

THE IAS GAZETTE

A House Journal of **APTI PLUS**

MARCH 2021



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Sources

The Hindu | The Indian Express
Live mint | The Economic Times
PIB | PRS | ET
Government & World Reports
(NITI Aayog, Budget, WEF
Economic Survey etc.)
Hindu Business Line | NCERTs
All standard reference books

HEAD OFFICE & KOLKATA CAMPUS

Office no. 803, "AMP Mall Vaisaakkhi"
8th floor, Salt Lake Sector – II,
Salt Lake City - AG 112, Kolkata-700091
Ph: +91-8820341777

BHUBANESHWAR CAMPUS

Plot No. 2280, Biju Pattanaik
College Road, Jaydev Vihar,
Bhubaneswar, Odisha-751013
Phone: 099383 86166

ELGIN ROAD

Elgin Chambers, 3rd Floor, Room No. 302,
1A, Ashutosh Mukherjee Road, Kolkata-20
mail: apti.plus@gmail.com,
Ph: (033)-40645777, +91-8100765577

E-mail

apti.plus@gmail.com
theiasgazette@gmail.com
Website: <http://www.aptiplus.in>



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Arise, awake and stop not till the goal is reached.

- Swami Vivekananda

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LEPAKSHI TEMPLE

GS-I CULTURE & HERITAGE

Context

- A tableau on Lepakshi temple was selected for the Republic Day parade to be held in New Delhi, representing Andhra Pradesh.

Temple	Details
Other name	Veerabhadra temple
Dedicated to	Virabhadra, a fierce emanation of Lord Shiva.
Year of construction	1530 AD
Built by	VirupannaNayaka and Viranna ----- brothers who were Governors under the Vijayanagar Empire
Built under the reign of	King Achutaraya
Style	Vijayanagara
Architecture	Dravidian
Built on	Tortoise shaped Granite rock, also known as KurmaSaila.
Location	In Andhra Pradesh. 140 kilometres away from Bangalore.
Features	Fresco paintings with scenes from the epic stories of the Ramayana, the Mahabharata and the Puranas.
Prominent Features	<ul style="list-style-type: none"> Large Nandi (bull), mount of Shiva, carved from a single block of stone - of the largest of its type in the world. Hanging Pillar of Lepakshi Largest Monolithic Nandi in India Largest Monolithic Nagalinga in India LepakshiSaree Designs Unfinished KalyanaMantapa DurgaPadam Eyes of Virupanna Mural Paintings which include the largest portrait painting in the world (Portrait of VeerabadraSwamy in the ceiling, in front of the main temple) Carved Ganesha Statues

- Fresco is a technique of mural painting executed upon freshly laid ("wet") lime plaster. Water is used as the vehicle for the dry-powder pigment to merge with the plaster, and with the setting of the plaster, the painting becomes an integral part of the wall.

SRI JAGANNATH TEMPLE

GS-I CULTURE & HERITAGE

Context

- The draft architectural plan and design of the Sri Jagannath temple heritage corridor project with an estimated cost of Rs 3,200 crore was given the green signal by the temple managing committee recently.

Temple	Details
Other name	White Pagoda, TirtaYamanika
Deities	Lord Jagannath, Balabhadra and Subhadra
Year of construction	1161 AD
Built by	Indradyumna
Rebuilt by	King AnantavarmanChodaganga Deva, first of the Eastern Ganga dynasty.
Location	In Andhra Pradesh. 140 kilometres away from Bangalore.
Style	Kalinga Architecture
Idol of Jagannath	Made up of wood
Prominent Festivals	RathaYatra or Chariot Festival, ChandanYatra, SnanYatra and Nabakalebara

Why the Temple is also called TirthaYamanika?

- 'Yama', the god of death has been nullified in Puri due to the presence of Lord Jagannath.

Why the Temple is also called White Pagoda?

- The Temple is called White Pagoda for its colour the way Konark Temple is called 'Black Pagoda' due to its dark color and its magnetic power that drew ships into the shore and caused shipwrecks.

What is Nabakalebara?



- Nabakalebara is a symbolic recreation of the wooden forms of three Hindu deities (Jagannath, Balabhadra, Subhadra, and Sudarshana) at Jagannath Temple, Puri.
- In the cult of Jagannath, the ritual is performed during the eighth, 12th, or 19th year after the previous Nabakalebara.
- Nabakalebara is an important festival in the Hindu Odia calendar, observed in the Jagannath Temple, Puri.
- It marks the demise and rebirth of lord Jagannath at Puri.
- The event involves installation of new images in the Jagannath temple and burial of the old ones in the temple premises at KoiliBaikuntha.

Structural Details of the Temple

MeghanadaPacheri

- High fortified wall that surrounds the huge temple complex of Jagannath.

KurmaBedha

- Wall that surrounds the Main Temple

Baisipahacha

- Immediately, after the entrance into the temple through Simhadvara, a pilgrim has to cross Baisipahacha (22 steps) which, as per the Hindu belief, represent twenty-two sins of human life. When one crosses these steps, he crosses all the sins and attains Punya (religious merit).

Nilachakra

- The Nila Chakra (Blue Discus) is the discus mounted on the top shikhar of the Jagannath Temple.
- As per custom, everyday a different flag is waved on the Nila Chakra. The flag hoisted on the NilaChakra is called the PatitaPavana (Purifier of the Fallen) and is equivalent to the image of the deities placed in the sanctum sanctorum.
- Nila Chakra is made of alloy of eight metals (Asta-dhatu).
- The Nila Chakra is the only physical object whose markings are used as sacrament and considered sacred in Jagannath worship. It symbolizes protection by Shri Jagannath.

Rosasala

- The Rosasala or the kitchen of Lord Jagannath is regarded as the greatest kitchen of the world.
- Here, rice and vegetables are cooked simultaneously by earthen pots kept over one another.

Muktimandapa

- The Muktimandapa (hall of salvation) is a sixteen pillared elevated rectangular building.
- Here, Brahmin Pandits, give their expert guidance to people to get rid of sins.

Rohinikunda

- Close to the Muktimandapa there is RohiniKunda. It contains an image of a crow with four hands. The water of this Kunda is regarded as sacred by the pilgrims who sprinkle the same over their head.

Sectional Structures

The temple has four distinct sectional structures, namely –

- Deula, Vimana or Garbagriha (Sanctum sanctorum) where the triad deities are lodged on the ratnavedi (Throne of Pearls). It is in RekhaDeula style; ---- The Vimana has been constructed in a Pancharatha plan.
- Mukhashala (Frontal porch);
- Natamandir/Natamandapa, which is also known as the Jagamohan (Audience Hall/Dancing Hall), and
- BhogaMandapa (Offerings Hall)

CHAURI CHAURA INCIDENT

GS-I MODERN HISTORY

Context

- In 1921, at the peak of the non-cooperation movement, an incident at ChauriChaura in the United Provinces (now UP) changed the course of India's freedom movement.
- Recently, Prime Minister, Modi inaugurated the 100 years of 'ChauriChaura' Centenary Celebrations at Gorakhpur, Uttar Pradesh.


Background

NON CO-OPERATION MOVEMENT

" NCM opened a new chapter in the history of the Freedom Movement in India. It was the beginning of the Gandhian Movement against the British "

About the Movement

- * The movement led by Mahatma Gandhi and INC, was the first nationwide mass protest in the history of Indian Independence.
- * It stretched from September 1920 to February 1922.
- * It was aimed to resist British rule in India through "Ahimsa".
- * Gandhi assured that Swaraj would be achieved in one year if his Non-Cooperation programme was fully implemented.



Background

Rowlett Act

- During World War I, British imposed censorship on the press and permitted detention without trial.
- Rowlett recommended that British to continue these rules even after the war ended.

Jallianwala Bagh Massacre

- The Movement took a hike after the Jallianwala Bagh Massacre in 1919, when the British officer General Dyer, led a troop and killed 400 innocent Indians including women, children & elderly.


Khilafat Issue

- The World War I had ended with the defeat of Ottoman Turkey. And there were rumours that a harsh peace treaty was going to be imposed on Ottoman emperor (Khalifa). To defend the Khalifa's temporal powers, a Khilafat Committee was formed in Bombay in March 1919.

" After a series of these events, Gandhiji realised that there was no prospect of getting any fair treatment at the hands of British, so he planned to withdraw the nation's co-operation from the British.."


Phases of Movement

- The movement was to be nonviolent and to begin with surrender of titles and boycott of civil services, courts, army, police and legislative councils, schools & foreign goods and eventually, refusing to pay taxes.
- Non-cooperation was agreed to by the INC at Calcutta in September 1920 and launched that December.
- In 1921 the british, confronted with a united Indian front for the first time, was visibly shaken, but a revolt by the Muslim Moplahs of Kerala in August 1921 and a number of violent outbreaks alarmed moderate opinion.
- After an angry mob murdered police officers in the village of Chauri-chaura in February 1922, Gandhi himself called-off the movement.



Consequences

- The movement marked the transition of Indian nationalism from a middle-class to a mass basis.
- The status of Self-government was not achieved in one year as promised by Mahatma Gandhi.
- The NCM was no doubt suspended but it has served a unique purpose in the process of the reorganisation of the Congress from top to bottom.
- With the movement, nationalist sentiments reached every nook & corner of the country and politicised everyone.
- It was this politicisation and activation of millions of men and women which imparted a revolutionary character to the national movement.




About

CHAURI CHAURA CENTENARY
THE INCIDENT

Date: February 4, 1921


The Chauri Chaura incident occurred at Chauri Chaura in the Gorakhpur district of the United Province (now Uttar Pradesh)

A crowd of protestors set fire to a police station in protest against the police firing on peaceful agitators participating in the non-cooperation movement



CASUALTIES
The incident resulted in deaths of several policemen and protestors.

SIGNIFICANCE
It led to Mahatma Gandhi halting the non-cooperation movement against the British rule



NEWS18
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CHAURI CHAURA CENTENARY
NON-COOPERATION MOVEMENT

Launched: 1 AUG 1920

Aim: SWARAJ

It was supposed to be a peaceful and non-violent movement requiring people to relinquish their government jobs and titles, **stop going to government schools and colleges, not serve in the army, and refuse to pay taxes** as an extreme measure



CHAURI CHAURA CENTENARY



SERIES OF EVENTS

1 AUG 1920
Non-cooperation movement launched

2 FEB 1922
A group of people protesting against high meat prices beaten by the police. many loaders detained at the Chauri Chaura police station

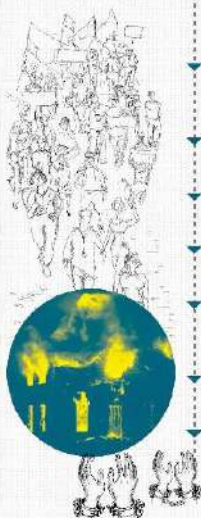


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CHAURI CHAURA CENTENARY

SERIES OF EVENTS

4 FEB 1922



➤ **About 2500 people** marched towards the Chauri Chaura market; one of their leaders arrested

➤ **The group then** marched towards the police station demanding the release of the arrested leader

➤ **Policemen fired** shots in the air hoping to disperse the crowd

➤ **Crowd became** agitated and started pelting stones at the policemen

➤ **The sub-inspector** at the station fired at the crowd; three people killed

➤ **The incensed people** charged at the policemen who were heavily outnumbered

➤ **Police station set ablaze;** policemen and officials inside charred to death

➤ **The British government** imposed martial law in the area; many protestors arrested

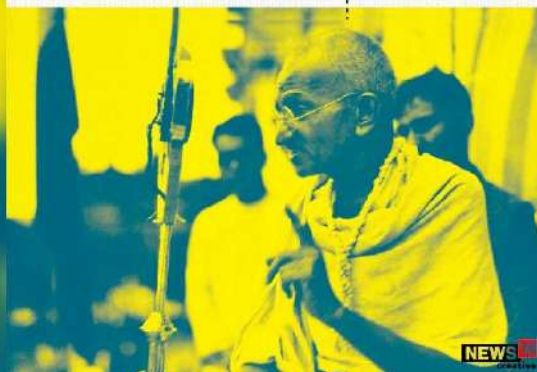
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CHAURI CHAURA CENTENARY

SERIES OF EVENTS

12 FEB 1922

Gandhi withdrew the movement; many leaders were against the decision



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CHAURI CHAURA CENTENARY

AFTER THE INCIDENT

The British brought
228 people
to trial, six of
them died in police
custody

After an eight
month-long trial,
172 people were
sentenced to death.



The Allahabad High Court, after reviewing the sentences, confirmed 19 death sentences, 110 life imprisonments, and
sentenced the rest to long jail terms

NEWS 18
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SWACHH ICONIC PLACES**GS-I CULTURE & HERITAGE****Context**

- Ministry of Jal Shakti has announced the selection of the following Twelve (12) iconic sites under Phase IV of Swachh Iconic Places initiative.
- This is for transforming iconic heritage, spiritual and cultural places in the country as 'Swachh Tourist Destinations' under Swachh Iconic Places (SIP) initiative of Swachh Bharat Mission Grameen (SBM-G).

About the Swachh Iconic Places Initiative

- The Swachh Iconic Places is an initiative under the Swachh Bharat Mission.
- It is a special clean-up initiative focused on select iconic heritage, spiritual and cultural places in the country.
- The initiative is being coordinated by the
 - i. Department of Drinking Water and Sanitation,
 - ii. Ministry of Jal Shakti in association with the Ministry of Urban Development,
 - iii. Ministry of Culture, Ministry of Tourism and the concerned State governments.

Aim

- The goal of the Initiative is to improve the cleanliness conditions at these places (spiritual places) to a distinctly higher level.

Phase I coverage of iconic places

1. Vaishno Devi, Jammu and Kashmir
2. Chhatrapati Shivaji Terminus, Maharashtra
3. Taj Mahal, Uttar Pradesh
4. Tirupati Temple, Andhra Pradesh
5. Golden Temple, Punjab
6. Manikarnika Ghat, Varanasi, Uttar Pradesh
7. Ajmer Sharif Dargah, Rajasthan
8. Meenakshi Temple, Tamil Nadu
9. Kamakhya Temple, Assam
10. Jagannath Puri, Odisha

Phase II coverage of iconic places

1. Gangotri
2. Yamunotri
3. Mahakaleshwar Temple, Ujjain
4. Char Minar, Hyderabad
5. Church and Convent of St. Francis of Assisi, Goa
6. Adi Shankaracharya's abode Kaladi in Ernakulam
7. Gomateshwar in Shravanbelgola
8. Baijnath Dham, Devghar
9. Gaya Tirth in Bihar
10. Somnath temple in Gujarat.

Phase III coverage iconic places

1. Raghavendra Swamy Temple (Kurnool, Andhra Pradesh)
2. Hazarduari Palace (Murshidabad, West Bengal)
3. Brahma Sarovar Temple (Kurukshetra, Haryana)

4. VidurKuti (Bijnor, Uttar Pradesh)
5. Mana village (Chamoli, Uttarakhand)
6. Pangong Lake (Leh-Ladakh, J&K)
7. Nagvasuki Temple (Allahabad, Uttar Pradesh)
8. ImaKeithal/market (Imphal, Manipur)
9. Sabarimala Temple (Kerala)
10. Kanvashram (Uttarakhand)

Sites under Phase IV

1. Ajanta Caves, Maharashtra
2. Sanchi Stupa, Madhya Pradesh
3. Kumbhalgarh Fort, Rajasthan
4. Jaisalmer Fort, Rajasthan
5. Ramdevra, Jaisalmer, Rajasthan
6. Golconda Fort, Hyderabad, Telangana
7. Sun Temple, Konark, Odisha
8. Rock Garden, Chandigarh
9. Dal Lake, Srinagar, Jammu & Kashmir
10. BankeBihari Temple, Mathura, Uttar Pradesh
11. Agra Fort, Agra, Uttar Pradesh
12. Kalighat Temple, West Bengal

Significance

- In a bid to increase tourists footfall at these world famous sites, the project has envisaged to improve sanitation and cleanliness standards at and around the tourist sites.

VIJAYANAGARA EMPIRE

GS-I MEDIEVAL HISTORY

Context

- The first-ever epigraphical reference to the date of death of Vijayanagara king Krishnadevaraya has been discovered in the Tumakuru district of Karnataka.

