of human anthrax causing the most current concern. It is caused when a person is directly exposed to a large number of anthrax spores suspended in the air and breathes them in.

Key-highlights of the guidelines:

- Latest guidelines released by the environment ministry however, advise against burying of carcass suspected with anthrax, an infectious disease found primarily in animals.
- The SOP also lays down rules for the constitution of a team to oversee assessment and disposal of elephant carcasses suspected to be infected with anthrax.
- The SOP called for the complete burning of carcasses of animals suspected of dying due to anthrax and complete sanitisation of the area to prevent its further spread.
- The SOP, aimed at preventing an outbreak of the infection among captive or wild elephants and other wildlife, cautioned that while disposing of the carcasses of animals in all anthrax/suspected anthrax cases, the "carcass should be burnt completely and under no circumstance be buried" to prevent further spread of the disease.
- The overall authority responsible at the state level under the SOP's provisions will be the chief wildlife warden, in accordance with the Wildlife (Protection) Act, 1972.
- The procedure will also have steps to assess whether the elephant died due to anthrax and the collection of biological samples. A map of anthrax hotspots is to be created as well.
- Recently, a four-year-old elephant suspected to have died due to anthrax was found in Sambalpur in Odisha.
- The population of the elephant, India's national heritage animal, as per the last elephant estimation in 2017, is 29,964.

Why Anthrax is dangerous?

- Anthrax outbreak is a particularly dangerous disease because it can quickly spread to other animals.
- It is an effective agent for a bioterrorist attack as it:
  - œ is easily found in nature
  - œ can be produced in a lab
  - œ can last for a long time without stringent storage conditions.
  - œ can be easily released
- Anthrax spores are microscopic. They might not be noticeable by taste, smell, or sight.

. Infected animals shed the bacilli in terminal haemorrhage or spilt blood at death. Anthrax spores can persist in soil for many years.

How does Government deal with such diseases?

. The central government's department of animal husbandry and dairying implements a centrally sponsored scheme 'Livestock Health & Disease Control (LH&DC)' to focus on controlling and containment of economically important animal diseases.

. Under this scheme, vaccination is carried out for control of diseases like anthrax as well as Foot and Mouth Disease (FMD), Peste des Petits Ruminants (PPR), Brucellosis, Hemorrhagic Septicemia (HS), Black Quarter (BQ), Classical Swine Fever, Ranikhet disease, etc.

THREE CAPITALS FOR ANDHRA PRADESH — IT'S LOGIC AND THE QUESTIONS IT RAISES

◉ **CONTEXT**

• **The Andhra Pradesh Assembly has passed 'The Andhra Pradesh Decentralization and Equal Development of All Regions Bill, 2020', paving the way for three capitals for the State.**

◉ **BACKGROUND**

• After a long fight for independence eventually on October 1, 1953, 11 districts of the then Madras State became the State of Andhra Pradesh with Kurnool as the capital.

. Finally, on November 1, 1956, Andhra Pradesh emerged as the first linguistic state. The erstwhile State of Andhra was united with the Telangana region of the state of Hyderabad.

. With the enactment of the Andhra Pradesh Reorganization Act, 2014, Andhra Pradesh was divided into two states:

œ State of Andhra Pradesh

œ State of Telangana

. The Act came into effect from June 2, 2014, it also had a provision for separate High Courts for State of Telangana and State of Andhra Pradesh.

. Hyderabad, which was the capital of the erstwhile state of Andhra Pradesh is now part of Telangana and has become its capital.

> . The state of Andhra Pradesh traces its history and origin back to the 5th century BC when Kuberaka had a kingdom in the coastal Andhra.
>
> . In the 4th century BC, the Mauryans extended their kingdom to rule over this oldest kingdom in South India.
>
> . In the 3rd century BC, the Mauryan Empire was declined when Andhra Satavahanas arrived on the scene.
>
> . With the fall of Satavahanas in 220 CE, the state was ruled by many rulers including Ikshvakus, Pallavas, Vishnukundinas, Anandagotrikas and Cholas.
>
> . During the rule of Renati Cholas, in the 5th century CE, Telugu emerged as a popular medium of communication. In the reigning period of Vishnukundina Kings, Telugu was accredited to be the official language of the state.
>
> . By the 12th and 13th centuries CE, Chalukyan influence was undermined with the incursion of Kakatiya dynasty.

. In 1323 CE, Ghiaz-ud-din Tughlaq captured Warangal, with the assistance of Ulugh Khan. Once again, Warangal came under the control of Musunuri Nayaks, who ruled it for over 50 years. Alla-ud-din Hasan Gangu established an independent Muslim state (Bahmani kingdom) in 1347 CE to revolt against the Delhi Sultanate. For about 200 years, the Qutb Shahi dynasty ruled over the Andhra kingdom.

. The Northern Circars became an element of the British Madras Presidency in colonial India. Soon after the surrender of five territories to the British by the Nizam, a region emerged by the name of Rayalaseema. The Nizams still controlled the princely state of Hyderabad. In 1947, India became free from the clutches of the British. The Muslim Nizam of Hyderabad preferred to be independent of India; however, Hyderabad was enforced to become part of the Republic of India in 1948.

⦿ **ANALYSIS**

- **The Three new capitals:**

. The three new capitals of Andhra Pradesh will be:

  œ Amaravati will now be only the legislative capital

  œ Visakhapatnam will be the executive capital

  œ Kurnool will be the judicial capital

. Executive capital Visakhapatnam is 700 km from judicial capital Kurnool, and 400 km from legislative capital Amaravati. The Amaravati-Kurnool distance is 370 km.

Is it new for India?

. The concept of having more than one capital is not new in India.

. In Rajasthan, the high court is located in Jodhpur, and not in the capital city of Jaipur.

. Even Maharashtra has summer and winter capitals (Mumbai and Nagpur).

. Himachal Pradesh has capitals at Shimla and Dharamshala, while the former state of Jammu and Kashmir had Srinagar and Jammu as capitals.