About Krishnadevaraya

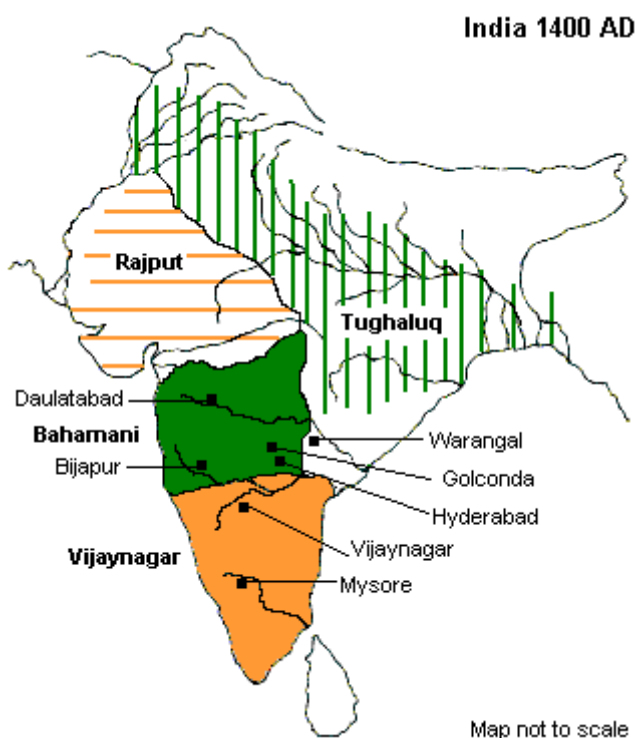
- Krishna Devaraya was the emperor of the Vijayanagara Empire during 1509–1529.
- He was the **third ruler of the Tuluva Dynasty** and is considered to be its greatest ruler.
- He possessed the largest empire in India after the decline of the Delhi Sultanate.
- Krishnadevaraya earned the **titles Kannada Rajya Rama Ramana**, Andhra Bhoja and MooruRayaraGanda (lit, "King of Three Kings").
- He became the dominant ruler of the peninsula of India by defeating the Sultans of Bijapur, Golconda, the Bahmani Sultanate and the Gajapatis of Odisha, and was one of the most powerful Hindu rulers in India.
- Krishnadeva Raya was the most famous king of the Vijaynagara Empire.
- The Vijayanagar kingdom reached the pinnacle of its glory during his reign.
- He was successful in all the wars he waged. He defeated the king of Odisha and annexed Vijaywada and Rajmahendri.
- Krishnadeva Raya encouraged trade with the western countries.
- He had a cordial relationship with the Portuguese who had at that time established trade centres on the west coast of India.
- He endeared himself to the people by his personal charm, kindness, and an ideal administration.
- The decline of the Vijayanagar kingdom began with the death of Krishnadeva Raya in 1529.

- The kingdom came to an end in 1565, when Ramrai was defeated at Talikota by the joint efforts of Adilshahi, Nizamshahi, Qutubshahi and Baridshahi. After this, the kingdom broke into small states.
- Portuguese travellers Domingo Paes and Fernao Nuniz also visited the Vijayanagara Empire during his reign.
- Travelogues indicate that the king was not only an able administrator but also an excellent general, leading from the front in battle and even attending to the wounded.
- The South Indian poet Muku Timmana praised him as the **destroyer of the Turks**.
- Krishnadevaraya benefited from the able **prime minister Timmarusu**, who was regarded by the emperor as a father figure and responsible for his coronation.
- Timmarusu was regarded as an intelligent advisor who guided Krishnadevaraya to success.

Art and Literature

- The rule of Krishna Deva Raya was an age of prolific literature in many languages, although it is also known as a **golden age of Telugu literature**.
- Thus, he was not only a great warrior, but was also a playwright and a great patron of learning.
- Telugu literature flourished under him. Painting, sculpture, dance and music were greatly encouraged by him and his successors.
- Emperor Krishna Deva Raya was fluent in many languages.
- Krishna Deva Raya took the title of **Abhinava-Bhoja and Sakala-Kala-Bhoja** ("Bhoja of all the arts") in the honour of Parmara emperor Bhoja who was polymath, a master of 64 arts and a military genius.
- The poet Mukku Timma was his great admirer.
- **Ashtadiggajas: A group of eight scholars adorned his court and they were:**
 - I. Allasani Peddanna – the author of Manucharitram, he was also known as Andhra Kavita Pitamah
 - II. Nandi Thimmana – the author of Parijathapaharanam
 - III. Madayagari Mallana
 - IV. Dhurjati
 - V. Ayyalaraju Ramabhadra Kavi
 - VI. Pingali Surana
 - VII. Ramaraja Bhushana
 - VIII. Tenali Ramakrishna

Vijayanagara Empire



Founder - Harihara and Bukka of the Sangama dynasty in 1336.

Alteranate Names- Karnata Empire, and the Kingdom of Bisnagar (called by the Portuguese)

Ruled till- 1646. Although its power declined after a major military defeat in the Battle of Talikota in 1565 by the combined armies of the Deccan sultanates.

Surrounds- Hampi, now a World Heritage Site in Karnataka

Capital- Vijayanagara, Penukonda, Chandragiri

Common languages- Kannada, Telugu, Sanskrit

Preceded by-

Hoysala Empire

Kakatiya dynasty

Kampili kingdom

Madurai Sultanate

Pandyan dynasty

MusunuriNayaks

Reddy dynasty

Succeeded by-

Kingdom of Mysore

Nayakas of Keladi

ThanjavurNayak kingdom

Madurai Nayak dynasty

Nayakas of Chitradurga

AdilShahi dynasty

QutbShahi dynasty

Nayaks of Gingee

Sequence of Rulers and Dynasties in Vijayanagara Empire

Sangama dynasty

Harihara I	1336-1356
Bukka Raya I	1356-1377
Harihara Raya II	1377-1404
Virupaksha Raya	1404-1405
Bukka Raya II	1405-1406
Deva Raya I	1406-1422
Ramachandra Raya	1422
ViraVijayaBukka Raya	1422-1424
Deva Raya II	1424-1446
Mallikarjuna Raya	1446-1465
Virupaksha Raya II	1465-1485
Praudha Raya	1485

Saluva dynasty

SaluvaNarasimha Deva Raya	1485-1491
ThimmaBhupala	1491
Narasimha Raya II	1491-1505

Tuluva dynasty

TuluvaNarasaNayaka	1491-1503
ViraNarasimha Raya	1503-1509
Krishna Deva Raya	1509-1529
Achyuta Deva Raya	1529-1542
Venkata I	1542
Sadasiva Raya	1542-1570

Aravidu dynasty

Aliya Rama Raya	1542-1565
Tirumala Deva Raya	1565-1572
Sriranga I	1572-1586
Venkata II	1586-1614
Sriranga II	1614
Rama Deva Raya	1617-1632
Venkata III	1632-1642
Sriranga III	1642-1646

Administration in Vijaynagara Empire

- The Empire was a Monarchy. The vijaynagar Empire gradually developed a centralised administration with all its branches carefully organised.
- The king was the head of all power in the Vijaynagar State.
- He was the authority in civil, military as well as judicial affairs and also often intervened to settle social disputes.
- For purpose of administration, the empire was divided into 6 provinces.
- A province was called Prant, or Rajya.
- Each province was under a viceroy or Nayak who was either a member of the royal family or influential noble of the state.
- Every viceroy enjoyed civil, military and judiciary powers within the province.
- He was required to submit regularly account of the income and expenditure to the central government.

Council of Ministers

- Though the Brahmanas held high offices in the administration and had considerable influence, the ministers were recruited not only from the rank but also from those of the Kshatriyas and the Vaishyas.
- The office of a minister was sometimes hereditary and sometimes rested on selection.

Decentralised administration:

- The rulers of Vijayanagara adopted the principle of the decentralisation of political power.
- The empire was, divided into provinces prants, districts, 'Nadus', 'Melagams' and 'grams'. Administration of the villages was autonomous.

Local Administration

- Each village was a self sufficient unit. The village assembly onducted the administration of the area under its charge- executive, judicial and police, through its **hereditary officers like the senateova or the village accountant, the talara** or the village watchman or the commandant, the **begara or the superintendent** of forced labour and others.
- These village officers were paid by grants of land or a portion of agricultural produce.
- The king maintained a link with the village administration through **his officer called Mahanayakacharyawho** exercised a general supervision over it.

Nayankar system of administration

- Under this system, the ruler assigned a land track to officials in lieu of pay i.e. for maintaining themselves and that of their army from the land track itself.
- These officials or land-lords provided military service to the ruler.

Sources of Revenue

- Land revenue was the chief source of income. Land revenue known as "**sist**"
- Land was divided into four categories for purposes of assessment, wet land, dry land, orchards and woods.
- So, the Vijaynagar rulers adopted the " principle of differential taxation", that is, levied taxes according to the relative fertility of the lands.
- Usually the share was one sixth of the produce.
- Land revenue could be paid in cash or kind.
- The rates varied according to the type of the crops, soil, method of irrigation, etc.
- Apart from land revenue, other taxes were: irrigation tax, grazing tax and import- export duties on merchandise goods.

Military organization

- The army consisted of infantry, cavalry, artillery and camels.
- The rulers of Vijaynagar had a carefully organised military departments **called 'Kandachara'**, under the control of the Dandanayaka or Dannayaka(commander – in-chief) who was assisted by a staff of minor officials.
- The State maintained a large and efficient army, the numerical strength of which was not , however, uniform all through.
- The rulers of the Vijayanagara empire neglected naval power.
- The rulers recruited Turkish archers in the army.
- The military organisation was rather weak and its primary weakness was artillery.
- Chariots had gone out of use. The efficiency of the huge army was not proportionate to the number of force.

Orders of the Rulers:

- No written orders were issued by the rulers.
- The royal words were carefully noted down by secretaries, whose record was the sole evidence of the commands

issued.

Judiciary

- The king as the supreme judge, but there were regular courts and special judicial officers for the administration of justice.
- Sometimes, disputes were settled by the State officials with the co-operation of the local bodies.
- The only law of the land was not the law of the Brahmanas, but was based on traditional regulations and customs strengthened by the constitutional usage of the country, and its observance was strictly enforced.
- Severe punishment was inflicted on guilty persons.
- These penalties were chiefly of four kinds- fines, confiscation of property, ordeals and death.
- Death or mutilation was the punishment of crimes like thefts, adultery and treason.

Position of Women

- Women occupied a high position and took an active part in political, social and literary life of the empire.
- They were educated and trained in wrestling, in the use of various weapons of offence and defense, in music and fine arts.
- Some women also received education of high order.
- Nuniz writes that the kings had women astrologers, clerks, accountants, guards and wrestlers

Social Life

- The practice of untouchability existed.
- Child marriage, polygamy and sati were prevalent.
- Caste was determined either by individual's occupation or the community they belonged to.

Economy

- The economy was dependent on Agriculture.
- The empire's capital city was the main business hub.
- The capital city was noted for its markets dealing in spices, textiles and precious stones.
- Land ownership was important.
- Textiles, mining, metallurgy perfumery, and other several industries existed.
- They had commercial relations with, the islands in the Indian Ocean, Abyssinia, Arabia, Burma, China, Persia, Portugal, South Africa, and The Malay Archipelago.

Contribution to Architecture and Literature

- The Hazara Rama temple and Vittalaswamy temple was built during this period.
- Vijayanagara architecture is the combination of Chalukya, Hoysala, Pandya and Chola styles.
- The bronze image of Krishnadevaraya is a masterpiece.
- Sanskrit, Tamil, Telugu and Kannada literature were developed.
- Sayana wrote commentaries on Vedas.
- Krishnadevaraya wrote **Amuktamalyada in Telugu** and **UshaParinayam and JambavathiKalyanam** in Sanskrit.
- Field surveys indicate that the entire area was dotted with numerous shrines and small temples which proved that variety of cultures existed and were supported by different communities.

SARAS AJEEVIKA MELA

GS-I CULTURE & HERITAGE

Context

- Recently, the Ministry of Agriculture and Farmers Welfare, Rural Development inaugurated SarasAjjevikaMela 2021.

About

- SARAS AajeevikaMela is an initiative by the DeendayalAntyodayaYojana-National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development (MoRD).
- The Mela is organised by the marketing arm of the Ministry, Council for Advancement of People's Action and Rural Technology (CAPART).

Aim

- The objective of the Mission is to bring the rural women Self Help Groups (SHGs) formed with support of DAY-NRLM, under one platform to show-case their skills, sell their products and help them build linkages with bulk buyers.

Significance of the initiative

- Through participation in SARAS AajeevikaMela, these rural SHG women get vital national level exposure to understand the demand and taste of urban customers.
- Under the event, workshops are conducted for the rural SHG women.
- This workshop helps them to boost their knowledge and sharpen their skills in bookkeeping, product design, GST, packaging, communication skills, marketing or e-marketing etc.

AUSTRALIA'S OLDEST ROCK ART

GS-I ANCIENT HISTORY

Context

- Recently, a kangaroo painting created over 17,000 years ago by Aboriginal artists has been identified – with a little help from some ancient wasps – as Australia's oldest intact rock art.

Features of the Painting

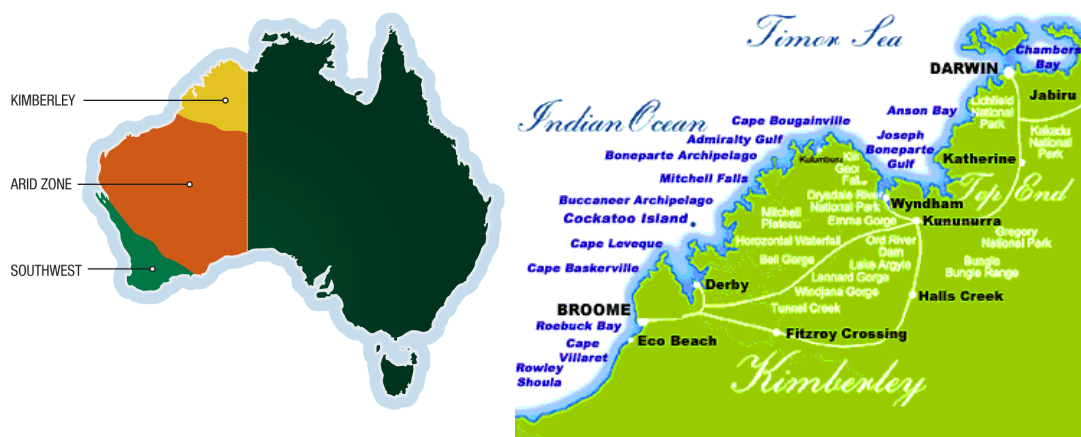
- It is a two-metre-long artwork.
- It was discovered on the sloped ceiling of rock shelter in Kimberley region of Western Australia.
- This artwork was painted in an early naturalistic style.
- The naturalistic style often features the life-sized renderings of animals.
- The kangaroo painting is somewhat 17,500 and 17,100 years old.
- The team discovered around 27 mud wasp nests along 16 different paintings from across the eight rock shelters.

Indigenous Australian Art

- Indigenous Australian art includes art made by Aboriginal Australian and Torres Strait Islander peoples.
- It includes works in a wide range of media including painting on leaves, bark painting, wood carving, rock carving, watercolour painting, sculpting, ceremonial clothing and sand painting.
- Art by Indigenous Australians that pre-dates European colonisation by thousands of years, up to the present day.
- There are several types of and methods used in making Aboriginal art, including rock painting, dot painting, rock engravings, bark painting, carvings, sculptures, and weaving and string art.
- Australian Aboriginal art is the oldest unbroken tradition of art in the world.

Kimberley Region

- The Kimberley is the northernmost of the nine regions of Western Australia.
- It is bordered on the west by the Indian Ocean, on the north by the Timor Sea, on the south by the Great Sandy and Tanami deserts in the region of the Pilbara, and on the east by the Northern Territory.



KHAJURAHO DANCE FESTIVAL

GS-I CULTURE & HERITAGE

Context

- The six-day Khajuraho Dance Festival was started on February 21, 2021.
- The dance festival is being organised at the Khajuraho Temple. The festival is being held in the temple premises after 44 years.

About the Festival

- The Khajuraho Dance Festival is organised by the Madhya Pradesh Kala Parishad.
- This festival highlights the richness of the Indian classical dance styles such as Kathak, Bharathanatyam, Odissi, Kuchipudi, Manipuri, and Kathakali with performances of some of the best exponents in the field. Modern Indian dance has been added recently.

Khajuraho Group of Monuments

- The Khajuraho is a city of Group of Monuments is a group of **Hindu temples and Jain temples** in Chhatarpur district, Madhya Pradesh.
- It is about 175 kilometres southeast of Jhansi. They are a **UNESCO World Heritage Site**.
- The temples are famous for their **nagara-style architectural symbolism** and their erotic sculptures.
- Most Khajuraho temples were built between 885 AD and 1050 AD **by the Chandela dynasty**.
- Khajuraho temple site had 85 temples by the 12th century, spread over 20 square kilometers.
- Of these, only about 25 temples have survived, spread over six square kilometers.
- The Khajuraho temples are made of sandstone, with a granite foundation that is almost hidden.
- The Khajuraho temples were reported for the first time by **Abu Rihan al Biruni** in AD 1022 and the Arab traveller Ibn Battuta in AD 1335.

Important Temples in Khajuraho Group of Monuments

1. Kandariya Mahadev Temple

In Khajuraho group of temples, Kandariya Mahadev temple is the largest and tallest Hindu temple dedicated to Lord Shiva. The architectural styles of the temple resemble the Mount Kailash with the main spire at a height of 31 meters.

The Shiva Linga in the temple made of marble is the major attraction of the temple. Here there are nearly 800 carved sculptures and 646 statues.

2. Chausath Yogini Temple

Chausath Yogini temple is a Hindu temple dedicated to 64 Yoginis means different forms of Mother Goddess. This temple in Khajuraho is the oldest one and most of the sculptures are ruined.

The temple structure is like a courtyard surrounded with numerous temples and these temples houses the

Yoginis.

3. Lakshmana Temple

Lakshmana temple is one of the biggest stone temples in Khajuraho and it was dedicated to Lord Vishnu. In Khajuraho group of temples, this temple is the most popular one.