. However, in Uttarakhand, 5 governments in 19 yrs failed to decide where the capital should be. It holds a unique distinction in Independent India's history of being the only state with no permanent capital.

Parliament VS State: Who has the power to decide?

. Article 2 and Article 3 of the Constitution of India confer exclusive and plenary powers upon Parliament to form or establish or completely alter and destroy the identity of the existing state.

. It is within the exclusive domain of Parliament to form any state, set boundaries, and name a state, set boundaries, and name a state in the Union as defined in Article 1 of the Constitution.

. The power to establish a state's capital is inherent to, and inseparable from, the power conferred upon Parliament under Articles, 2, 3 and 4 of the Constitution of India.

. The matter of establishing the capital of a new state formed by Parliament by law is not covered by any Entry in List-II of the Schedule-VII of the Constitution.

. It is specifically because the capital of a state shall foster the needs of all sections of the society of the state without any political discrimination as to the development of a particular region of such a state.

. Therefore, only the Indian Parliament can, by law, establish the capital of a newly reconstituted state, which after reconstitution and reorganization by enacting a law, under Article 3(a)(c)(d) of the Constitution.

. The current proposal of three capitals in the state has not received the consent of the central government.

The idea of "decentralization":

. The first reference of decentralisation was made in the **Sri Bagh pact**, which was signed by the then political leaders from Coastal Andhra and Rayalaseema on November 16, 1937.

. According to the pact, for a balanced decentralisation, it was decided to continue with Andhra University in Visakhapatnam and the High Court and the capital be divided between the two regions.

. Decentralisation was the central theme in recommendations of all major committees that were set up to suggest a suitable location for the capital of Andhra Pradesh.

œ **G N Rao Committee**: A Committee constituted under former IAS officer G N Rao, in its December 2019 report, recommended three capitals for balanced growth, and four regional commissioners along the lines of Karnataka.

œ **BCG recommendation:** The global management consulting firm Boston Consultancy Group, on January 3, 2020, recommended that Visakhapatnam should be the seat of the Governor, Chief Minister, and all government departments, and a High Court Bench, and have provisions for a Legislative Assembly for use in an emergency; Vijayawada/Amaravati should have the Assembly and a High Court Bench; Kurnool should have the High Court and tribunals.

œ **High-powered Committee:** A high-power Committee appointed to study the recommendations of the G N Rao Committee and the BCG suggested that the state should be demarcated into zones with separate zonal planning and development boards in order to ensure inclusive development and that infrastructure projects focussed Rayalaseema and North Coastal Andhra should be prioritised.

Why would Andhra Pradesh need three capitals?

. **Positive side:**

œ The state government claims that it would allow an even development of the state. It would ensure justice to everyone and every region.

œ It also claims it's a good idea to decentralise power across the state as there have been several imbalances among the regions which had often led to agitations. Three capitals will lead to equitable development.

œ Furthermore, it would be a boost to urbanisation and then economic development. In India, cities contribute anywhere between 59% and 70% of the GDP.

. **Negative side:**

œ Andhra Pradesh has shrunk in size after Telangana was carved out of it in 2014, and it's hard to see how having government functions sprawled across three locations would lend itself to efficient governance.

œ Its immediate effect, though, would mostly be an artificial spike in real estate prices in the two new proposed capital regions, and land sharks would move into part people from their land before the state turns up with offers.

œ Instead of pursuing experiments of this sort, the state should dedicate itself to fulfilling the aspirations of its people. Assuredly, a single capital would be good enough.

However, the idea of three capitals can also restore regional balance in governance. But the state needs to have an effective plan for coordination among all sector and especially the three institutes of the democracy as the three pillars cannot operate from far away places.

WHAT IS ENEMY PROPERTY IN INDIA, AND HOW HAS THE GOVERNMENT DEALT WITH IT?

◉ **CONTEXT**

- **A Group of Ministers (GoM) headed by Union Home Minister will monitor the disposal of over 9,400 enemy properties, which the government estimates is worth about Rs 1 lakh crore.**

◉ **ABOUT**

- In the wake of the India-Pakistan wars of 1965 and 1971, there was migration of people from India to Pakistan.

. Under the Defence of India Rules framed under The Defence of India Act, 1962, the Government of India took over the properties and companies of those who took Pakistani nationality.

. The same was done for property left behind by those who went to China after the 1962 Sino-Indian war.

. The Tashkent Declaration of January 10, 1966 included a clause that said India and Pakistan would discuss the return of the property and assets taken over by either side in connection with the conflict.

. However, the Government of Pakistan disposed of all such properties in their country in the year 1971 itself.

How did India deal with enemy property?

. The Enemy Property Act, enacted in 1968, provided for the continuous vesting of enemy property in the Custodian of Enemy Property for India.

. Some movable properties too, are categorised as enemy properties.

. In 2017, Parliament passed The Enemy Property (Amendment and Validation) Bill, 2016, which amended The Enemy Property Act, 1968, and The Public Premises (Eviction of Unauthorised Occupants) Act, 1971.

. The amended Act expanded the definition of the term "enemy subject", and "enemy firm" to include the legal heir and successor of an enemy, whether a citizen of India or a citizen of a country which is not an enemy; and the succeeding firm of an enemy firm, irrespective of the nationality of its members or partners.

. The Custodian, with prior approval of the central government, may dispose of enemy properties vested in him in accordance with the provisions of the Act, and the government may issue directions to the Custodian for this purpose.

Which state has the highest number of such properties?

. Together UP and West Bengal have over 80% of these immovable properties. Over 98% of it belongs to Pakistani nationals

Is it the first time such a rule is being enacted in India?

. No. After the beginning of the Second World War the British had enacted a Defence of India Act in 1939.

. Under this Act Germany, Italy and Japan were declared enemy countries and similar measures were adopted so their citizens should not be allowed to have any financial gain from India.

. After Independence, the Act was abrogated as the Indian government did not identify these countries as India's enemy.

Why were these amendments brought?

. The thrust of the amendments was to guard against claims of succession or transfer of properties left by people who migrated to Pakistan and China after the wars.

. The amendments denied legal heirs any right over enemy property.

. The main aim was to negate the effect of a court judgment in this regard.

. The statement of objects and reasons in the Bill said: "Of late, there have been various judgments by various courts that have adversely affected the powers of the Custodian and the Government of India as provided under the Enemy Property Act, 1968.

. In view of such interpretation by various courts, the Custodian is finding it difficult to sustain his actions under the Enemy Property Act, 1968."

CENTRE OF EXCELLENCE IN BLOCKCHAIN TECHNOLOGY

◉ **CONTEXT**

• **The National Informatics Centre (NIC) has set up the Centre of Excellence (CoE) in Blockchain Technology in Bengaluru, Karnataka, aiming to provide Blockchain as a service and allowing all stakeholders to benefit from shared learning, experiences and resources.**

About the Centre of Excellence:

. The Centre of Excellence aims to facilitate the Government Departments in building proof of concepts for use of Blockchain technology in different dimensions of governance leading to large scale deployment of some such applications.

. The CoE has developed Blockchain-based **Proof of Concepts (PoCs)** for select government use cases to understand the potential benefits provided by this emerging technology.

. It will provide world-class blockchain services to the government by identifying and sharing suitable data for the use of government departments.

. New and previously unforeseen applications of Blockchain in the Government are expected to enhance transparency, traceability and trust in e-governance systems.

. With National Informatics Centre (NIC) providing a robust and agile infrastructure, the CoE shall also provide Blockchain as a Service (BaaS) for efficient hosting of Blockchain network.

. Apart from CoE in Bengaluru, the govt is also planning to launch another CoE for blockchain technology in **Gurugram**, Haryana also.

> National Informatics Centre (NIC), established in 1976, has emerged as a promoter of digital opportunities for sustainable development. It functions under the Ministry of Electronics & Information Technology. NIC spearheaded "Informatics-Led-Development" by implementing ICT applications in social and public administration and facilitates electronic delivery of services to the government (G2G), business (G2B), citizen (G2C) and government employee (G2E).

Understanding blockchain:

. A blockchain is, in the simplest of terms, a time-stamped series of immutable records of data that is managed by a cluster of computers not owned by any single entity.

. Each digital record or transaction in the thread is called a block (hence the name), and it allows either an open or controlled set of users to participate in the electronic ledger. Each block is linked to a specific participant.

. The following features make the revolutionary technology of blockchain stand out:

œ Decentralised

œ Peer-to-Peer Network

œ Immutable

œ Tamper-Proof

Significance of the initiative:

. **Knowledge enrichment:** The Centre of Excellence (CoE) will share its blockchain-based proof of concepts with selected government entities. This way, it will help different wings of the government to understand the potential of the technology.

. **Better hosting of networks:** With the enhanced infrastructure provided by NIC, the CoE will additionally offer Blockchain-as-a-Service (BaaS) for better hosting of Blockchain network.

. **Smooth implementation of policies:** Blockchain technology is upcoming & niche technology and adoption of the same in sectors such as health, finance, agriculture and various other sectors would aid the government in implementing various programmes and provide trust and immutability to the assets.

. **Transparency & trust:** The applications of blockchain in the public sector will increase transparency, traceability and trust in e-governance systems.

. **Effective e-governance service:** The Centre would help to bring a revolutionary change in the lives of the people by delivering e-governance services effectively through the data-centric model.

WHY PUNE-MUMBAI HYPER LOOP MAY BE SCRAPPED

◉ **CONTEXT**

• **The proposed Pune-Mumbai Hyper loop project, an ultra-modern transport system that will reduce the travelling time between the two cities to 25 minutes from 2.5-3 hours, may be scrapped by the state government.**

◉ **ABOUT**

What is the Hyper loop technology?

. In 2012, Elon Musk, co-founder of Tesla, Inc and several other firms, unveiled his vision of the new transport system, which he called a 'Hyper loop'.

. It is envisioned as a transport system which would never crash and would be immune to weather's vagaries.

. It would also be thrice or four times as fast as a bullet train, with an average speed that would be twice of an aircraft.

. It could be passenger-packed pods which would travel through long tubes at 1,220 km/h, using solar energy.

. The Hyper loop project could be the right solution for high-traffic city pairs which are about 1,500 km apart.

. The high speed is achieved as the pods, which carry passengers, move using magnetic levitation.

. The speed increases further due to the near-vacuum conditions inside the tubes, which reduce resistance to the pod as it travels within the tube.

How was Pune-Mumbai Hyerloop envisaged?

. Hyperloop connectivity in Maharashtra between central Pune and the Navi Mumbai airport was announced in 2018.

. The responsibility of the project was given to the Pune Metropolitan Region Development Authority (PMRDA).

Which other cities are exploring a Hyperloop?

. Currently, nine companies are working on the technology, and they have announced construction of test tracks as well as intercity transport systems in various parts of the world.

. Prominent among these companies are US-based Virgin Hyperloop One, Hyperloop Transportation Technologies and Canada-based TransPod. An Indian company, called the DGWHyperloop India, has also entered the arena.

. Various companies have announced a number of routes, with the leading projects being the Pune-Mumbai hyperloop, one connecting Los Angeles and San Francisco, one between Abu Dhabi and Al Ain, another from Amravati to Vijayawada, a track connecting Missouri's largest cities including St Louis, Kansas City and Columbia, and several routes in Canada including Toronto-Montreal, Toronto-Windsor and Calgary-Edmonton.

. The Hyperloop project has not been undertaken anywhere in the world.

Benefits or advantages of Hyperloop Technology

. The technology offers very fast speed of transportation which is twice that of aircraft.

. It has very low power consumption.

. It is low cost transportation system on long run.

. It is immune to bad weather conditions.

. It is resistant to earthquakes.

. It is safe mode of transportation system.

. Uses Solar Energy for power

. In the event of equipment or electrical failure, the system comes to a stop (does not fall from the sky).

. Automation reduces the risk of human error

Challenges or disadvantages of Hyperloop Technology

. High speed of capsule (almost at speed of sound) may cause dizziness to the passengers travelling due to vibration and jostling.