The major architectural attractions of this temple are detailed outer walls sculptures, Lord Vishnu's reincarnation statue, some erotic structures and sculptures of elephants and horsemen etc.

4. Adinath Temple

Adinath temple is a well-known Jainism temple dedicated to Jain Tirthankara Adinatha. Even though it is a Jainism temple but on the outer walls, Hindu deities was showcased.

The significant architectural attractions of this temple are different sculptures belongs to Jain and Hindu deities such as Yakshinis, Chakreshvari, Ambika, Garuda, etc. The lotus position of Adinath is the must-see statue in Adinath temple.

5. Matangeshwar Temple

Matangeshwar temple is a Hindu temple dedicated to Lord Shiva. This temple is very famous in Khajuraho and ASI (Archaeological Survey of India) also declared this temple as Monument of National Importance.

Here in this temple, Lord Shiva is considered as sage Matang. In this temple, there are numerous Shiva lingas. The ceiling of this temple adorns beautiful architectural sculptures but the exteriors and interiors of the temple remain plain.

6. Javari Temple

Javari temple in Khajuraho was dedicated to Lord Vishnu. But the main idol of Lord Vishnu is broken and headless. The architectural attractions of this temple are entrance sanctum depicting various sculptures of Lord Shiva, Brahma, and Vishnu, beautiful Makara arch, and other exquisite ceilings of the temple.

The outer walls carved sculptures of this temple are great architect marvel pieces.

7. Devi Jagdamba Temple

Devi Jagdamba Temple is a finely decorated temple in Khajuraho dedicated to Lord Shiva and Goddess Parvathi. This temple is known for exquisite erotic sculptures and three bands carvings encircling the temple.

The major attraction of this temple is the sanctum of Goddess Parvathi Devi. The architectural attractions of the temple are numerous sculptures of pairs of men and women, surasundaris, sardulas etc.

8. Chitragupta Temple

Chitragupta Temple is a Hindu deity temple dedicated to Sun god Surya in Khajuraho. This temple is known for ornate and detail carvings. The major architectural attractions of this temple are the large hall with an octagonal ceiling and the Lord Vishnu's 10 incarnations statue.

And the other attractions of Chitragupta temple are some erotic sculptures like mithuna couple, surasundaris, apsaras etc.

9. Parsvanath Temple

Parsvanath temple is the largest Jain temple in a group of Khajuraho temples. Entrance structure and the detailed carvings of this temple are the best examples of architectural styles.

The major attraction of this temple is its main sanctum of Parsvanath with miniature scriptures. And the exteriors of the temple poses different Hindu deities sculptures and carvings.

10. Chaturbhuj Temple

Chaturbhuj Temple is dedicated to Lord Vishnu. The importance of the Lord Vishnu deity in this temple is with four hands on a high platform.

The architectural attractions of this temple also renowned for sculptures of Lord Brahma, Shiva, and Vishnu at the entrance and some sculptures of dikhpalas, nymphs, ashtavasus and mythical lions etc. This temple exteriors or interiors don't possess any erotic sculptures.

Key Features of Khajuraho Group of Monuments

Shikaras

When you go near Kandariya – Mahadev Temple have a good look at its SHIKARAS or temple rooftop which is

said to be the represent Himalayan adobe of Gods.

Sardula Statue

These statues represent four – lion stroking sardulas or part – lion, part – human mythical beasts.

Kama Sutra Carving

There are several erotic carvings spread all over Khajuraho temple – something they are famous for. It is said that these have been made to appease evil spirits but how true it is no one knows.

Nandi Statue

It's a massive 2.2 m long statue of Nandi, the bull – vehicle of Hindu God Lord Shiva facing Vishvanath Temple. It's ultimate.

Vishnu's Boar

It's a 9th century statue of Varaha, the boar incarnation of Lord Vishnu. The beauty lies in the Bramanical gods and goddesses carved out all over.

Surasundaris

Surasundaris are graceful depictions of nymphs found all over Khajuraho temples. A women draped in wet Indian Saree, is what most people look upon when here.

Southern Group of Temples

Here, **Duladeo Temple** which is the youngest temple dating 1100 – 1150.

A lot of wood work has been used to make this temple unlike granite which has been used in Western group.

Next is **Chaturbhuja temple** including 2.7 m high four – armed statue Vishnu in its sanctum. There is also the **Bijamandala Temple** dedicated to Lord Shiva, with exquisite unfinished carvings and some of most elusive carvings.

Repetitions of sculptural work is seen in this section of temple, however the work is as explicit as in other parts of Khajuraho. The southern group of temples does see some sculptures which has been left finished – mostly because of less resources.

MAHARAJA SAUHALDEV

GS-I MEDIEVAL HISTORY

Context

- Prime Minister, Modi laid the foundation stone of Maharaja Suheldev Memorial at Bahraich, Uttar Pradesh .
- The Prime Minister also inaugurated the medical College building named after Maharaja Suheldev.

About Suhaldev

- Suhaldev or Suheldev is an Indian king from Shravasti.
- He defeated and killed Ghazi SalarMasud, purportedly a favourite nephew of Mahmud of Ghazni, in battle in Bahraich in 1034 AD.
- He is mentioned in the 17th century Persian-language historical romance Mirat-i-Masudi.

During the reign of Jahangir (r. 1605–1627), Abd-ur-Rahman Chishti penned Mirat-i-Masudi, a Persian hagiography in praise of Ghazi Miyan, a Turkic commander.

The Rajbhar and Pasi community, which has considerable clout in several districts of 'Purvanchal', consider themselves as King Suheldev's descendants.



ChittauraJheel

- ChittauraJheel, also known as Ashtwarkajheel is a lake in Uttar Pradesh.
- It is situated about 8 km from Bahraich city.
- A small river, Teri Nadi, flows from this lake.
- ChittauraJheel is a Hindu pilgrimage site. sipoa

Major Lakes in Uttar Pradesh

Lake	Location
BaruaSagar Tal	Jhansi
ChittauraJheel	Bahraich
MotiJheel	BAKHIRA
Gokul barrage	Gokul
Keetham Lake	Agra
Raja Ka Tal	Mahoba district
Ramgarh Tal Lake	Gorakhpur
Surha Tal	Ballia
GobindVallabh Pant Sagar	Sonbhadra district
Garha Tal Lake	Ballia

RASHTRIYA SANSKRITI MAHOTSAV

GS-I CULTURE & HERITAGE

Context

- The Governor of West Bengal Shri JagdeepDhankhar recently inaugurated the 11th RashtriyaSanskritiMahotsav at Cooch Behar Palace in West Bengal.

About

- RashtriyaSanskritiMahotsav is the flagship festival of Ministry of Culture.
- It is organized since 2015.

Details

- The RashtriyaSanskritiMahotsav aims to enhance the ties between people of diverse culture across various states .
- The Mahotsav witnesses active participation of Seven Zonal Culture Centres.
- The Centres have been playing a pivotal role to take the vibrant culture of India out to the masses instead of

confining to auditoria and galleries.

Significance

- It has been instrumental in showcasing, folk and tribal art, dance, music, cuisines & culture of one state in other states reinforcing the cherished goal of "Ek Bharat Shreshtha Bharat" Programme.
- At the same time it provides an effective platform to the artists and artisans to support their livelihood.
- This RSM assumes more significance as it is taking place as the country is emerging out of the COVID Pandemic which has severely impacted the cultural sector.
- Through this event the ministry endeavours to provide the much-needed support and assistance to the artists as well as the confidence that cultural functions can be now organized taking into account all necessary precautions.
- Renowned artists including local artists will be a part of this major festival.
- The RashtriyaSanskriti Mahotsav-2021 will cover a profusion of folk art forms and it would offer the chance to experience the best in established and emerging virtuosity.
- The RSM will reconnect the people, especially the youth, with their indigenous culture, its multi-faceted nature, magnificence, opulence and historical importance in the context of India as a Nation over the millennia.
- Kolkata is known as the "Cultural Capital of India"

Ek Bharat Shreshtha Bharat Programme

- Ek Bharat Shreshtha Bharat was on 31st October, 2015 on the occasion of the 140th birth anniversary of SardarVallabhbhai Patel.
- **Aim:** The Ek Bharat Shreshtha Bharat programme, aims to actively enhance interaction between people of diverse cultures living in different States and UTs in India, with the objective of promoting greater mutual understanding amongst them.
- **Mandate:** As per the programme, each year, every State/UT would be paired with another State/UT in India for reciprocal interaction between the people.
- **Significance:**
- It is envisaged through this exchange, that the knowledge of the language, culture, traditions and practices of different states will lead to an enhanced understanding and bonding between one another, thereby strengthening the unity and integrity of India.
- The States and UTs are to embark on a mission to enhance their cultural, academic and economic ties by entering into a wide range of mutual engagements with the paired States/UTs covering the spheres of music, drama, cuisine, language, history, tourism and other forms of exchange between the people. An indicative list of activities has been drawn up and circulated to the State Governments / UT Administrations and to the key Central Ministries. The States/ UTs may choose, evolve and develop their interaction pattern based on the suggested list as per operational suitability in the course of their interactions.
- All States and UTs will be covered under the programme. There will be pairing of States/UTs at national level and these pairings will be in effect for one year, or till the next round of pairings. The State/UT level pairings would be utilized for state level activities. District level pairings would be independent of the State level pairings. The activity will be very useful to link various States and Districts in annual programmes that will connect people through exchanges in areas of culture, tourism, language, education trade etc. and citizens will be able to experience the cultural diversity of a much larger number of States/UTs while realising that India is one.

PATACHITRA

GS-I CULTURE & HERITAGE

Context

- With politics intensifying in West Bengal ahead of the upcoming assembly elections, Patachitra artisans can be seen painting pictures of the Prime Minister of India and Chief Minister of West Bengal.

About Patachitra

- Patachitra or Pattachitra is a general term for traditional, cloth-based scroll painting.
- It is based in the eastern Indian states of Odisha and West Bengal.
- Patachitraartform is known for its **intricate details** as well as mythological narratives and folktales inscribed in it.

Origin and History of Patachitra

- In Sanskrit, Pattachitra literally means cloth painting; 'pata' (cloth), and 'chitra' (painting).
- This form of artwork was first conceptualized in Orissa and dates back to the 5th century.
- The artists who practiced this craft were known as Mohapatras or Maharanas.

Theme & Style

- The basic Patachitra tales revolved around their beliefs and ideologies.
- Hindu gods such as Krishna, Vishnu, Shiva, Hanuman, and Hindu goddesses such as Radha, Parvati and Sita were the main images used to depict tales and stories which were related to Hindu scriptures and texts.
- Apart from Orissa, this artwork is also widely practiced in West Bengal.
- The only difference is that in Orissa, patachitra art is done on Cotton fabric, whereas Silk is mostly used in Bengal.
- The theme of Oriya painting centres round the Jagannath and the Vaishnava cult.
- The Pattachitra style are mix of both folk and classical elements but leanings more towards folk forms.
- The dress style **has Mughal influences**. All of the poses have been confined to a few well-defined postures.
- These are not free from monotonous repetitions, though at times this is necessary to accentuate the narrative character of the style. The lines are bold and clean and angular and sharp.



Beautiful Radha and Krishna painting

The Patachitra Technique

- The patachitra when painted on cloth follows a traditional process of preparation of the canvas.
- First the base is prepared by coating the cloth with the soft, white, stone powder of chalk and glue made from tamarind seeds.
- This gives the cloth tensile strength and a smooth, semi-absorbent surface, allowing it to accept the paint.
- The artist **does not use a pencil or charcoal** for the preliminary drawings.
- It is a tradition to complete the borders of the painting first. The painter then starts making a rough sketch directly with the brush using light red and yellow.
- The main flat colors are applied next; the colors used are normally white, red, yellow, and black.
- The painter then finishes the painting with fine strokes of black brush lines, giving the effect of pen work.
- When the painting is completed it is held over a charcoal fire and lacquer is applied to the surface.
- This makes the painting water resistant and durable, besides giving it a shining finish.
- The materials used in the paint are from vegetable, earth, and mineral sources.
- Black is made out of lampblack, yellow from haritali stone, and red from hingal stone.
- White is prepared from crushed, boiled, and filtered shells.

Colors for the Patachitra

- The painters use vegetable and mineral colours without going for factory made poster colours. They prepare their own colours. White colour is made from the conch-shells by powdering, boiling and filtering in a very hazardous process.
- But this process gives brilliance and premanence to the hue.
- 'Hingula', a mineral colour, is used for red.
- 'Haritala', king of stone ingredients for yellow, 'Ramaraja' a sort of indigo for blue are being used.

- Pure lamp-black or black prepared from the burning of coconut shells are used.
- There was no blue either cobalt or ultramarine in the earlier colour schemes.
- The colours used in the Patta paintings are primarily bright colours, limited to red, yellow, indigo, black and white. The brushes that are used by these 'Chitrakaras' are also indigenous and are made of hair of domestic animals.
- A bunch of hair tied to the end of a bamboo stick make the brush.

THOLPAVAKOOTHU

GS-I CULTURE & HERITAGE

Context

- Padma Shri awardee Ramachandra Pulavar — the 12th generation exponent of Tholpavakoothu in his family — is taking the traditional form of shadow puppetry performed in temples to a wider audience.

About

- Tholpavakoothu is a form of shadow puppetry that is practiced in Kerala.
- It is performed using leather puppets as a ritual dedicated to Bhadrakali and is performed in Devi temples in specially built theatres called koothumadams.
- This art form is especially popular in the Palakkad, Thrissur and Malappuram districts of Kerala.
- The Puppetry originated in the ninth century AD and uses Kamba Ramayana as its basic text.
- The performance language uses Tamil, Sanskrit and Malayalam words.

Puppets

- The puppets used in Tholpavakoothu used to be made out of deerskin but are now typically made from goatskin.
- The puppets are painted in vegetable dyes, as these dyes last long. Some puppets can be as tall as four feet.
- The puppets are controlled using two sticks; the puppeteer holds the puppet in one hand while its limbs are manipulated using a thinner stick held in the puppeteer's other hand.

Puppeteers

- The lead puppeteer is usually a pulavar which is an honorific given to a puppeteer who is also a scholar.
- Pulavars undergo intensive training in puppetry and have a deep knowledge of Malayalam, Tamil and Sanskrit.
- Puppeteers have to study the Kamba Ramayana and be well read in the vedas and puranas, Ayurveda, and be trained in classical music.

Shadow Puppets in India

- India has the richest variety of types and styles of shadow puppets.
- Shadow puppets are flat figures. They are cut out of leather, which has been treated to make it translucent.
- Shadow puppets are pressed against the screen with a strong source of light behind it.
- The manipulation between the light and the screen make silhouettes or colourful shadows, as the case may be, for the viewers who sit in front of the screen.
- This tradition of shadow puppets survives in Orissa, Kerala, Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu.

Togalu Gombeyatta, Karnataka

- The shadow theatre of Karnataka is known as Togalu Gombeyatta.
- These puppets are mostly small in size.
- The puppets however differ in size according to their social status, for instance, large size for kings and religious characters and smaller size for common people or servants.

Tholu Bommalata, Andhra Pradesh

- Tholu Bommalata, Andhra Pradesh's shadow theatre has the richest and strongest tradition.

- The puppets are large in size and have jointed waist, shoulders, elbows and knees.
- They are coloured on both sides.
- Hence, these puppets throw coloured shadows on the screen.
- The music is dominantly influenced by the classical music of the region and the theme of the puppet plays are drawn from the Ramayana, Mahabharata and Puranas.

Ravanachhaya, Orissa

- The most theatrically exciting is the Ravanachhaya of Orissa.
- The puppets are in one piece and have no joints.
- They are not coloured, hence throw opaque shadows on the screen.
- The manipulation requires great dexterity, since there are no joints.
- The puppets are made of deer skin and are conceived in bold dramatic poses.
- Apart from human and animal characters, many props such as trees, mountains, chariots, etc. are also used.
- Although, Ravanachhaya puppets are smaller in size-the largest not more than two feet have no jointed limbs, they create very sensitive and lyrical shadows.

Other forms of Puppetry

Glove Puppets

- Glove puppets, are also known as sleeve, hand or palm puppets.
- The head is made of either papiermache, cloth or wood, with two hands emerging from just below the neck.
- The rest of the figure consists of a long flowing skirt.
- These puppets are like limp dolls, but in the hands of an able puppeteer, are capable of producing a wide range of movements.
- The manipulation technique is simple the movements are controlled by the human hand the first finger inserted in the head and the middle finger and the thumb are the two arms of the puppet.
- With the help of these three fingers, the glove puppet comes alive.
- The tradition of glove puppets in India is popular in Uttar Pradesh, Orissa, West Bengal and Kerala.
- In Uttar Pradesh, glove puppet plays usually present social themes, whereas in Orissa such plays are based on stories of Radha and Krishna.
- In Orissa, the puppeteer plays on the dholak with one hand and manipulates the puppet with the other.
- The delivery of the dialogues, the movement of the puppet and the beat of the dholak are well synchronised and create a dramatic atmosphere.

Pavakoothu, Kerala

- In Kerala, the traditional glove puppet play is called Pavakoothu.
- It came into existence during the 18th century due to the influence of Kathakali, the famous classical dance-drama of Kerala, on puppet performances.
- In Pavakoothu, the height of a puppet varies from one foot to two feet.
- The head and the arms are carved of wood and joined together with thick cloth, cut and stitched into a small bag.
- The face of the puppets are decorated with paints, small and thin pieces of gilded tin, the feathers of the peacock, etc.
- The manipulator puts his hand into the bag and moves the hands and head of the puppet.
- The musical instruments used during the performance are Chenda, Chengiloa, Ilathalam and Shankhathe conch.
- The theme for Glove puppet plays in Kerala is based on the episodes from either the Ramayana or the Mahabharata.

Rod Puppets

- Rod puppets are an extension of glove-puppets, but often much larger and supported and manipulated by rods from below. This form of puppetry now is found mostly in West Bengal and Orissa.

PutulNautch, West Bengal

- The traditional rod puppet form of West Bengal is known as PutulNautch.

- They are carved from wood and follow the various artistic styles of a particular region.
- In Nadia district of West Bengal, rod-puppets used to be of human size like the Bunraku puppets of Japan. This form is now almost extinct.
- The Bengal rod-puppets, which survive are about 3 to 4 feet in height and are costumed like the actors of Jatra, a traditional theatre form prevalent in the State.
- These puppets have mostly three joints. The heads, supported by the main rod, is joined at the neck and both hands attached to rods are joined at the shoulders.
- The technique of manipulation is interesting and highly theatrical.
- A bamboo-made hub is tied firmly to the waist of the puppeteer on which the rod holding the puppet is placed.
- The puppeteers each holding one puppet, stand behind a head-high curtain and while manipulating the rods also move and dance imparting corresponding movements to the puppets.
- While the puppeteers themselves sing and deliver the stylized prose dialogues, a group of musicians, usually three to four in numbers, sitting at the side of the stage provide the accompanying music with a drum, harmonium and cymbals.
- The music and verbal text have close similarity with the Jatra theatre.
- The Orissa Rod puppets are much smaller in size, usually about twelve to eighteen inches.
- They also have mostly three joints, but the hands are tied to strings instead of rods.
- Thus elements of rod and string puppets are combined in this form of puppetry. The technique of manipulation is somewhat different.
- The Orissa rod-puppeteers squat on the ground behind a screen and manipulate.
- Again it is more operatic in its verbal contents since impromptu prose dialogues are infrequently used. Most of the dialogues are sung.
- The music blends folk tunes with classical Odissi tunes. The music begins with a short piece of ritual orchestral preliminary called Stuti and is followed by the play.
- The puppets of Orissa are smaller than those from Bengal or Andhra Pradesh. Rod puppet shows of Orissa are more operatic and prose dialogues are seldom used.

Yampuri, Bihar

- The traditional Rod puppet of Bihar is known as Yampuri.
- These puppets are made of wood.
- Unlike the traditional Rod puppets of West Bengal and Orissa, these puppets are in one piece and have no joints.
- As these puppets have no joints, the manipulation is different from other Rod puppets and requires greater dexterity.

String Puppets

- India has a rich and ancient tradition of string puppets or marionettes.
- Marionettes having jointed limbs controlled by strings allow far greater flexibility and are, therefore, the most articulate of the puppets.
- Rajasthan, Orissa, Karnataka and Tamil Nadu are some of the regions where this form of puppetry has flourished.

Kathputli, Rajasthan

- The traditional marionettes of Rajasthan are known as Kathputli.
- Carved from a single piece of wood, these puppets are like large dolls that are colourfully dressed.
- Their costumes and headgears are designed in the medieval Rajasthani style of dress, which is prevalent even today.
- The Kathputli is accompanied by a highly dramatised version of the regional music.
- Oval faces, large eyes, arched eyebrows and large lips are some of the distinct facial features of these string puppets.
- These puppets wear long trailing skirts and do not have legs.
- Puppeteers manipulate them with two to five strings which are normally tied to their fingers and not to a prop or a support.

Kundhei, Orissa

- The string puppets of Orissa are known as Kundhei.
- Made of light wood, the Orissa puppets have no legs but wear long flowing skirts.
- They have more joints and are, therefore, more versatile, articulate and easy to manipulate.
- The puppeteers often hold a wooden prop, triangular in shape, to which strings are attached for manipulation.
- The costumes of Kundhei resemble those worn by actors of the Jatra traditional theatre.
- The music is drawn from the popular tunes of the region and is sometimes influenced by the music of Odissi dance.

Gombeyatta, Karnataka

- The string puppets of Karnataka are called Gombeyatta.
- They are styled and designed like the characters of Yakshagana, the traditional theatre form of the region.
- The Gombeyatta puppet figures are highly stylized and have joints at the legs, shoulders, elbows, hips and knees.
- These puppets are manipulated by five to seven strings tied to a prop. Some of the more complicated movements of the puppet are manipulated by two to three puppeteers at a time.
- Episodes enacted in Gombeyatta are usually based on Prasangas of the Yakshagana plays. The music that accompanies is dramatic and beautifully blends folk and classical elements.

Bommalattam, Tamil Nadu

- Puppets from Tamil Nadu, known as Bommalattam combine the techniques of both rod and string puppets.
- They are made of wood and the strings for manipulation are tied to an iron ring which the puppeteer wears like a crown on his head.
- A few puppets have jointed arms and hands, which are manipulated by rods.
- The Bommalattam puppets are the largest, heaviest and the most articulate of all traditional Indian marionettes.
- A puppet may be as big as 4.5 feet in height weighing about ten kilograms.
- Bommalattam theatre has elaborate preliminaries which are divided into four parts - Vinayak Puja, Komali, Amanattam and Pusenkanattam

Decline, Revival and Modern Puppetry

- The disappearance of puppet tradition began with the beginning of the colonial period.
- In the post-colonial period, the high-speed modernization wave that invested India put many of the puppetry traditions at risk of extinction.
- Therefore, government and private initiatives were taken to revive the form.
- Various organisations were set up to promote the puppet tradition as well as to pave the way for modern puppetry.
- The role of some individuals is noteworthy for their contribution to maintaining puppetry in modern times.
- In 1950, RaghunathGoswami established his Putulpuri studio (now The Puppets) in West Bengal where the first puppetry event was held.
- The event combined diverse types of puppets. Madhulal Master founded the Indian Institute of Puppet in Bombay.
- In Udaipur, Devilal Samar founded the BharathyaLok Kala Mandal Centre, bringing together a museum, a school, and a puppet theatre.
- The birth of modern troupes and the opening to the international scene created new contexts for traditional puppetry to flourish.
- New styles of puppetry emerged and shaped into a redefined urban puppet theatre.
- Several puppetry festivals also started being organized to offer stage to both traditional and modern puppet troupes.
- Hence, puppets remain a socio-cultural document, the cultural text of the times.

Context

- Recently, Ravidas Jayanti, the birth anniversary of Sant Ravidas, was celebrated across the country.

About Ravidas Ji

- Sant Ravidas was a 14th-century saint and founder of the Bhakti movement in North India.
- He was also the **founder of Ravidassia religion** during the 15th to 16th century CE.
- Scholars believe he was born in 1450 CE, **in Chamar caste**.
- Ravidas was the disciple of the Brahmin bhakti-poet Ramananda. He is traditionally considered as Kabir's younger contemporary.
- Ravidas's devotional Verses were included in the Sikh scriptures known as Guru Granth Sahib.
- He taught removal of social divisions of caste and gender, and promoted unity in the pursuit of personal spiritual freedoms.
- Literary works:** The Adi Granth of Sikhs, and Panchvani of the Hindu warrior-ascetic group Dadupanthis are the two oldest attested sources of the literary works of Ravidas.
- In the Adi Granth, forty of Ravidas's poems are included, and he is one of thirty six contributors to this foremost canonical scripture of Sikhism.
- Ravidas's poetry covers topics such as the definition of a just state where there are no second or third class unequal citizens, the need for dispassion, and who is a real Yogi.

Beliefs of the Ravidassia Religion

- Teachings of Ravidas represent an offshoot of the Bhakti movement of the fifteenth century, a religious renaissance in India. Ravidas taught the following principles:
 - The oneness, omnipresence and omnipotence of God.
 - The human soul is a particle of God.
 - The rejection of the notion that God cannot be met by lower castes.
 - To realize God, which is the goal of human life, man should concentrate on God during all rituals of life.
 - The only way of meeting with God (moksha) is to free the mind from duality.

Significance

- Guru Ravidas was a great saint and a religious reformer, who devoted his life to serve humanity.
- He worked for promoting the principles of social harmony and brotherhood throughout his life.
- He called upon people to resolve to take inspiration from his teachings and strive for strengthening fraternity in the society for the benefit of humanity.
- The messages given by Sant Ravidas on equality, goodwill and compassion centuries ago, will inspire the countrymen for ages.

HEAT WAVE

GS-I GEOGRAPHY

Context

- Several parts of north India reeled under an intense heatwave.
- Many districts in Rajasthan, Haryana, Uttar Pradesh, Madhya Pradesh posted temperatures over 45 degrees Celsius or five degrees above what is normal.

What is a Heat Wave?

- A heat wave is a period of abnormally and uncomfortably hot and usually humid weather.
- According to the World Meteorological, a heat wave is when the daily maximum temperature for more than five consecutive days exceeds the average maximum temperature by 9 degrees Fahrenheit.

Heat wave Criteria:

- In India, Heat wave is considered if maximum temperature of a station reaches atleast 40 degree C or more for Plains and at least 30 degree C or more for Hilly regions.

a) Based on Departure from Normal

Heat Wave: Departure from normal is 4.5 degree C to 6.4 degree C

Severe Heat Wave: Departure from normal is >6.4 degree C

b) Based on Actual Maximum Temperature

Heat Wave: When actual maximum temperature ≥ 45 degree C

Severe Heat Wave: When actual maximum temperature ≥ 47 degree C

c) Warm Night

It should be considered only when maximum temperature remains 40 degree C or more. It may be defined based on departures or actual minimum temperatures as follows:

Warm night: minimum temperature departure is 4.5 degree C to 6.4 degree C

Very warm night: minimum temperature departure is >6.4 degree C

d) Criteria for describing Heat Wave for coastal stations

When maximum temperature departure is 4.5 degree C or more from normal, Heat Wave may be declared provided actual maximum temperature is 37 degree C or more.

How do heat waves form?

- A heat wave is formed when static high pressure generated in the upper atmosphere over a region for several days up to several weeks.
- This static high pressure generates a hot mass of air, which is stagnant for many days and week, which resulted the trapping of more heat that also reduce the

MERCURIAL METER

Some of the new and cross-country benchmarks are listed below. Earlier, they used to vary from state to state

HEAT WAVES

Based on departure from normal



Heat wave: 4.5°C to 6.4°C above normal maximum

Severe heat wave: More than 6.4°C above normal maximum

Based on actual maximum temperature

Heat wave: Temperature equal or greater than 45°C

Severe heat wave: Equal or greater than 47°C

Warm night: (Will apply only when maximum temperature remains 40°C or more) Minimum temperature departure is 4.5°C to 6.4°C

Very warm night: Minimum temperature departure is above 6.4°C

COLD WAVES

Based on departure from normal



Cold wave: 4.5°C to 6.4°C below normal minimum

Severe cold wave: Anything more than 6.4°C below normal minimum

Based on actual minimum temperature

Cold wave: Minimum temperature is 4°C or lower

Severe cold wave: Minimum temperature is 2°C or lower

Cold day: (Applies when minimum temperature is 10°C or lower in plains and 0°C or lower in hilly regions) Maximum temperature departure is minus 4.5°C to minus 6.4°C

Very cold day: Maximum temperature departure is greater than minus 6.4°C

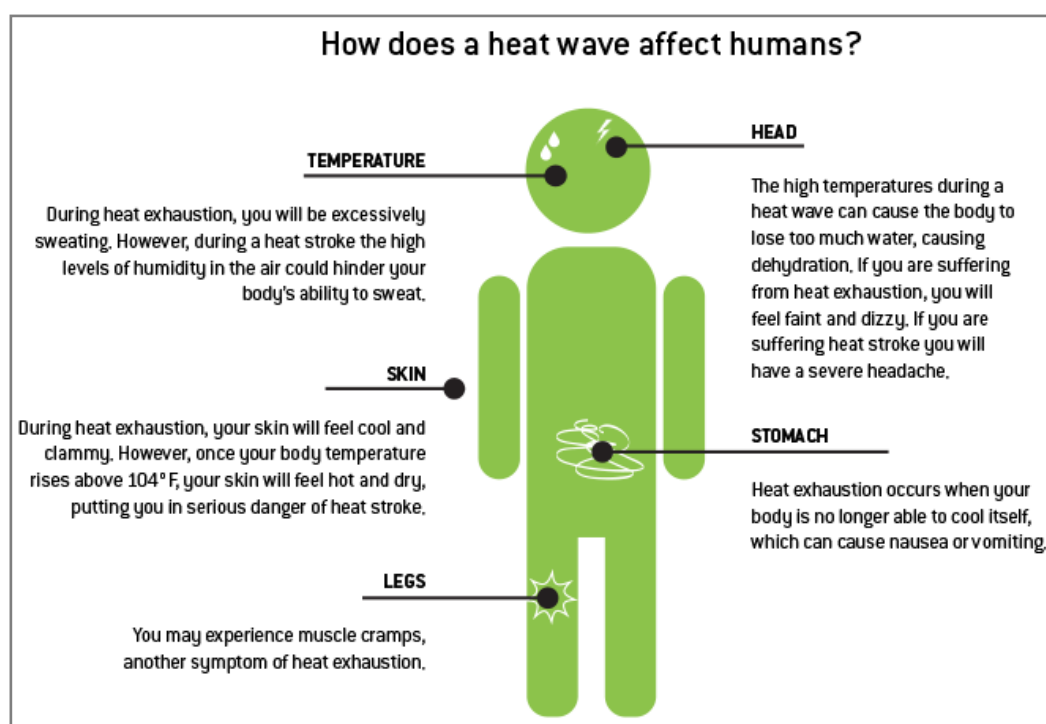
convection currents.

- The high pressure acts as a barrier and forces the mass of air to sink to the surface of the land that prevents heat to rise.
- This hot mass of air accumulates only heat and humidity without any trace of precipitation that causes abnormally high temperatures. It is very often during the summer season, from May to November in the northern hemisphere.
- The seal keeps out convection currents that form clouds and eventually rain clouds, both of which would help the area affected cool off.
- Instead the result is a heat wave that has both high heat and high humidity near the ground.
- These heat waves can last from days to weeks.

Implications of Heat Waves

Social impacts

- Extreme heat can lead to heat-related illness and death, particularly in elderly populations, the poor, outdoor workers, and in urban areas.
- Heat waves exacerbate the urban heat island effects, amplifying temperatures in built environments, and resulting in poorer air quality due to the creation of ozone that negatively impacts health.
- Heat-related mortality is expected to be higher in cities, particularly those characterized by high population density, inequalities, limited access to health care, high pollution levels and fewer green spaces.



Economic impacts

- Multiple areas of the economic sector experience reduced worker productivity during heatwaves, especially agriculture and construction.
- Globally, 2% of total working hours is projected to be lost every year, either because it is too hot to work or because workers have to work at a slower pace.
- Lost productivity from heat stress at work, particularly in developing countries, is expected to be valued at \$4.2 trillion dollars per year by 2030, driving more inequality.
- The agricultural sector, where 940 million people earn their livelihood, is set to be harder hit by hotter temperatures, pushing workers, crops and livestock past their physiological heat and drought tolerances.
- This will result in lost labour, in smaller harvests for farmers, higher prices for consumers, and negative impacts on livelihoods.
- A World Bank report suggests that by 2050, about 600 million Indians will live in places that could experience loss of living standards, which could cost 2.8% of the GDP, stalling efforts to pull large parts of the population out of poverty.
- Increasing energy demand for cooling also comes as an extensive economic cost to residents, businesses, and governments.

- With these extreme heat events, the need for access to cooling should be viewed as a basic necessity – not just for health and productivity reasons but, in some cases, even for survival.

Ecological impacts

- Heatwaves, without concomitant increases in precipitation, can lead to water shortages and increased stress for plants, particularly in arid regions.
- This has the effect of reducing plant growth, the basis of energy production and the food chain, with an overall drying-out of the landscape.
- For example, the 2003 European heatwave resulted in a 10% loss in glacier mass in Europe, which was five-times more than the average annual loss.
- Similar impacts were reported for the French Alps in 2019.
- Over time, such deep permafrost warming and thawing could cause landslides and rock falls, continuing the negative ecological impacts.

How long can a heatwave spell last?

- A heatwave spell generally lasts for a minimum of four days.
- On some occasions, it can extend up to seven or ten days.
- The longest recorded heatwave spell, in recent years, was between 18 – 31 May 2015.
- This spell had severely affected parts of West Bengal along with Odisha, Andhra Pradesh, and Telangana.
- A similar spell in 2014 was reported during June 2 – June 11.

Does all of India experience heatwave conditions?

- No. Heatwaves are common over the Core Heatwave Zone (CHZ) – Rajasthan, Punjab, Haryana, Chandigarh, Delhi, West Madhya Pradesh, Uttar Pradesh, Chhattisgarh, Orissa, Vidarbha in Maharashtra, parts of Gangetic West Bengal, Coastal Andhra Pradesh and Telangana, as categorised by India Meteorological Department.
- Several recent studies indicate that CHZ experience more than six heatwave days per year during these four months.
- Many places in the northwest and cities along southeastern coast report eight heatwave days per season.
- However, the regions in the extreme north, northeast and southwestern India are lesser prone to heatwaves.