. Initial cost of investment to have the system in place is very high. The long vacuum chamber manufacturing requires more technical skills. Moreover this is costly and also risky to maintain.

. Land use rights will be concern for deployment of the project.

. It has very high risk to life when something wrong happens to the system.

. It has limited space in the train and hence people cannot move freely.

. As hyperloop uses steel for track, it expands and changes shape when outside temperature is changed. This may destroy the track of hyperloop technology. This needs to be considered while designing the system based on environment of the location where it is being deployed.

. The installation requires cutting of large number of trees. This leads to environment loss.

. It is an Unproven system yet.

GLOBAL SOCIAL MOBILITY INDEX

⊙ **CONTEXT**   • **The World Economic Forum has created a new index to measure social mobility. It came out with its first-ever Global Social Mobility Report.**

⊙ **ABOUT**
- World Economic Forum (WEF) released 1st edition of a report titled "**The Global Social Mobility Report 2020:** Equality, Opportunity and a New Economic Imperative".
- The **global social mobility index (GSMI)** of 82 countries was launched in this report.
- As per the Index, **India ranked at the 76th position** with a score of 42.7, while **Denmark topped the list**.
- **Global social mobility index:** The GSMI focuses on drivers of relative social mobility instead of outcomes.

  œ It looks at policies, practices and institutions.

  œ This allows it to enable effective comparisons throughout regions and generations.

  œ It uses 10 pillars, which in turn are broken down into five determinants of social mobility – health, education, technology access, work opportunities, working conditions and fair wages and finally, social protection and inclusive institutions.

- **World Economic Forum:** WEF is based in Cologny-Geneva, Switzerland. It is an NGO, founded in 1971 by Klaus Schwab. It is a membership-based organization of the world's largest corporations. It hosts annual meeting at the end of January in Davos.

  œ **Mission:** "Committed to improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas".

  œ **European Management Forum**: WEF was first named the European Management Forum, and the name was changed in 1987 when it broadened its vision to include a platform for resolving international conflicts.

Social Mobility

- **Absolute social mobility**: Social mobility can be understood as the movement in personal circumstances either "upwards" or "downwards" of an individual in relation to those of their parents.

  œ In absolute terms, it is the ability of a child to experience a better life than their parents.

- **Relative social mobility**: On the other hand, relative social mobility is an assessment of the impact of socio-economic background on an individual's outcomes in life.

  œ It can be measured against a number of outcomes ranging from health to educational achievement and income.

Fact findings

- GSMI there are **only a handful of nations with the right conditions** to foster social mobility.
- **Drag on social mobility:** Most countries underperform in four areas- fair wages, social protection, working conditions and lifelong learning.
- **Rapid growth countries not immune**: Inequalities are rising even in countries that have experienced rapid growth.
- **Nordic countries top the list: Denmark** tops the rankings with a social mobility score of 85.2, closely followed by **Finland** (83.6), **Norway** (83.6), **Sweden** (83.5) and **Iceland (**82.7).
- **G7 countries:** Among the G7 economies, **Germany** is the most socially mobile, ranking 11th with 78 points followed by **France** in 12th position. **Canada** ranks 14th followed by **Japan** (15th), the **United Kingdom** (21st), the **United States** (27th) and **Italy** (34th).
- **Emerging economies:** Among the world's large emerging economies, the **Russian Federation** is the most socially mobile of the BRICS grouping, ranking 39th with a score of 64 points. Next is **China**, which ranks 45th, followed by **Brazil** (60th), **India** (76th) and **South Africa** (77th).
- **Wage disparities:** In the US, the top 1% of income earners in 2018 earned 158% more than in 1979, in comparison to just 24% for the bottom 90%.

India findings

- India ranks **76th out of 82 economies**.
- It ranks **41st** in lifelong learning and **53rd** in working conditions.
- India is among the five countries that **stand to gain the most from a better social mobility** score (China, the United States, India, Japan and Germany).
- **Areas of improvement** for India include social protection (76th) and fair wage distribution (79th).

Key findings

- **Driver of income equality:** Upward social mobility is a key driver of income equality. Increasing social mobility by 10 per cent would benefit social cohesion and boost the world's economies by nearly 5 per cent by 2030.
- **Historical inequalities:** Children who are born into less affluent families typically experience greater barriers to success.
  - œ Problem is not only for the individual, but also society and the economy.
  - œ **Human capital** is the driving force of economic growth.
  - œ As a result, anything that undermines the best allocation of talent and impedes the accumulation of human capital may significantly hamper growth.
- **Five key dimensions:** Measuring countries across five key dimensions distributed over 10 pillars – health; education (access, quality and equity); technology; work (opportunities, wages, conditions); and protections and institutions (social protection and inclusive institutions) .
- **Fourth Industrial Revolution:** Globalization and the Fourth Industrial Revolution have generated significant benefits, but have also exacerbated inequalities.
  - œ **Continuing disruption to labour markets**, will likely compound differences in social mobility for those countries unprepared to take advantage of new opportunities.
  - œ **Declining income share of labour** relative to an increase in the income share of capital has significantly driven economic inequality.
  - œ **Wage disparities** have grown exponentially since the 1970s.
- **Globalization:** Globalisation has increased inequalities within countries by transferring low-skilled jobs in high-productivity sectors in high-income economies to lower-income counterparts. This has effectively penalized workers in specific locations and types of job.
- **Technology:** Technology has polarized inequalities by reducing demand for low-skilled jobs while rewarding highly skilled jobs disproportionately.
  - œ **"Superstar" firms** have exacerbated this polarisation. They have high profits and a low share of labour, and as models of great productivity, have come to increasingly dominate markets.

Recommendations

- There is need for a new standard which could be used to identify priority **policy actions and business practices** that would improve social mobility.
- Achieving higher levels of social mobility needs to be perceived as an important element of a wider move towards a **stakeholder-based model of capitalism**.
- **"Digital leapfrogging"** will not happen unless the issues are systemically addressed. Technology has the potential to equalize barriers to entry to knowledge, but only if the conditions are conducive.
- **Governments must play the role of equalizer**, levelling the playing field for all citizens, regardless of their socio-economic background. It must develop a new social protection contract which would offer holistic protection to all workers irrespective of their employment status, particularly in a context of technological change and industry transitions.