MoES Report

- The “Assessment of Climate Change over the Indian Region” Report prepared by the Union Ministry of Earth Sciences has cautioned that by the end of 2100, the “frequency of summer [April–June] heat waves over India is projected to be three to four times higher” and the “average duration of heatwave events is also projected to approximately double.”
- The impact of heatwave stress is expected across India but particularly over the densely populated Indo-Gangetic river basin.

IPCC Report

- According to The Intergovernmental Panel on Climate Change (IPCC Special Report on Oceans and Cryosphere in a Changing Climate) India will witness marine heat waves, extreme El Niños, and extremely severe cyclones in response to increasing carbon emissions due to continued burning of fossil fuels.

Heatwave levels

- Heatwave warning levels and the vigilance required are assigned colours – Yellow (level 2), Orange (level 3) and Red (level 4).
- These heatwave warning levels are forecast based on weather forecasts, complemented to a frequency analysis of 30 years of data on mortality rate with weather indicators.
- The information provided by health services are also a part of the forecasts.

Evaluating Heat Action Plans

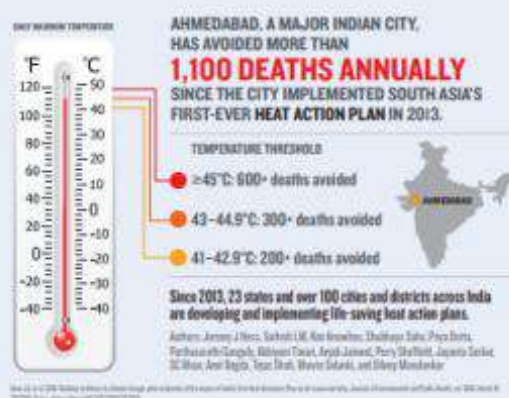
As recent study found that Ahmedabad, one of India's largest cities, avoided an estimated 1,190 deaths a year after implementing the country's first Heat Action Plan (or "HAP") in 2013. This plan included a heat wave early warning system, public outreach to explain heat-health risks, and trainings aimed at health professionals who diagnose and treat heat-related illnesses.

The study, "Building resilience to climate change: pilot evaluation of the impact of India's first heat action plan on all-cause mortality" jointly authored by public health and municipal authorities in India, academic environmental health researchers in the United States, and NRDC, was published in the peer-reviewed scientific Journal of Environmental and Public Health (JEPH).⁷

By comparing citywide summertime death rates before and after the HAP was launched, researchers found that:

- The HAP was associated with a reduced death rate on hot days. Ahmedabad, a major Indian city, avoided more than 1100 deaths each year after it implemented the region's first-ever Heat Action Plan in 2013.
- The biggest decrease in death rates was on the hottest days. Mortality rates on the hottest days (at or above 45°C (113°F) daily maximum temperature) dropped by 27% after the HAP was implemented, relative to pre-HAP years.
- While very hot days were still dangerous, the risks were much lower post-HAP. Before the HAP, death rates more than doubled on days when the maximum temperature reached 47°C (116°F), compared to rates at 40°C (104°F). After the HAP was implemented, death rates were only 25% higher on days when maximum temperatures reached 47°C (116°F) compared to death rates at 40°C (104°F).

Extreme heat warnings, a key part of Ahmedabad's HAP, were associated with decreased summertime all-cause mortality rates, with the largest declines at the highest temperatures.



MOUNT SUMERU VOLCANO

GS-I GEOGRAPHY

Context

- Recently, Indonesia's Mount Sumeru Volcano erupted.

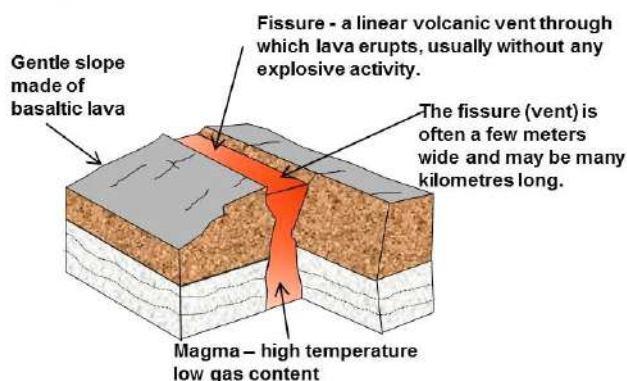
Mount Sumeru

- Mount Sumeru also known as "The Great Mountain" is the highest volcano in Java.
- It is also one of the most active Volcanoes.
- It lies at the southern end of a volcanic massif extending north to the Tengger caldera.
- It is known for its regular ash explosions that typically occur at intervals of 10-30 minutes.

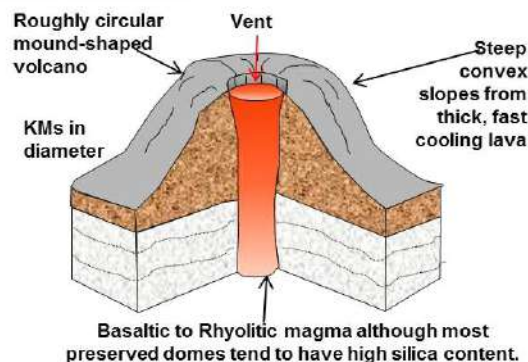
Types of Volcanoes

Volcano Type	Characteristics	Examples	Simplified Diagram
Flood or Plateau Basalt	Very liquid lava; flows very widespread; emitted from fractures	Columbia River Plateau	
Shield Volcano	Liquid lava emitted from a central vent; large; sometimes has a collapse caldera	Larch Mountain, Mount Sylvania, Highland Butte, Hawaiian volcanoes	
Cinder Cone	Explosive liquid lava; small; emitted from a central vent; if continued long enough, may build up a shield volcano	Mount Tabor, Mount Zion, Chamberlain Hill, Pilot Butte, Lava Butte, Craters of the Moon	
Composite or Stratovolcano	More viscous lavas, much explosive (pyroclastic) debris; large, emitted from a central vent	Mount Baker, Mount Rainier, Mount St. Helens, Mount Hood, Mount Shasta	
Volcanic Dome	Very viscous lava; relatively small; can be explosive; commonly occurs adjacent to craters of composite volcanoes	Novarupta, Mount St. Helens Lava Dome, Mount Lassen, Shastina, Mono Craters	
Caldera	Very large composite volcano collapsed after an explosive period; frequently associated with plug domes	Crater Lake, Newberry, Kilauea, Long Valley, Medicine Lake, Yellowstone	

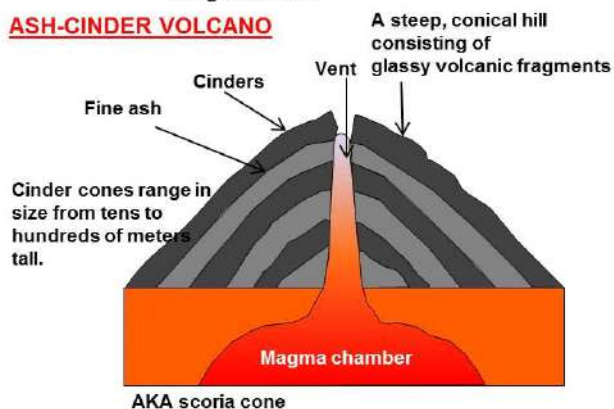
FISSURE VOLCANO



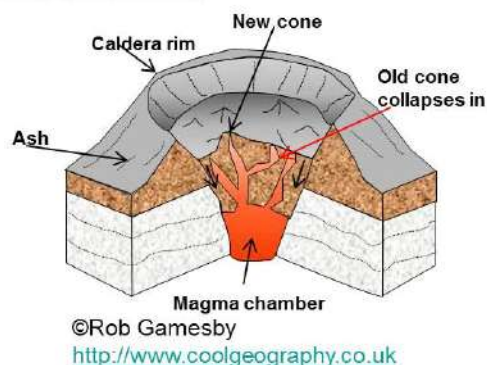
DOMES VOLCANO

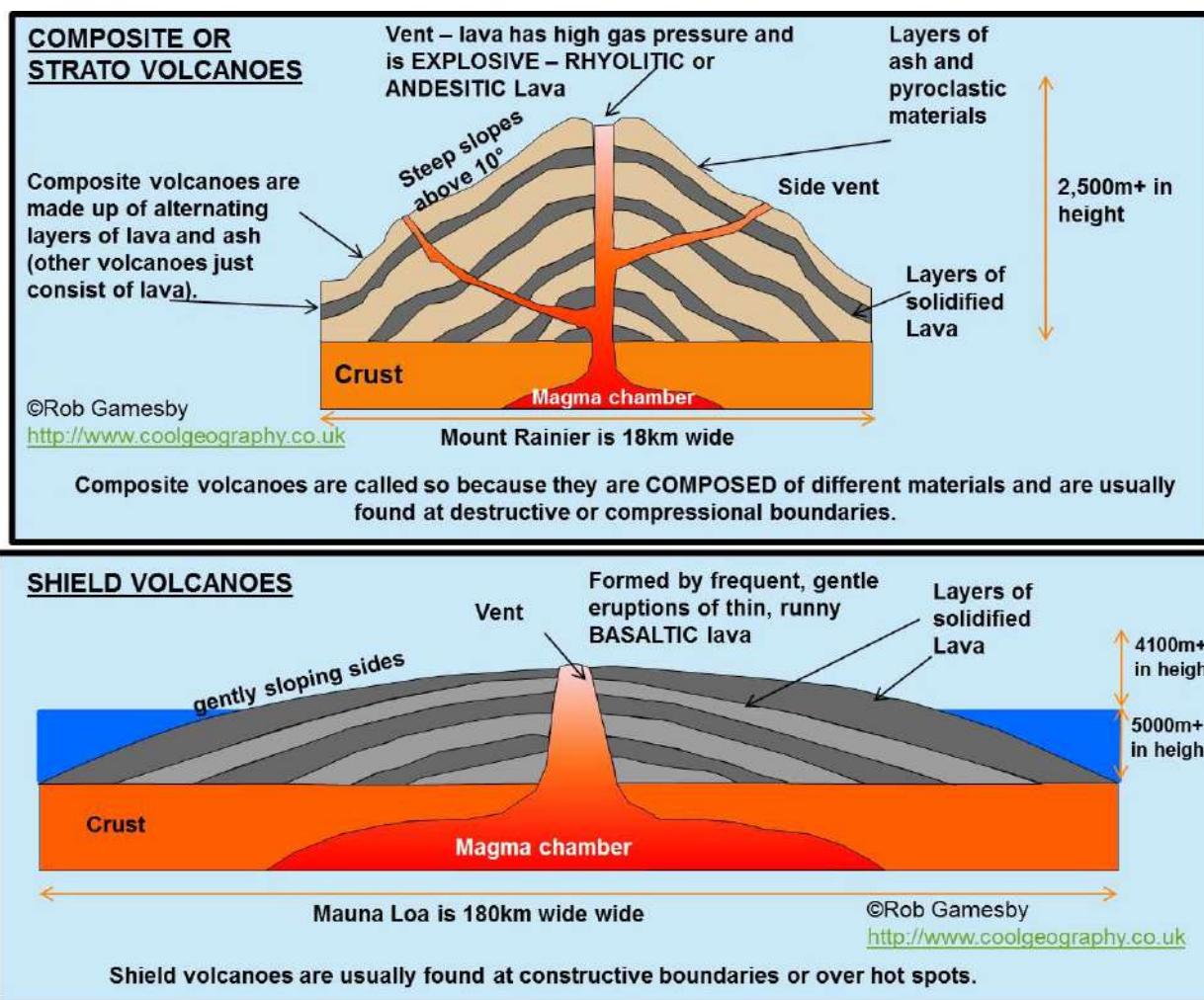


ASH-CINDER VOLCANO



CALDERA VOLCANO





Why is Indonesia prone to Volcanoes?

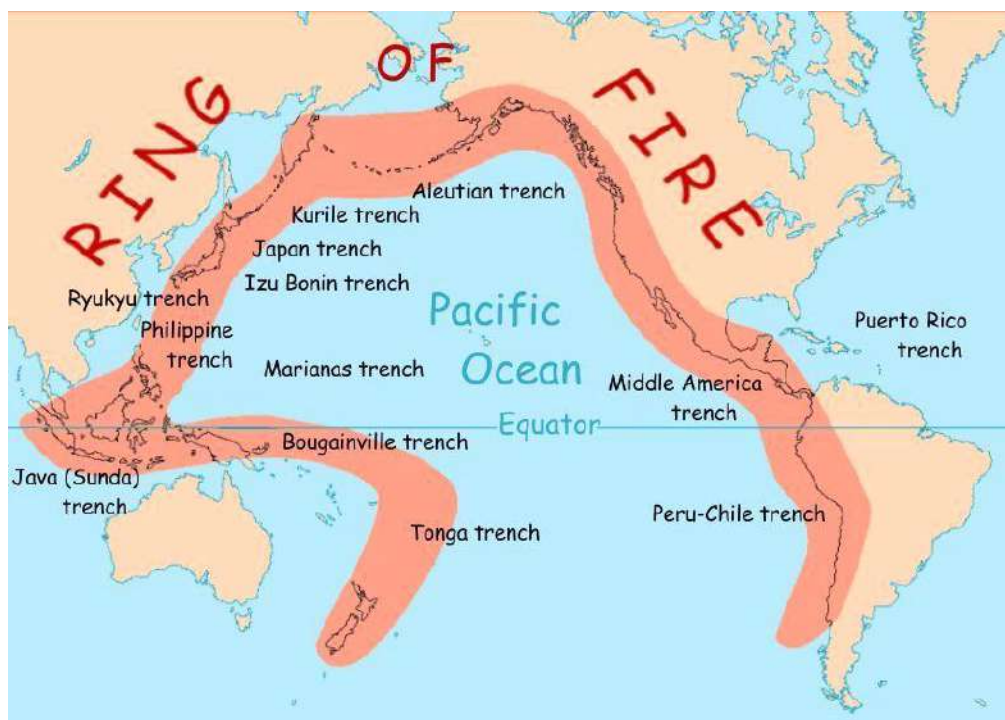
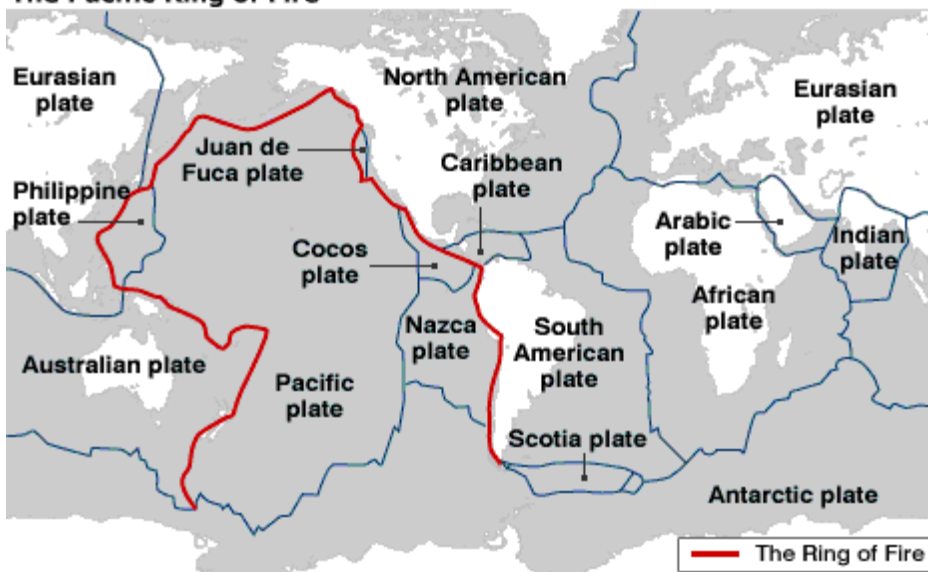
- Indonesia is home to many active volcanoes, due to its position on the “Ring of Fire”, or the Circum-Pacific Belt, which is an area along the Pacific Ocean characterised by active volcanoes and frequent earthquakes.
- The Ring of Fire is home to about 75 per cent of the world’s volcanoes and about 90 per cent of its earthquakes.

Pacific Ring of Fire

- It is a region around much of the rim of the Pacific Ocean where many volcanic eruptions and earthquakes occur.
- The Ring of Fire is a horseshoe-shaped belt about 40,000 km (25,000 mi) long and up to about 500 km (310 mi) wide.
- The Ring of Fire includes the Pacific coasts of South America, North America and Kamchatka, and some islands in the western Pacific Ocean.
- The Ring of Fire is a direct result of plate tectonics: specifically the movement, collision and destruction of lithospheric plates under and around the Pacific Ocean.
- The collisions have created a nearly continuous series of subduction zones, where volcanoes are created and earthquakes occur.
- Consumption of oceanic lithosphere at these convergent plate boundaries has formed oceanic trenches, volcanic arcs, back-arc basins and volcanic belts.
- The Ring of Fire is not a single geological structure.
- Volcanic eruptions and earthquakes in each part of the Ring of Fire occur independently of eruptions and earthquakes in the other parts of the Ring.
- The Ring of Fire contains approximately 850–1,000 volcanoes that have been active during the last 11,700 years (about two-thirds of the world's total).

- The four largest volcanic eruptions on Earth in the last 11,700 years occurred at volcanoes in the Ring of Fire.
- More than 350 of the Ring of Fire's volcanoes have been active in historical times

The Pacific Ring of Fire



Major Volcanoes of Indonesia

(with eruptions since 1900 A. D.)



Topinka, USGS/CVO, 2001; basemap modified from: CIA map, 1997; volcanoes from: Simkin & Siebert, 1994

ASTERIOD

GS-I GEOGRAPHY

Context

- The International Astronomical Union (IAU) has named an asteroid, discovered in 2006, after Indian classical singer Pandit Jasraj.





A mass of ice, rock and dust drifting in space that often has a tail, which grows as it gets closer to the Sun. The tail is made up of dust and various materials ionized by solar energy.

Comet

A body made up of rocks, both metallic and non-metallic, that orbits the Sun, usually found in the asteroid belt between Mars and Jupiter. They range in size from a few centimetres to nearly a thousand kilometres across.

Asteroid

A solid body, often an asteroid fragment, typically larger than a grain of sand and smaller than one metre across, flying through interplanetary space.

Meteoroid

A meteoroid that enters Earth's atmosphere becomes a meteor. It burns up as it travels through the atmosphere, producing a streak of light. A meteor can appear as a lone object (shooting star) or in clusters (meteor shower).

Meteor

A meteor that burns as it travels through our atmosphere, leaving behind a very bright streak of light. Sometimes, it is even visible during the day. This rather rare phenomenon is the result of a meteoroid that is larger or denser than usual.

Fireball

When a meteoroid does not completely burn up as it travels through the atmosphere, the fragment found on the ground is called a meteorite.

Meteorite

SHATOOT DAM

GS-I GEOGRAPHY

Context

- Recently the signing ceremony of the Memorandum of Understanding for the construction of the Lalandar [Shatoot] Dam in Afghanistan took place.
- The project is a part of the New Development Partnership between India and Afghanistan.

Significance of Shatoot Dam

- The Lalander Dam would meet the safe drinking water needs of Kabul City, provide irrigation water to nearby areas, rehabilitate the existing irrigation and drainage network.
- It will also aid in flood protection and management efforts in the area, and also provide electricity to the region.
- The signing of the MoU on Lalandar Dam is a reflection of India's strong and long-term commitment towards the socio-economic development of Afghanistan and the enduring partnership between our two countries.
- As a part of our Development Cooperation with Afghanistan, India has completed more than 400 projects covering all 34 provinces of Afghanistan.

Other Dams

AIFD

- Afghan-India Friendship Dam (AIFD), formerly Salma Dam, is a hydroelectric and irrigation dam project located on the Hari River in Herat Province of western Afghanistan.
- This project is funded and constructed by the Government of India as a part of the Indian aid project.
- The hydroelectric plant produces 42 MW of power in addition to providing irrigation for 75,000 hectares of farmland.

DHAULIGANGA

GS-I GEOGRAPHY

Context

- Recently, a portion of the Nanda Devi glacier broke off in Uttarakhand's Chamoli district, triggering an avalanche and a deluge in the Alaknanda river system that washed away hydroelectric stations and trapped more than 100 labourers.

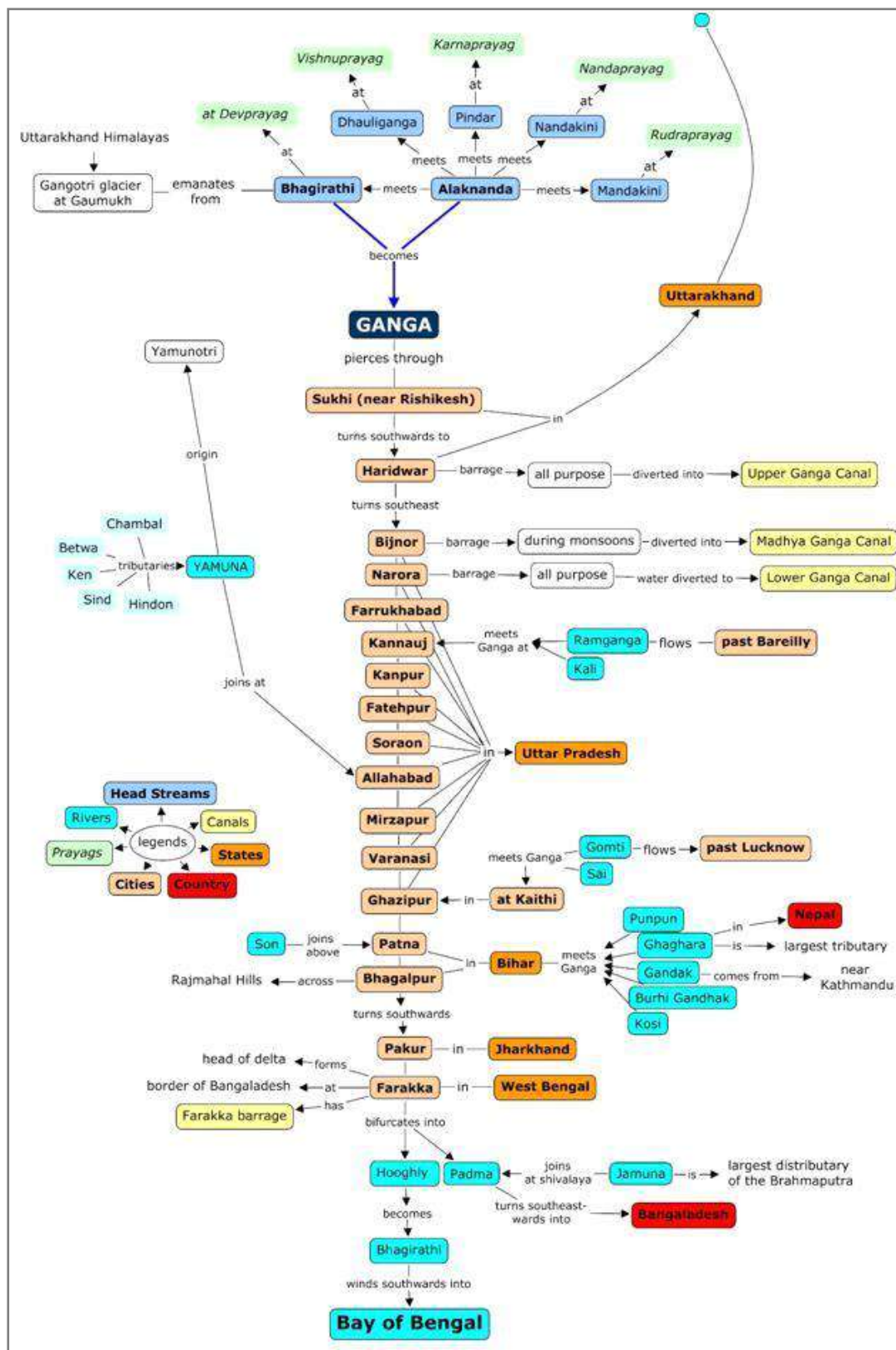
About the River

- The Dhauliganga is a turbulent Himalayan river which rises in the border regions of India and China and flows south into the Garhwal region of Uttarakhand.
- Dhauliganga is one of the important tributaries of Alaknanda, the other being the Nandakini, Pindar, Mandakini and Bhagirathi.
- Alaknanda is the major source stream of the Ganges river.



Course of the River

- Dhauliganga rises in the vicinity of the Niti Pass in the border regions between Garhwal and southwestern Tibet.
- It basically originates from **Vasudhara Tal**, the largest glacial lake in Uttarakhand.
- It then flows southwards until it meets the Rishiganga on its left bank at Rini, in the vicinity of Tapovan in Chamoli district.
- It then flows westwards until it meets the Alaknanda at Vishnuprayag and terminates—the confluence just upstream of the city of Joshimath.
- Dhauliganga flows in a meandering course, which finally takes it through the Nanda Devi National Park.



SADIYA EARTHQUAKE

GS-I GEOGRAPHY

Context

- Scientists have found the first geological evidence of a huge earthquake in the North Eastern region that had wreaked massive devastation in 1697.
- Known as the 'Sadiya earthquake' in historical references, the quake is said to have flattened most of Sadiya town in Assam and region around it.

Seismic Zones of India

- Seismic zones in Indian subcontinent is divided into four seismic zones (II, III, IV, and V) based on scientific inputs relating to seismicity, earthquakes occurred in the past and tectonic setup of the region.
- Previously, earthquake zones divided into five zones with respect to the severity of the earthquakes.
- But Bureau of Indian Standards has grouped the country into four seismic zones; the first and second seismic zones were unified.

Seismic Active Zone

Seismic Zone Map of India: -2002

About **59 percent** of the land area of India is liable to seismic hazard damage

Zone	Intensity
Zone V	Very High Risk Zone Area liable to shaking Intensity IX (and above)
Zone IV	High Risk Zone Intensity VIII
Zone III	Moderate Risk Zone Intensity VII
Zone II	Low Risk Zone VI (and lower)

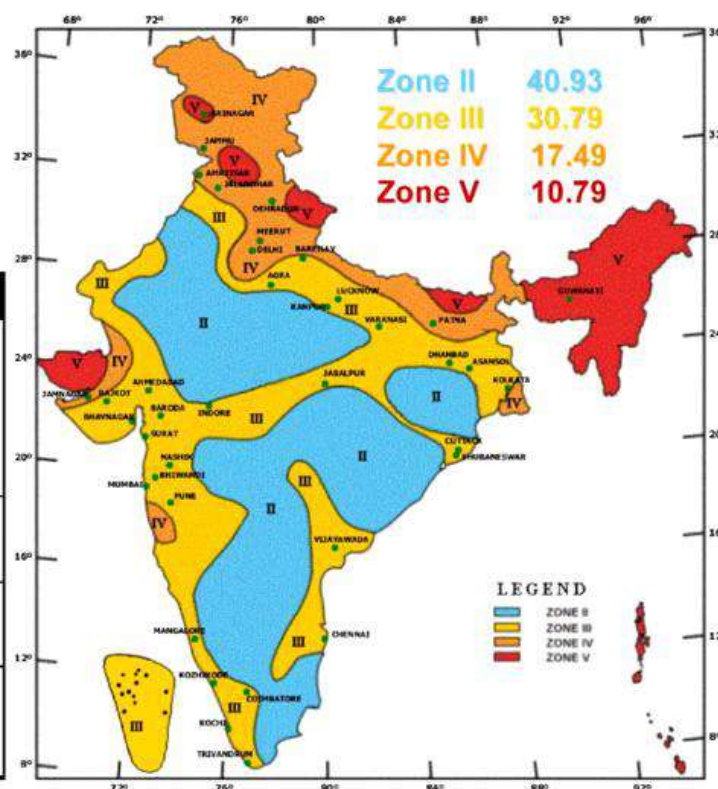


Fig. 1 Seismic zonation and intensity map of India

Seismic Zone II

- Area with minor damage (i.e., causing damages to structures with fundamentally periods greater than 1.0 second) earthquakes corresponding to intensities V to VI of MM scale (MM – Modified Mercalli Intensity scale). It covers the areas which are not covered by other three seismic zones discussed below.

Seismic Zone III

- Moderate damage corresponding to intensity VII of MM scale. It comprises Kerala, Goa, Lakshadweep islands, remaining parts of Uttar Pradesh, Gujarat and West Bengal, Parts of Punjab, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, Maharashtra, Orissa, Andhra Pradesh, Tamilnadu and Karnataka.

Seismic Zone IV

- Major damage corresponding to intensity VII and higher of MM scale. It covers remaining parts of Jammu and Kashmir and Himachal Pradesh, National Capital Territory (NCT) of Delhi, Sikkim, Northern Parts of Uttar Pradesh, Bihar and West Bengal, parts of Gujarat and small portions of Maharashtra near the west coast and Rajasthan.

Seismic Zone V

- Area determines by pro seismically of certain major fault systems. It is seismically the most active region, and comprises entire northeastern India, parts of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Rann of Kutch in Gujarat, part of North Bihar and Andaman & Nicobar Islands.
- Earthquake zone V is the most vulnerable to earthquakes, where historically some of the country's most powerful shock have occurred. Earthquakes with magnitudes in excess of 7.0 have occurred in these areas, and have had intensities higher than IX.

Richter Scale

- The Richter scale – also called the Richter magnitude scale or Richter's magnitude scale – is a measure of the strength of earthquakes, developed by Charles Francis Richter and presented in his landmark 1935 paper, where he called it the "magnitude scale".
- This was later revised and renamed the local magnitude scale, denoted as M_L or m_L .

DHUBRI PHULBARI BRIDGE

GS-I GEOGRAPHY

Context

- Recently, PM Modi laid the foundation stones of Dhubri-Phulbari Bridge connecting Assam and Meghalaya.
- Another Bridge called Majuli-Jorhat bridge is being constructed. It will connect Nematighat to Kamlabarighat on the Brahmaputra river.

Significance

- The 19-km-long Dhubri-Phulbari bridge will reduce travel time between Assam and Meghalaya by 6 hours.
- It will reduce distance between Phulbari in west Meghalaya and Dhubri west Assam from 200 km to 19 km.

Major Bridges on River Brahmaputra

DholaSadiya Bridge

- DholaSadiya Bridge or Bhupen Hazarika Bridge across the mighty Brahmaputra River (Lohit River, a major tributary of the Brahmaputra River) is the longest bridge in India and become operational in 2017. The 9.15 kilometres long road bridge connect the states of Assam and Arunachal Pradesh.

Bogibeel Bridge, Dibrugarh

- Bogibeel Bridge across the Brahmaputra river in Dibrugarh is the longest road and rail bridge in India. The 4.94 kilometres long road cum rail bridge will connect Dhemaji district and Dibrugarh district of Assam.
- This is also Asia's 2nd longest rail-cum-road bridge, longest combined rail and road bridge in India and second longest bridge in Assam after Bhupen Hazarika Setu

Saraighat Bridge

- Saraighat Bridge in Guwahati is the first rail cum road bridge over mighty Brahmaputra river in Assam. The Saraighat Bridge over the river Brahmaputra links North East region with the rest of the country.


Kolia Bhomora Setu

- KoliaBhomoraSetu is a 3.15km long road bridge over the Brahmaputra river near Tezpur, connecting Sonitpur

with Nagaon. The bridge is one of the most important link between the North Eastern states and rest of India.

Naranarayan Setu

- NaranarayanSetu is another important road cum rail bridge over the Brahmaputra river in Assam, connects Jogighopa with Pancharatna.



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Context

- Investing in human capital through interventions in **nutrition, health, and education is critical for sustainable growth**. But **India's human capital indicators remain low**.
- In the World Bank's **Human Capital Index**, the country ranked **116th**.
- The **National Family Health Survey-5 for 2019-20** shows that malnutrition indicators stagnated or declined in most States.
- The **National Achievement Survey 2017** and the **Annual Status of Education Report 2018** show poor learning outcomes.

Initiatives

- Several government initiatives have been launched to address these issues. The National Health Policy of 2017 highlighted the **need for interventions to address malnutrition**.
- On the basis of NITI Aayog's National Nutrition Strategy, the Poshan Abhiyaan was launched, as part of the Umbrella Integrated Child Development Scheme.
- The latest Union Budget has announced a '**Mission Poshan 2.0**' and the **Samagra Shiksha Abhiyan** has been the Centre's flagship education scheme since 2018.
- However, India spends **just 4% of its GDP as public expenditure on human capital** (around 1% and 3% on health and education respectively) – one of the lowest among its peers.

Poor Decentralization

- International experience suggests that one reason why these interventions are not leading to better outcomes may be **India's record with decentralisation**.
- Globally, there has been a gradual shift in the distribution of expenditures and revenue towards sub-national governments.
- These trends are backed by **studies demonstrating a positive correlation** between decentralisation and human capital.
- In recent years, India has taken some **steps towards decentralisation**.
- The **Fourteenth Finance Commission** increased the States' share in **tax devolution from 32% to 42%**, which was effectively retained by the Fifteenth Finance Commission.
- In India, three tiers of government are envisaged, with the Constitution dividing powers between the first two tiers – the **Centre and the States**, as per the three lists under the Seventh Schedule.
- While public health is in the State List, the broader subject of **economic and social planning is in the Concurrent List**.
- In 1976, **education was shifted from the State List to the Concurrent List** through the 42nd Amendment. The placement of a subject in the Concurrent List, in effect, indicates the **presence of overarching considerations that warrant the Centre's involvement**.
- Fiscally, while the Constitution assigns the bulk of expenditure responsibilities to States, the Centre has major revenue sources.
- To address this vertical imbalance, the Constitution provides for **fiscal transfers through tax devolution and grants-in-aid**.
- In addition, the Centre can make '**grants for any public purpose**' under Article 282 of the Constitution.