œ Create new financing model for social mobility.

œ Improving tax progressivity on personal income.

œ Formulate policies that address wealth concentration.

œ Re-balance sources of taxation which support the social mobility agenda.

œ Public spending and policy incentives must put greater emphasis on social spending.

œ More support for education and lifelong learning.

œ Targeted improvements in the availability, quality and distribution of education.

œ Promoting skills development throughout an individual's working life.

œ New approach to jointly finance efforts between the public and private sector.

. **Businesses must place purpose over profits** to perform better in the long term. Companies face equal risks from system challenges, including inequality. Paying fair wages and eliminating the gender pay gap will be crucial to boost social mobility.

œ Businesses must take the lead by promoting a culture of meritocracy.

œ Companies must create action plans specific to each industry.

LOCUST ATTACKS

◉ **CONTEXT**

• **Recently, locust attacks emanating from the desert area in Pakistan have struck parts of Rajasthan and Gujarat, causing heavy damage to standing crop.**

◉ **ABOUT**

• **Locusts,** which are part of the grasshopper family, are **highly mobile insects** that can migrate across different countries and cause extreme damage to crops.

. India has suffered the **biggest Locust Attack in 25 Years**, which is not fully controlled yet.
   œ **History:** Although no locust plague cycles have been observed after 1962, during 1978 and 1993, large scale attacks were reported.
   œ This year the first locust swarms left to **Yemen, Saudi Arabia, and south-west Iran.**
   œ The locust department in India has blamed Pakistan for this year's attack, saying it failed to conduct control operations successfully.

. **Crop damage**: Estimates say crops were affected in more than 3.5 lakh hectares in districts of Rajasthan and Gujarat.
   œ Crops of **mustard, cumin and wheat** have been most damaged.
   œ Farmers whose crop was damaged would be **entitled to compensation**.

. **Measures India has taken**: India has a locust control and research scheme that is being implemented through the **Locust Warning Organisation (LWO),** established in 1939 and amalgamated in 1946 with the Directorate of Plant Protection Quarantine and Storage (PPQS) of the Ministry of Agriculture.
   œ LWO's responsibility is monitoring and control of the locust situation in Scheduled Desert Areas, mainly in Rajasthan and Gujarat, and partly in Punjab and Haryana.

. **International measures**: **Food and Agriculture Organisation (FAO)** of the United Nations is the international agency that monitors and manages locust invasions.
   œ All locust-affected countries transmit data about attacks to the FAO.
   œ FAO also provides forecasts for locust attacks up to six weeks in advance and issues warnings for each country.

Locust facts

. **From grasshopper family:** Locusts are a group of **short-horned grasshoppers**. The word "locust" is derived from the Vulgar Latin *locusta,* meaning grasshopper.

. **Polyphagous feeder:** Locusts can **eat a large variety of plants.** A small swarm of the desert locust, which contains about 40 million insects, can eat on average as much food in one day as about 10 elephants, 25 camels or 2,500 people.

. **Migratory:** Adult locust swarms can fly up to 150 km a day with the wind. They migrate long distances in destructive swarms.

. **High breeding:** Under suitable conditions of drought followed by rapid vegetation growth, serotonin in their brains triggers a dramatic set of changes and they start to breed abundantly.

 œ Each locust lays about 150 eggs. They multiply in numbers, and they lay eggs only in **moist soil.**

 œ They form bands of wingless nymphs which later become swarms of winged adults.

. **Origin:** The swarms usually originate in the **Arabian Peninsula and the Horn of Africa**.

. **Indian locusts:** Only four species of locusts are found in India.

 œ Desert locust (Schistocerca gregaria) - regarded as the most important in India as well as internationally.

 œ Migratory locust (Locusta migratoria)

 œ Bombay Locust (Nomadacris succincta)

 œ Tree locust (Anacridium sp.)

. **Destroy plants:** The swarms devour leaves, flowers, fruits, seeds, bark and growing points, and also destroy plants by their **sheer weight** as they descend on them in massive numbers.

. **Risk:** India is most at risk of a swarm invasion just before the **onset of the monsoon.**

 œ This year the extended monsoon provided a favourable environment for the locusts to multiply.

. **Plagued history:** Swarms have devastated crops and been a contributory cause of famines and human migrations since prehistory. The **ancient Egyptians** carved them on their tombs and the insects are mentioned in the **Iliad, the Bible** and the Quran.

. **Locust control:** To control locust swarms, a chemical called **organophosphate** is sprayed in small, concentrated doses.

SAMAGRA SHIKSHA ABHIYAN

◉ **CONTEXT**

• **Union Budget 2018-19 proposed to treat school education holistically without segmentation from pre-nursery to Class 12; called 'Samagra Shiksha'.**

◉ **ABOUT**

• **Samagra Shiksha:** Samagra Shiksha is an **overarching programme for school education sector** extending from pre-school to class 12. It is 'an integrated scheme for school education'.

. **Precedent:** The Samagra Shiksha programme replaced/includes **three former schemes** of Central Government, namely:

 œ Sarva Shiksha Abhiyan (SSA)

 œ Teacher Education (TE)

œ Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

. **Implementing agency**: The Scheme will be implemented through a single **State Implementation Society (SIS)** at the State/UT level.

   œ At the National level, there would be a **Governing Council** headed by Minister of Human Resource Development and a Project Approval Board (PAB) headed by Secretary, Department of School Education and Literacy.

   œ The Governing Council will be empowered to modify financial and programmatic norms

. **Aim**: It was prepared with the broader goal of **improving school effectiveness** measured in terms of equal opportunities for schooling and equitable learning outcomes.

. **Outcomes**: Main outcomes of the Scheme are envisaged as Universal Access, Equity and Quality, promoting Vocationalisation of Education, and strengthening of Teacher Education Institutions (TEIs).