Several imbalances

- The 73rd and 74th Amendments bolstered **decentralisation by constitutionally recognising panchayats and municipalities** as the third tier and listing their functions in the Eleventh and Twelfth schedules, respectively.
 - These include **education, health and sanitation, and social welfare for panchayats, and public health and socio-economic** development planning for municipalities.
- However, the Constitution lets **States determine how they are empowered**, resulting in vast disparities in the roles played by third-tier governments.
 - Despite some shifts towards greater State autonomy in many spheres, the **centralised nature of India's fiscal architecture has persisted**.
- **Centrally Sponsored Schemes** have formed a sizable chunk of intergovernmental fiscal transfers over the years, comprising almost **23% of transfers to States in 2021-22**.
- **Article 282** of the Constitution is listed as a '**Miscellaneous Financial Provision**', unlike Articles 270 and 275, which fall under 'Distribution of Revenues between the Union and the States'.
 - Constitutional expert Nani Palkhivala had characterised it as more of a **residuary power, opening that grants-in-aid under Article 275** as per Finance Commission recommendations are the more appropriate, regular route. The Supreme Court in *Bhim Singh vs Union of India* had observed that Article 282 is normally meant for special, temporary or ad hoc schemes.
- Further, third-tier governments are not fiscally empowered either. The **collection of property tax, a major source of revenue for third-tier governments**, is very low in India (under 0.2% of GDP, compared to 3% of GDP in some other nations).
 - The Constitution envisages **State Finance Commissions (SFCs) to make recommendations for matters such as tax devolution and grants-in-aid to the third tier**.
 - However, many States have **not constituted or completed these commissions on time**, and hence, the Fifteenth Finance Commission has recommended no grants after March 2024 to any State that does not comply with the constitutional provisions pertaining to SFCs.

Towards a solution

- To begin with, the Centre needs to **rethink the nature of its actions**.
- It should play an **enabling role**, for instance, encouraging knowledge-sharing between States. For **States to play a bigger role in human capital interventions**, they need **adequate fiscal resources**.
- To this end, States should **rationalise their priorities to focus on human capital development**.
- The Centre should **refrain from offsetting tax devolution** by altering cost-sharing ratios of CSSs and increasing cesses.
- The **unconditional nature of these vertical transfers** should be effectuated in spirit.
- Leveraging the true potential of our multi-level federal system represents the best way forward towards developing human capital.

THE STRUCTURAL FRAGILITY OF UNION TERRITORIES

GS-II GOVERNANCE

Context

- The sudden and inexplicable resignations of Congress MLAs from the Puducherry Assembly have turned out to be an ingenious move to topple the Congress government led by V. Narayanasamy.
- This was also done in 2019 with devastating effect in Karnataka. In both cases, the governments lost the majority and went out of office.

- Resigning from the membership of the House is every member's right. But according to Article 190 of the Constitution, the resignation should be voluntary or genuine. If the Speaker has information to the contrary, he or she is not obliged to accept the resignation.

An innovative method

- There is by now a **familiar pattern to the resignations of Members of the Legislative Assembly**. Such resignations invariably lead to the fall of the government and resignations take place only from the ruling parties in the States which are **opposed to the ruling party at the Centre**.
- These parties are in a precarious condition because in most cases, the **resignations are quite unanticipated and reduce the party's majority** in the House abruptly. This mode of toppling a government has an odd attractiveness about it because of its sheer novelty. The beauty of this scheme is that no MLA has to **defect and face disqualification and get a bad name**.

Composition of the legislature

- The first question that arises in the context of these UTs is why the Constitution-makers/ Parliament thought it fit to provide a legislature and Council of Ministers to some of the UTs.
- The ostensible reason is to fulfil the democratic aspirations of the people of these territories. In other words, there was a realisation that the administration of these territories directly by the President through the administrators under Article 239 does not meet the democratic aspirations of the people.
- Therefore, the **creation of a legislature and a Council of Ministers is logical** and in consonance with the policy of the state to promote democracy.
- Article 239A** was originally brought in, in 1962, to enable Parliament to **create legislatures for the UTs**. It is a body that is **elected**, or partly elected and partly **nominated**.
- There can be a Council of Ministers without a legislature, or there can be a legislature as well as a Council of Ministers.
- In our constitutional scheme, a **legislature is the law-making body** and a **legislative proposal is initiated by the government**, which is **responsible to the legislature**. Neither can the legislature exist without a Council of Ministers nor can the Council of Ministers exist without a legislature.
- Similarly, a legislature that is partly elected and partly nominated is another absurdity.
- A simple amendment in the Government of Union Territories Act, 1963 can create a legislature with more than 50% nominated members. How can a **predominantly nominated House promote representative democracy?**

Issue of nomination

- The Government of Union Territories Act provides for a 33-member House for Puducherry of whom three are to be nominated by the Central government.
- So, when the Union government nominated three BJP members to the Assembly without consulting the government, it was challenged in the court.
- Finally, the Supreme Court (K. Lakshminarayanan v. Union of India, 2019) held that the Union government is not required to consult the State government for nominating members to the Assembly and the nominated members have the same right to vote as the elected members.
- Nomination as such is not new to the Indian legislature. There is provision for nomination of members to the **Rajya Sabha [Article 80 (i)(a)]**.
- The purpose of this nomination is to enable the House to draw on the expertise of those eminent members who are nominated and thus enrich the debate in the House.
- But in the case of nomination to the Puducherry Assembly, no such qualification is laid down either in Article 239A or the Government of Union Territories Act.

- The Supreme Court took too **technical a view on the matter of nomination** and **did not go into the need to specify the fields** from which those persons could be nominated and also lay down a fair procedure to be followed for nomination of members.
- As things stand, the **law invites arbitrariness in dealing with the nomination** of members to the UT legislature.

Administrator's power

- The UTs were never given a fully democratic set-up with necessary autonomy.
- The power vested in the administrator, who is known as the **Lieutenant Governor in the UTs having a legislature**, bear this out.
- The administrator has the right to disagree with the decisions of the Council of Ministers and then refer them to the President for a final decision.
- The **President decides on the advice** of the Union government. So, in effect, it is the Union government which finally determines the disputed issue.
- The **administrator can, in fact, disagree with all crucial decisions** taken by the State government when the territory is ruled by a different political party.
- Section 44 of the Government of Union Territories Act and Article 239 AA(4) (proviso) of the Constitution vests the power in the administrator to express his or her disagreement and refer the matter to the President and then take all actions he or she deems fit in the matter in total disregard of the elected government.
- Although in **NCT of Delhi v. Union of India (2019)**, the Constitution Bench of the Supreme Court had said that the **administrator should not misuse this power** to frustrate the functioning of the elected government in the territory and use it after all methods have failed to reconcile the differences between him/her and the Council of Ministers, experience tells us a different story.



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MYANMAR COUP

GS-II INTERNATIONAL RELATIONS

Context

- On February 1, the Myanmar army seized power, turning a partial democracy into a full-fledged military rule.

Background

- Myanmar's powerful military chief Min Aung Hlaing had raised **doubts about last year's election results** even before the polls were held.
- However, Myanmar's Union Election Commission dismissed the allegations and re-endorsed the results.
- Hours before the new Parliament was to convene, the Generals moved into action. They **detained State Counsellor Suu Kyi, President Win Myint** and other top leaders of the NLD. They declared a state of emergency for a year, and took power in their hands.
- Than Shwe, who had been ruling the country since 1992, shook up the power structure, **promoted young soldiers who were loyal to him** and conducted elections under the new Constitution.
- The NLD, which had not recognised the Constitution, boycotted the 2010 election, which the USDP won. In the next five years, the **Army loosened its grip on the government and society**. Political prisoners, including Ms. Suu Kyi, were released.
- The NLD won the **2015 election**, the **country's first free and fair election** participated by multiple parties, and formed the government, raising hopes that the country is on its way to full transition to democracy.



Flaws in the constitution:

- According to the Constitution, the President must have military experience and the President himself, his spouse or children "shall not be subject to a foreign power or citizen of a foreign country".
 - Ms. Suu Kyi, whose two sons are British citizens, cannot become President.
- The Constitution also mandates that the **Defence and Interior Ministries** would be controlled by the **military**.
- Also, **25% of the total seats in Parliament** are reserved for the military, giving it a veto over any move to change the Constitution.

Fault Lines

- First, **ideologically** the two segments of the political elite have been at war with each other.
 - The **army has a sense of entitlement to power** on the grounds that it secured independence, defended the country against secession, and ensured stability and development. It views itself as the guardian of the state.
 - NLD leader Ms. Suu Kyi, the other protagonist, has always expressed **admiration for the army**, but she has been a **staunch advocate of democracy**, a system in which the army should be completely apolitical.
 - Two sides have had modest to **serious differences over ethnic reconciliation**, constitutional reform, the Rohingya issue, and the China policy.
- Second, in **political terms the fight is for power**. The army has been used to exercising power for long, which yields it immense economic dividends too.
 - Playing second fiddle to democratically elected leaders was a difficult role for it.
- Third, **presidential ambitions** and the future of **Senior General Min Aung Hlaing's** career constitute a relevant issue.
- The military leadership understands the **people's psyche** well. The divide between the **Burmans**, the majority group, and the **ethnic minorities** remains wide. The latter are generally opposed to a strong Central government.

What's next?

- The Army says it has declared an emergency as the NLD government failed to act on its **complaints on voter fraud**. It has **promised elections, without offering any time frame**. But the NLD has called for protests against the coup.
- The U.S., which under President Obama helped the transition, has reacted harshly. India has expressed "deep concern". But if China's response is any indication, the Generals won't face any heat from Beijing.
- This means, they **could circumvent pressure from the U.S.**, even economic sanctions, by **moving closer to China**, which is already making huge investments in Myanmar.
- But **Suu Kyi's popularity and an energised NLD** that was in power for five years would be an impediment for them. And their own unpopularity, a burden.

Emergency or coup:

- To explain the military's actions, its spokesman pointed out that there was "**terrible fraud in the voter list**" in the parliamentary elections held in November 2020, and that the Election Commission "**failed to settle the matter.**"
- Claiming that this development would "**obstruct the path to democracy**", the army declared an emergency, transferring all powers to Commander-in-Chief Min Aung Hlaing.
- The decision seems **questionable on legal and constitutional grounds**.
- First, **electoral issues need to be addressed and resolved by relevant authorities**, not the military leadership.
- Second, **Article 417 of the Constitution** empowers the President to proclaim emergency, in consultation with the National Defence and Security Council. It does not seem that the Council met or presidential consent was obtained.
- But it is a **coup with a difference**: the party wielding half of the power decided to help itself with the other half too, regardless of the law or consequences.

Issues in handling the coup by international community

There are indeed some common lessons for the international community to avoid making mistakes made in the past.

1. The developments in Myanmar will invariably bring back the **old debate around the prudence of sanctions**.
 - The coup in Myanmar coincided with the first month of the Biden administration in the U.S., which has promised to bring back the **values of democracy and respect for human rights** to the core of the U.S. foreign policy.
 - Notwithstanding the western sanctions before 2010, China, Thailand and Singapore were the key trading partners of Myanmar. The present reality is no different.
2. The old debate around the **need for accountability for crimes against humanity** will resurface.
 - As political changes got underway in 2010, many generals, such as Than Shwe, who was the de-facto head of Myanmar from 1992 to 2011 and was on the radar of the international community for perpetuating a regime of human rights abuses, quietly vanished from the scene.
 - This bred a culture of impunity. During the 2017 Rohingya crisis, senior military officials brazenly exploited social media to mobilise public support for brutality against Rohingyas.

The Rohingya Question:

- The Rohingyas in Bangladesh have stated they **do not support the current act by the military**, but they also **do not worry about the fate of Aung San Su Kyi** since she hardly did anything for their safety and security while they were living in Myanmar.
- Though with the democratic government they still felt there may be a chance to return; many are currently worried that with the **military in power the repatriation process will not honour** their wishes of citizenship, dignity and security.

3. A critical international player in Myanmar is **China**. China has appointed specific envoys for Asian affairs, who are de-facto working on **Myanmar-related issues since 2013**. The international community, particularly the West,

has to factor in China's multi-layered influence on Myanmar.

The China factor:

- In the short run, the **coup stands to hurt the interests of China, India** and even the rest of the international community. However, the **international community's sharp reactions** will likely force the **Tatmadaw to turn to China**.
- For China, the coup has complicated its larger regional economic plans in Myanmar, at least for the time being. Beijing has recently been cultivating Ms. Suu Kyi, who was keen on a strong relationship with China given the growing criticism she was facing from the West.
- On the positive side for Beijing, decisive **western sanctions will force the military to get closer to China**. China, therefore, has every reason to go **easy on the junta** and offer them **support in return for increasing the Chinese footprint** in the country.

4. Many **international mechanisms comprising Western and Asian countries** that were formed to coordinate strategies on Myanmar were **disbanded after the 2015 election**. That the changes in Myanmar were irreversible was the standard thinking. Relevant actors should be brought on a common platform by reviving past mechanisms.
5. The expectation that Myanmar will see a **nationwide protest against the Tatmadaw after the coup** should be examined with the geographical extent of Bamar, Myanmar's largest ethnic group, who support the National League for Democracy.
 - The minorities in the country form around **35% of the population**. In the current scenario, the military will continue to exploit ethnic and religious fault lines.
 - Engagement with domestic stakeholders, including ethnic minorities, especially from the north, should be pursued by the international community.

Indian Stakes in Myanmar

- For India, the return to military rule by Myanmar's Tatmadaw (Army) and the detention of **Aung San Suu Kyi** and the political leadership of the National League of Democracy (NLD) are a repeat of events 30 years ago, but the Modi government's **reaction is likely to be starkly different to India's strong public criticism** of the junta's actions in 1989-90.
- India does care about democracy in Myanmar, but that's a luxury it knows it will not be able to afford for the time being. The **only option will be to engage**, building on its outreach in recent years via the security and defence establishment.
- India's security relationship with the Myanmar military has become extremely close, and it would be difficult to "burn bridges" with them given their **assistance in securing the North East frontiers from insurgent groups**.
- Another reason for the change is **Ms. Suu Kyi herself, whose image as a democracy icon and Nobel peace laureate has been damaged** by her time in office, where she failed to push back the military, and even defended the Army's pogrom against **Rohingya in Rakhine State** in 2015.
- Officials also say a **harsh reaction from India**, on the lines of that from the U.S., which has threatened action against those responsible for the "coup" unless they revoke the military's takeover, would **only benefit China**.
- Apart from strategic concerns, India has cultivated **several infrastructure and development projects with Myanmar**, which it sees as the "gateway to the East" and ASEAN countries.
- These include the **India-Myanmar-Thailand trilateral highway** and the **Kaladan multi-modal transit transport network**, as well as a plan for a Special Economic Zone at the Sittwe deep-water port.
- Finally, India still hopes to help **resolve the issue of Rohingya refugees** that fled to Bangladesh, while some still live in India, and will want to continue to engage the Myanmar government on that.

Way Forward for India: Policy of non-interference

- Many worry how India, the world's largest democracy, should cope with the forcible overthrow of democracy in a neighbouring country.
- **Institutional memories and experiences** are helpful. Whenever democracy suffers, India feels concerned, even anguished.
- But the government is committed to the **policy of non-interference** in another state's internal affairs. It is also **guided by the national interest**.
- Therefore, in managing relations with Myanmar, India will astutely **balance its principles, values, interests and geopolitical realities**.
- The visit to Myanmar last October by Foreign Secretary Harsh Vardhan Shringla and Chief of Army Staff M.M. Naravane was an unmistakable sign that **New Delhi fully understood where power lay in Naypyidaw**.

Conclusion

- No one possesses a magic wand of solutions. But there is one consistent lesson, that **no change is irreversible**, particularly in a context where military leadership scripted the meaning of democracy, and domestic forces and geopolitics continuously fail to deter its actions and impulses to rule.
- New Delhi then is left with very few clear policy options. It must continue to **maintain relations with the government in power in Myanmar** while discreetly pushing for political reconciliation in the country. In the meantime, the focus must be on improving **trade, connectivity, and security** links between the two sides.

INDIA-SRI LANKA: THE COLOMBO PORT SETBACK

GS-II INTERNATIONAL RELATIONS

Context

- After strong opposition from trade unions across the country, Sri Lanka has unilaterally pulled out of a 2019 agreement with India and Japan for developing the **strategic East Container Terminal (ECT) at the Colombo Port**.

Background

- In 2019, India and Sri Lanka signed a memorandum of understanding for co-operation on economic projects.
- The **MoU did not mention the Eastern Container Terminal**, but India and Sri Lanka had already been in discussion for its development and operation.
- Unlike Chinese projects, **big projects by India have always faced opposition in Sri Lanka**.
- **Sinhala-Buddhist politicians** either ride such opposition opportunistically when it suits them, sometimes using this as a pretext over the real reason, or are reluctant to go counter to the public sentiment for fear of being attacked for surrendering to "big brother India".
- For this reason, **India had roped Japan** into at least two of the projects listed in the MoU – the ECT, and an LNG Terminal/Floating Storage Regasification Unit (FSRU) in Kerawalapitiya/Colombo with a piped gas distribution system along with retail outlets for CNG etc – believing this would ensure the project comes through.
- Japan was the biggest donor to Sri Lanka through the years of conflict. The **Geoffrey Bawa-built Sri Lankan parliament**, which came up at the height of the conflict, was funded by Japan.