. **IMPART**: IMPART is an initiative under the Samagra Shiksha Abhiyan that was implemented for the first time this year, IMPART focuses on making education more a fun activity rather than a mere textbook learning.

Samagra Shiksha Abhiyan

. **Samagra Shiksha** is a sector-wide development programme/scheme.

. **Comprehensive:** It provides a comprehensive strategic plan for development of school education at the district level.

. **Harmonise implementation**: It will harmonise the implementation mechanisms and transaction costs at all levels; particularly in using state, district and sub-district level systems and resources.

. **Improving systemic performance and outcomes**: Focus will shift from 'project objectives' to improving 'system level performance' and 'schooling outcomes'.

. **Improving quality**: It will incentivize States towards improving quality of education.

. **School as continuum**: The scheme envisages the 'school' as a continuum from pre-school, primary, upper primary, secondary to Senior Secondary levels.

. **Inclusive and equitable**: The vision of the Scheme is to ensure inclusive and equitable quality education from pre-school to senior secondary stage in accordance with the Sustainable Development Goal (SDG) for Education.

. **Two T's:** The main emphasis of the Scheme is on improving the quality of school education by focussing on the two T's – Teacher and Technology

. **In harmony with SDG: SDG4.1** which states that "By 2030, ensure that all boys and girls complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes".

   œ **SDG 4.5** states that "By 2030, eliminate gender disparities in education and ensure equal access to all levels of Education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations".

. **Focus regions for intervention**: It is proposed that preference in the interventions would be given to Educationally Backward Blocks (EBBs), LWEs affected districts, Special Focus Districts (SFDs), Border areas and the 117 Aspirational districts.

Objectives of the Scheme

. Provision of quality education and enhancing learning outcomes of students.

. Bridging Social and Gender Gaps in School Education.

. Ensuring equity and inclusion at all levels of school education.

. Ensuring minimum standards in schooling provisions.

. Promoting Vocationalisation of education.

- Support States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009.
- Strengthening and up-gradation of SCERTs/State Institutes of Education and DIET as nodal agencies for teacher training.

Interventions proposed

- Universal Access including Infrastructure Development and Retention
- Gender and Equity
- Inclusive Education
- Quality
- Financial support for Teacher Salary
- Digital Initiatives
- RTE Entitlements including uniforms, textbooks etc.
- Pre-school Education
- Vocational Education
- Sports and Physical Education
- Strengthening of Teacher Education and Training
- Monitoring
- Programme Management
- National Component.

Funding pattern and implementation

- The Scheme will be implemented as a **Centrally Sponsored Scheme.**
- **90:10 ratio**: The fund sharing pattern for the scheme between Centre and States is 90:10 for the 8 North-Eastern States and the 3 Himalayan States viz. Jammu & Kashmir, Himachal Pradesh and Uttarakhand.
- **60:40 ratio**: The fund sharing pattern for the scheme between Centre and States is 60:40 ratio for all other States and Union Territories with Legislature.
- **100% for UTs**: It is 100% centrally sponsored for Union Territories without Legislature.
- **Flexibility to states**: The scheme gives flexibility to the States and UTs to plan and prioritize their interventions within the scheme norms and the overall resource envelope given to them.
- **Fund allotment**: Funds will be allocated based on an objective criteria based on enrolment of students, committed liabilities, learning outcomes and various performance indicators.

Benefits

- **Transition rates**: The Scheme will help improve the transition rates across the various levels of school education.
- **Universal access**: It will aid in promoting universal access to children to complete school education.
- **Convergence and linkages**: The integration of Teacher Education would facilitate effective convergence and linkages between different support structures in school education. This will be done through interventions such as:
  - œ Unified training calendar
  - œ Innovations in pedagogy
  - œ Mentoring and monitoring, etc.
- **Need-focused and dynamic:** This single scheme will enable the SCERT to become the nodal agency for conduct and monitoring of all in-service training programmes to make it need-focused and dynamic.

. **Technology:** It would enable reaping the benefits of technology and widening the access of good quality education across all States and UTs and across all sections of the Society.

THE GULF BETWEEN RICH AND POOR, MEN AND WOMEN, GLOBALLY

◉ **CONTEXT**

- **A report published by Oxfam, the international non-profit focussed on the alleviation of global poverty, underlined what has been said repeatedly by governments, research organisations and a range of multilateral bodies over the past decade or more that economic inequality, "is out of control", with extremes of wealth existing alongside great poverty.**

◉ **ABOUT**

- "This great divide", "is based on a flawed and sexist economic system" which has "accumulated vast wealth and power into the hands of a rich few, in part by exploiting the labour of women and girls, and systematically violating their rights".

. The report, titled Time to Care: Unpaid and Underpaid Care Work and the Global Inequality Crisis, released ahead of the 50th Annual Meeting of the World Economic Forum (WEF), also said that India's richest 1% hold more than four times the wealth held by the 953 million who make up for the bottom 70% of the country's population.

How wide is the gap between the richest and the rest?

. 2,153 individuals, the number of billionaires in the world in 2019, have more wealth among them than 4.6 billion people.

. 22 of the world's richest men have a combined wealth that is more than the wealth of all the women of Africa.

. The world's richest 1% has more than twice as much wealth as 6.9 billion people.

. An additional 0.5% tax on the wealth of the richest 1% over the next 10 years can create 117 million jobs in education, health and elderly care, etc.

. From 2011 to 2017, average wages in G7 countries grew 3%, while dividends to wealthy shareholders increased by 31%.

How badly off are girls and women as compared to men?

. Globally, extreme poverty rates are 4% higher for women than men; this gap rises to 22% during women's peak productive and reproductive ages; that is, 122 women aged 25-34 for every 100 men of the same age group live in extremely poor households, largely due to childcare responsibilities.

. $10.8 trillion is the estimated minimum annual monetary value of the unpaid care work by women aged 15 and above globally — this is three times the size of the world's tech industry.

. Women do 12.5 billion hours of unpaid care work every day, equivalent to 1.5 billion people working 8 hours a day with no remuneration.

. Globally, 42% of working age women are outside the paid labour force, compared with 6% of men, due to unpaid care responsibilities.

. 80% of the estimated 67 million domestic workers worldwide are women.

. An estimated 90% of domestic workers have no access to social security such as maternity protection and benefits.

. Worldwide, girls aged 5-9 and 10-14 spend on average 30% and 50% more of their time respectively on unpaid care work than boys of similar ages.

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THE PULSE POLIO PROGRAMME

◉ **CONTEXT**

- **The Union health ministry has launched 'the Pulse Polio Programme' campaign to check the disease that affects children at a young age.**

The Pulse Polio Programme:

. India launched the **Pulse Polio immunisation programme** in 1995 after a resolution for a global initiative of polio eradication was adopted by the **World Health Assembly (WHA) in 1988.**

. Children in the age group of 0-5 years are administered polio drops during national and sub-national immunisation rounds (in high-risk areas) every year.

. According to the Ministry of Health, the **last polio case** in the country was reported from Howrah district of West Bengal in January 2011.

. Under the Pulse Polio Programme, all states and Union Territories have developed **Rapid Response Teams (RRT)** to respond to any polio outbreak in the country.

. **Emergency Preparedness and Response Plans (EPRP)** have also been developed by states, indicating steps to be undertaken in case of detection of a polio case.

What is Polio?

. The **World Health Organization (WHO)** defines polio or poliomyelitis as "a highly infectious viral disease, which mainly affects young children.

. The virus is transmitted by person-to-person, spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and can cause paralysis.

. There are three wild-types of poliovirus that cause the disease:

    œ Wild Poliovirus 1 (WP1)

    œ Wild Poliovirus 2 (WP2)

    œ Wild Poliovirus 3 (WP3)

. Out of the three, WPV-2 was interrupted successfully more than a decade ago.

. The two remaining viruses, now seen in Pakistan, Afghanistan and Nigeria, are WPV-1 and WPV-3.

. **Symptoms:** Initial symptoms of polio include fever, fatigue, headache, vomiting, stiffness in the neck, and pain in the limbs.

. **Effect:** In a small proportion of cases, the disease causes paralysis, which is often permanent. There is no cure for polio, it can only be prevented by immunization."

Treatment of Polio:

. There are two vaccines available to fight polio:

    œ **Inactivated poliovirus (IPV):** IPV consists of a series of injections that start 2 months after birth and continue until the child is 4 to 6 years old. This version of the vaccine is provided to most children in the U.S. The vaccine is made from inactive poliovirus. It is very safe and effective and cannot cause polio.

    œ **Oral polio vaccine (OPV):** OPV is created from a weakened form of poliovirus. This version is the vaccine of choice in many countries because it is a low cost, easy to administer, and gives an excellent level of immunity. However, in very rare cases, OPV has been known to revert to a dangerous form of poliovirus, which is able to cause paralysis.

. Polio vaccinations, or boosters, are highly recommended for anyone who is not vaccinated or is unsure whether they are.

Is India Polio free?

. The WHO on February 24, 2012, removed India from the list of countries with active endemic wild poliovirus transmission.

. Two years later, the South-East Asia Region of the WHO, of which India is a part, was certified as polio-free.

. The Regional Certification Commission (RCC) on March 27, 2014, stated: "The Commission concludes, from the evidence provided by the National Certificate Committees of the 11 Member States, that the transmission of indigenous wild poliovirus has been interrupted in all the countries of the Region."

. To prevent the virus from coming to India, the government has since March 2014 made the **Oral Polio Vaccination (OPV)** mandatory for those travelling between India and polio-affected countries, such as Afghanistan, Nigeria, Pakistan, Ethiopia, Kenya, Somalia, Syria and Cameroon.

Why India still runs it?

. The Indian policy-makers continue to focus on polio, though the Southeast Asian region, including India, became polio-free in 2014.

. This is because the threat of resurgence is real and can happen in two ways.

. As of today, two countries — Pakistan and Afghanistan — still have circulating polio. And the poliovirus can cross borders easily through adults who show no symptoms.

. In 2011, 10 years after becoming polio-free, China's Xinjiang province saw 21 cases of paralytic polio and two deaths.

. Once we stop the remaining two viruses (WPV-1 and WPV-3) in their tracks, OPV will be phased out and replaced globally with IPV.

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MISCELLANEOUS

CURRENT AFFAIRS

CHINA & MYANMAR

. Myanmar and China on Saturday signed 33 bilateral agreements that will bind the south-east Asian country closer to its giant neighbour, including rail and deep-sea port projects along an economic corridor linking China's south-western interior to the Indian Ocean.

. The accords include those to construct a rail link and a deep-sea port – part of a China-Myanmar-Economic Corridor – that runs from China's south-western region to the Bay of Bengal.

. This will give a significant push to China's ambitious Belt and Road Initiative to which Myanmar had signed onto in 2018 amid lack of investments from western countries.

. China is also Myanmar's biggest trading partner and one of its largest sources of inward investment.

. A Myanmar military campaign in 2017-18 caused some 730,000 Rohingyas from Rakhine state to flee to Bangladesh.

. Through the construction of the Kyaukpyu port, China will be making its presence felt on India's eastern flank.

. The Kyaukphyu port would give China direct access to the Indian Ocean, allowing it to bypass the Strait of Malacca.

. Around 80 percent of China's oil imports pass through the narrow strait between Malaysia and Indonesia, leaving it vulnerable to blockades or unrest over the disputed South China Sea.

. The port, coupled with a planned railway from Kyaukphyu to China's Yunnan province would not only bypass the strait but also be more direct.

Hydrochlorofluorocarbon (HCFC)-141 b

. India has successfully achieved the complete phase-out of hydrochlorofluorocarbon (HCFC)-141 b, according to the ministry of environment, forest and climate change.

. HCFC- 141 b is a chemical used by foam manufacturers as a blowing agent in the production of rigid polyurethane (PU) foams.

. It is one of the most potent ozone-depleting chemicals after Chlorofluorocarbons (CFCs).

. The complete phase-out of HCFC 141 b from the country in the foam sector is among the first at this scale in **Article 5 parties** (developing countries) under the **Montreal Protocol**.

NATIONAL MISSION OF CLEAN GANGA (NMCG)

. The National Mission for Clean Ganga (NMCG) under its 'Namami Gange' program has taken up an initiative to conserve the wetlands in Ganga River Basin.

. The difference in the Namami Gange Project is primarily to rejuvenate the river through increasing the base flow and aquifers recharge and conservation of wetlands because that forms the part of one of our `Aviral Dhara' which is to maintain the environmental flow in the river.

. So, in a first step the programme is aimed at conserving wetlands in Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal.

. The NMCG in collaboration with the State Wetland Authorities will help in identifying and preparing Integrated Management Plans for management and conservation in the Ganga basin.

. The program is also aimed at involving the community in the wetland conservation process through the Wildlife Institute of India. Apart from the government's efforts, NMCG has also appointed a team to educate the people in contributing to the rejuvenation of these water bodies.

. Ecosystem-based and community-led models of rejuvenation of wetlands for enhancing `Aviralta' and `Nirmalta' of the river and water conservation in the Ganga basin are being integrated into the Namami Gange Programme.

NATIONAL STARTUP ADVISORY COUNCIL

. The Union Government has notified the structure of the National Startup Advisory Council to advise on measures needed to build a strong ecosystem for nurturing innovation and startups in the country.

. The Council will be chaired by Minister for Commerce & Industry.

. It will consist of the non-official members, to be nominated by Central Government, from various categories like founders of successful startups, veterans and persons capable of representing interests of incubators and accelerators etc.

VYOM MITRA

. Before orbiting astronauts on India's first manned mission to space in December 2021, the Indian Space Research Organisation will send 'Vyom Mitra', a 'lady robot' in the unmanned Gaganyaan spacecraft.

. Vyom Mitra will be used for an unmanned flight of ISRO's GSLV III rocket in December 2020, which, along with a second unmanned flight in July 2021.

. The lady robot, equipped with a head, two arms and a torso, is built to mimic crew activity inside the crew module of Gaganyaan.

. It is capable of conversing with astronauts, recognising them, and responding to their queries.

WHAT IS THE YADA YADA VIRUS?

. Team of researchers extracted RNA from a large number of mosquitoes in Australia's Victoria state; they found a new alphavirus, which belonged to a group that includes other alphaviruses such as chikungunya virus and the astern equine encephalitis.

. The virus poses no threat to human beings, because it is a part of a group of viruses that only infect mosquitoes.

. Other viruses in the same group include the Tai forest alphavirus and the Agua Salud alphavirus.

. It implies a reference to something that is synonymous with "etcetera, etcetera" or "blah blah".

WHAT IS XENOBOT?

. Scientists in the United States have created the world's first "**living machines**" — tiny robots built from the cells of the **African clawed frog**, that can move around on their own.

. The species of aquatic frog was found across sub-Saharan Africa from Nigeria and Sudan to South Africa, Xenopus laevis.

. The living machines are less than a millimetre (0.04 inches) wide-small enough to travel inside human bodies.

. They can walk and swim, survive for weeks without food, and work together in groups.

WINGS INDIA 2020

. Indian aviation and technology leaders gathered in Bengaluru for industry meet ahead of "Wings India 2020", Asia's largest civil aviation event.

. Over the last decade, India has witnessed a robust civil aviation market, and through this event we aim to provide a congenial forum that will cater to the rapidly changing dynamics of the sector, focusing on new business acquisition, investments, policy formation and regional connectivity.

- Wings India 2020, a flagship event of the Indian Civil Aviation industry will be held at Begumpet Airport, Hyderabad from 12-15 March 2020. It is organized by the Ministry of Civil Aviation, Govt. of India, AAI and FICCI.
- 'Wings India 2020'- a four-day event themed: "Flying for All'' is an international platform focused on the new business acquisition, investments, policy formation and regional connectivity in the civil aviation industry.

WORLD GOLD COUNCIL (WGC) REPORT

- After a bumper year in 2019, gold will continue to shine in 2020, says the World Gold Council (WGC). The interplay between market risk and economic growth will drive demand, according to its recent 'Gold Outlook 2020' report.
- The council released a report on total gold holdings by global central banks recently. It was based on data provided by them on gold buying to the International Monitory Fund (IMF).
- The Reserve Bank of India (RBI) bought 7.5 tonnes of gold in October 2019 for adding to its foreign exchange reserves, which swelled to $461 billion, including $28 billion gold.
- The RBI now holds 625.2 tonnes of gold or 6.6 per cent of its forex reserves.
- In terms of total gold bought in 2019, it is the sixth largest buyer with 25.2 tonnes purchases in the first 10 months of 2019.
- China, Russia, Kazakhstan, Turkey, Poland bought more gold than India in 2019. Total gold purchased by central banks from January to November 2019 was 570 tonnes.
- WGC said in its latest data analysed for ETFs that, "Gold-backed ETF inflows alongside central bank purchases were a large driver of global gold demand in 2019."
- Tax cuts have to be introduced as a credible incentive to spur economic growth, the report said, highlighting that higher taxes are exacerbating the impact of the record high local gold price on consumption.
- The immediate trigger for gold prices is the escalating tensions in the Middle East.
- While the introduction of mandatory hallmarking for gold jewellery at the beginning of the year may enhance consumer trust, this potential initial disruption should not be ignored, WGC has said.
- A 'spot exchange' — when it becomes a reality — is expected to usher in transparency and thereby benefit consumers and small jewellers. Indications are that the gold consumption in India slipped in 2019 as against the level in previous year.

Z-MORH TUNNEL

- In order to accelerate the pace of infrastructural development in the UT of Jammu and Kashmir, the Central Government has approved construction of 6.5 kilometres long **Z-Morh tunnel** on **Srinagar -Leh National Highway**.
- Z-Morh Tunnel would provide all-weather road connectivity to Sonamarg tourist spot in Jammu and Kashmir which mostly remains closed during the winters due to heavy snowfall in Gagenger area.

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