Bandwagoning with China:

- Geopolitics has been playing a multivariate role in determining Sri Lanka's relations with India, China, and the US. **Geopolitical dynamics vis-a-vis India's China stance has a direct impact** on Sri Lankan foreign policy that prefers to hedge between China and India.
- **China established its presence at the third strategic geographical corner** of the Indian periphery, the other two port access points from land and sea being Pakistan and Myanmar. These two countries have been a major focus in China's BRI with the **China-Myanmar Economic Corridor (CMEC)** and the **China-Pakistan Economic Corridor (CPEC)**.
- Indian foreign policy would have to more cautiously consider the Chinese sphere in this regard.
- According to Stephen M. Walt in his work 'The Origins of Alliances,' **"the weaker the state the more likely it is to bandwagon rather than balance."** Deteriorating economic conditions with multiple miscalculated strategic choices has weakened the Sri Lankan state, and it is now bandwagoning with China.

Importance for India

- For India, the ECT deal was important as between **60 and 70 percent of transshipment that takes place through it is India-linked.**
- The ECT is also considered **more strategic than any other in Colombo Port.**
- It is located next to the **Colombo International Container Terminal (CICT) project**, a joint venture between China Merchants Port Holdings Company Ltd. and SLPA.
- India had been offered the **Western Container Terminal** earlier, but had refused. The ECT is already operational, while the WCT has to be built from scratch.
- The implementation of the ECT agreement was high on Jaishankar's agenda when he visited Colombo in January.



Rights Crisis in Sri Lanka:

- Indian leaders have committed to supporting the **rights of minority Tamils in Sri Lanka** to "live with equity, equality, justice, peace and dignity".
- The **human rights situation in Sri Lanka has worsened** since Gotabaya Rajapaksa became President in 2019.
- Rajapaksa was the defence secretary in the government led by his brother Mahinda from 2005 to 2015, a period marked by particularly egregious human rights abuses. **Critics of the government were murdered, tortured, and forcibly made to disappear.**
- When Mahinda Rajapaksa lost the 2015 presidential election, there was **hope for change.**
- The new government **supported a consensus resolution at the Human Rights Council** that offered victims of abuses and their families truth, justice, and reconciliation.
- In January, the authorities **bulldozed a memorial at Jaffna university** that commemorated Tamil civilian victims of the civil war.
- The Rajapaksa government, in 2020, **renounced its commitments under the 2015 Human Rights Council resolution** and is threatening victims' families and activists who supported it.

Way Forward:

- The **UNHRC** should recognise the government's actions for what they are — an effort to impede justice.
- A **new resolution is urgently needed** to protect vulnerable minority communities in Sri Lanka, by upholding the principle of accountability for the worst crimes. India should join other member states in supporting a resolution to reduce the growing risk of future atrocities.

Sri Lanka's consolation offer

- ECT would be developed and operated as a **wholly owned container terminal of the Sri Lanka Ports Authority (SLPA)**, a cabinet meeting approved a proposal to develop the West Terminal at the Colombo Port as a Public Private Partnership with India and Japan, seen as a bid to compensate for taking away the ECT.

Desirability of New Offer

- It is unclear if the Indian corporate or the Japanese investor will be interested in developing the **West Container Terminal (WCT)**, which is being offered in lieu of the ECT.
- Sri Lanka has **reportedly offered 85 percent stake in WCT** as with China in the all-important CICT. This compares favourably with the ECT's **49 percent**, but no information is available about the ocean draught/depth and the like at the WCT, to make it equally attractive for international ocean liners which alone decides business volumes, based also on the competitive pricing.
- Sri Lanka has reportedly offered 85 percent stake in West Container Terminal — as with China in the all-important Colombo International Container Terminal.
- Developing the non-existent WCT will involve **more investments and longer time**, put at 3-5 years, but with no **guarantee that the Sri Lankan government would not reconsider** the current offer at a later date.
- It is likely that this one flip-flop by Colombo could **adversely impact big-ticket overseas investments**, which the nation badly needs in this time of unprecedented economic crisis.

INDIA-CHINA DISENGAGEMENT

GS-II INTERNATIONAL RELATIONS

Details:

- China's military announced that frontline troops of India and China had begun disengaging in a "synchronised and organised" manner from the **north and south banks of Pangong lake**.
- This is the **first phase of disengagement** with some tanks and armoured elements on the south bank being withdrawn as well as thinning down of troops on the north bank.
- External Affairs Minister S. Jaishankar said that while both India and China remained committed to a multipolar world, they should recognise that a "multipolar Asia" was one of its essential constituents.

Border stand-off

A timeline of the months-long stand-off between India and China at the Pangong Tso lake

May 5, 2020: First major clash reported after Chinese mobilisation at Pangong Tso North bank, several soldiers injured in the scuffle

May 5 to May 15: PLA transgressions, clashes with Army reported at Pangong, Galwan, Depsang, Sikkim, and other points on LAC

June 15: 20 Indian soldiers die in Galwan clash; no word on Chinese casualties



Easing friction: Indian army trucks seen near the Pangong Tso lake. = FILE PHOTO

June 19: Prime Minister holds all-party meet, says "no one has transgressed India's borders"

Aug. 29-30: Indian and Chinese troops clash at Pangong Tso South bank; Indian troops dominate peaks

Sept. 3: Defence Minister Rajnath Singh meets his Chinese counterpart

Sept. 10: External Affairs Minister S. Jaishankar meets Chinese FM Wang Yi, both agree to a five-point resolution

Nov. 6: Officials say a disengagement plan has been agreed upon

Jan. 24, 2021: Ninth round of Corps Commander talks go on for 16 hours

About Pangong Lake:

- Pangong Tso or Pangong Lake is an endorheic lake spanning **eastern Ladakh** and **West Tibet** situated at an elevation of 4,225 m.
- It is 134 km (83 mi) long and divided into five sub lakes, called **Pangong Tso, Tso Nyak, Rum Tso (twin lakes) and Nyak Tso**.
- Approximately **50% of the length of the overall lake lies within Tibet**, 40% in Ladakh and the rest is disputed but controlled by China.
- The lake is **5 km (3.1 mi) wide at its broadest point**. All together it covers 604 km².
- During winter the lake freezes completely, despite being saline water.
- It has a land-locked basin separated from the Indus River basin by a small elevated ridge, but is believed to have been part of the latter in prehistoric times.

Background

- India previously patrolled on foot up to **Finger 8** – there is **no motorable road access** from India's side to areas east of **Finger 4** – while **China has dominated up to Finger 4**, having already built a road there and enjoying superior logistics.
- Chinese troops had prevented India from reaching Finger 8**, leading to the crisis.
- Now, the entire contested area, from 4 to 8, will become a **buffer zone** and **all temporary infrastructure built after April 2020** will be withdrawn.

Disengagement deal

- The Chinese have agreed to pull back forward deployments to their permanent base at **Sirijap, east of Finger 8**, and to **dismantle all infrastructure created after April 2020**.
- India's tough negotiators, both diplomatic and military, have ensured that our troops retain their **presence at the permanent Indian post at Finger 3** even though China had earlier demanded that India fall back further.
- All the Chinese posts atop the high spurs on the northern bank will also be dismantled, including those that overlooked the **Dhan Singh Thapa Post**.
- India will also fall back from its recently held positions along the Kailash range to earlier positions.

Message of endurance

- Having acquired powerful leverage, Indian troops dug in for the long haul and mirrored the PLA's deployments.
- The message was unambiguous. India was not going to cave in and stood ready to impose a harsh penalty if China engaged in any act of adventurism.
- The **endurance of the Indian Army** through the **harsh winter** months has been extraordinary. China appears to have realised that a prolonged stand-off, hardly a part of its original calculus and of little avail militarily or politically, was permanently impairing bilateral relations.
- The uncertainty associated with the law of unintended consequences, the **high reputational costs to itself**, and the **forward momentum in India-U.S. relations** and the **Quadrilateral Security Dialogue** (India, the U.S., Japan and Australia), better known as the Quad, may also have proved to be factors for China.

Challenges for India

- Diplomatic challenge:**
 - The foreign policy challenge for India is really two sides of the China conundrum: **defining engagement with its neighbour** which is expanding the Belt and Road Initiative (BRI) while remaining involved with the **strategic, security and technological concerns of the U.S.** located across the vast Pacific Ocean.
 - The U.S. 'Annual Report to Congress: Military and Security Developments involving the People's Republic of China' cautions that U.S. aircraft carriers, symbols of the country's military hegemony, may not enjoy unquestioned dominance for much longer.
- Financial Challenge:**
 - In the financial sphere, there is the real possibility of the **Chinese renminbi becoming a global reserve currency** or **e-yuan becoming the digital payments currency**.
 - The BRI countries are using the **renminbi in financial transactions with China**, and can be expected to use it in transactions with each other.
- China as Superpower:**
 - EU's China policy of seeing the emerging superpower** and EU reaching out to China despite misgivings of the U.S. means the **West has given up on containing the rise of China**.
 - This broad perspective is also reflected in **India's participation in both the Shanghai Cooperation Organisation**, led by Beijing and Moscow and designed to resist the spread of Western interests, and in the **U.S.-led Quad, with its anti-China stance**.
 - The **China-led Asian Infrastructure Investment Bank** has increased its membership to 100 countries.
 - China is now the **second-biggest financial contributor to the UN**.

Rising India:

- India's recent policies are **gaining influence at the expense of China and the West**, and both know this trend will accelerate.
- The steps to a \$5 trillion economy, shift to indigenous **capital military equipment**, and a new **Science, Technology and Innovation Policy** underline impact, capacity and interests.
- **ASEAN** remains keen India rejoin its trade pact to balance China. It is being recognised that India's software development prowess could shape a **sustainable post-industrial state different to the U.S. and China model**.

Policy evolution

- Another area where India can play a 'bridging role' is global governance whose **principles, institutions and structures now have to accommodate other views** for issue-based understandings.
- President Xi Jinping's "**community with shared future for mankind**", and Prime Minister Narendra Modi's "**climate justice**" and asking how long India will be excluded from the UN Security Council, challenge the frame of the liberal order without providing specific alternatives.
- With respect to digital data, the defining issue of the 21st century, India has recently **expressed that there must be reciprocity in data sharing**, and this is the kind of 'big idea' for sharing prosperity that will gain traction with other countries.

Way Forward

- With this agreement, the only pending problems now are smaller, less concerning stand-offs involving fewer troops in **Patrolling Points 15 and 17A in the Gogra-Hot Springs area**, which will be taken up 48 hours after disengagement at Pangong Lake is completed over the next few weeks.
- In the Depsang plains, there is no stand-off situation or heavy deployment of troops, but a **long-running dispute over the LAC and blocking of patrols that predates the current crisis** and as yet remains unresolved.
- The success of the new disengagement plan will finally depend on **whether it is implemented on the ground in letter and in spirit**.
- Both sides should keep in mind what is at stake for the broader relationship between the two most populous countries, which ultimately hinges on peace on the border.
- As in the historical past, Asia is big enough for both Asian giants to have **complementary roles, share prosperity and be independent of each other and of the West**.

INDIA-RUSSIA RELATIONS IN CURRENT GEOPOLITICS

GS-II INTERNATIONAL RELATIONS

Context

- The Chinese aggression in the border areas of eastern Ladakh demonstrated that **Russia is capable of contributing to defusing tensions with China**. On the other hand, Russia's seeming equivocation initially **diminished its standing among the Indian public**.
- The Russians promised to positively look at India's requests for expedited arms deliveries in view of the border conflict, despite some informal appeals against it by the Chinese.

Thaw in the Relation

- The **inflexion point** reached by India in its relations with **China has driven New Delhi to shed "past hesitations"** and actively pursue more **hard-nosed policies** to protect its perceived national interests.

- This has included the pursuit of a closer relationship with the US; a determined restart to the Quad process; a clearer enunciation of “a free and inclusive” Indo-Pacific; an energetic neighbourhood policy; as well as intensified outreach to east and west Asia.
- Russia, for its part, has, since 2014, faced deteriorating ties with the US-led West



following the Ukraine crisis, exacerbated now by the Western reaction to the poisoning and post-recovery jailing of anti-government political activist Alexey Navalny.

- Russia responded to these efforts to isolate it, by revving up its own “Pivot to the East”, the most distinct results of which are markedly improved relations with China, and better ties with Turkey, Iran and Pakistan. Russia has officially been cold towards the concept of the Indo-Pacific, seeing it as a design to contain China.
- These trends combined with bilateral economic ties well below their potential, and possible differences developing over the “new friends” of the two countries, would suggest that India-Russia relations are likely to face some turbulence ahead.


Signs of Cooperation

- Apart from traditional areas of cooperation such as weapons, hydrocarbons, nuclear energy and diamonds, new sectors of economic engagement are likely to emerge – mining, agro-industrial, and high technology, including robotics, nanotech and biotech.
- India’s footprint in the Russian Far East and in the Arctic is set to expand. Connectivity projects may get a boost too.
- India and Russia are working to close the gap on Afghanistan and are calling for early finalisation of the Comprehensive Convention on International Terrorism.
- Russia supports India’s candidacy for permanent membership of a reformed United Nations Security Council and of the Nuclear Suppliers Group.
- India and Russia also plan to intensify cooperation on regional and global issues within the framework of the Eurasian Economic Union, Brazil, Russia, India, China, South Africa, SCO, Russia, India, China, and G20.


Defence Relations:	
Joint Military Programmes: <ul style="list-style-type: none"> • BrahMos cruise missile programme • 5th generation fighter jet programme • Sukhoi Su-30MKI programme • Ilyushin/HAL Tactical Transport Aircraft • KA-226T twin-engine utility helicopters 	Purchase/Lease: <ul style="list-style-type: none"> • S-400 Triumf • Kamov Ka-226 200 • T-90S Bhishma • Akula-II nuclear submarine • INS Vikramaditya aircraft carrier programme • Tu-22M3 bombers • MiG-29

Way Forward


- India should pursue and facilitate **Russia's engagement in the Indo-Pacific**. Russia may not use the term Indo-Pacific for some more time, but its active engagement, irrespective of motive, in the region would speak louder than any words and contribute to making the Indo-Pacific "free and inclusive".
- Finally, world powers, particularly those engaging with India in the Indo-Pacific, must know that a **multi-polar Euro-Asian supercontinent is not possible without Russia**.
- Preventing the emergence of a hegemon in Eurasia without Russia, given its size and resources, is well-nigh impossible. Today Russia, like India, desires a world with many centres of power. The opportunity must not be lost.



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GEOSPATIAL DATA POLICY**GS-II POLICY****Context**

- In sweeping changes to the country's mapping policy, the government announced **liberalisation of norms governing the acquisition and production of geospatial data**, a move to help **boost innovation in the sector** and create a **level playing field for public and private entities**.

Details

- Under the new guidelines, the **sector will be deregulated** and aspects such as prior approvals for surveying, mapping and building applications based on those have been done away with.
- There will be complete deregulation with **no prior approvals, security clearances and licences** for the acquisition and production of geospatial data and geospatial data services, including maps.
- The reform will benefit the country's **farmers, start-ups, the private sector, the public sector, and research institutions** to drive innovations and build scalable solutions, he said.
- Easing of norms will greatly help in several sectors that were suffering because of non-availability of high quality maps.

Geo-spatial Data:

- Geospatial data is **data about objects, events, or phenomena** that have a location on the surface of the earth.
- The location may be **static in the short-term**, like the location of a road, an earthquake event, malnutrition among children, or dynamic like a moving vehicle or pedestrian, the spread of an infectious disease.
- Geospatial data **combines location information, attribute information** (the characteristics of the object, event, or phenomena concerned), and often also **temporal information or the time at which the location and attributes exist**.
- Geo-spatial data usually **involves information of public interest** such as roads, localities, rail lines, water bodies, and public amenities.

Present policy on geo-spatial data

- There are strict restrictions on the collection, storage, use, sale, dissemination of geo-spatial data and mapping under the current regime.
- The policy had not been renewed in decades and has been driven by internal as well as external security concerns.
- The sector so far is **dominated by the Indian government as well as government-run agencies** such as the Survey of India and private companies need to navigate a system of permissions from different departments of the government (depending on the kind of data to be created) as well as the defence and Home Ministries, to be able to collect, create or disseminate geo-spatial data.
- GIS mapping was also rudimentary, with the **government investing heavily in it after the Kargil war** highlighted the dependence on foreign data and the need for indigenous sources of data.

Reason for deregulated geo-spatial data

- This system of acquiring licenses or permission, and the red tape involved, can take months, delaying projects, especially those that are in mission mode – for both Indian companies as well as government agencies.
- The deregulation eliminates the requirement of permissions as well as scrutiny, even for security concerns.
- Indian companies now can **self-attest, conforming to government guidelines** without actually having to be monitored by a government agency- these guidelines therefore place a great deal of trust in Indian entities.
- There is also a huge **lack of data in the country** which impedes planning for infrastructure, development and businesses which are data-based. The **mapping of the entire country**, that too with high accuracy, by the Indian government alone could take decades.

- The government therefore felt an **urgent need to incentivise the geo-spatial sector** for Indian companies and increased investment from private players in the sector.
- There has also been a **global push for open access to geo-spatial** as it affects the lives of ordinary citizens, and the **new guidelines has ensured such an open access**, with the exception of sensitive defence or security-related data.

Expected Impact

- By liberalising the system, the government will ensure **more players in the field, competitiveness of Indian companies in the global market**, and more accurate data available to both the government to formulate plans and administer, but also for individual Indians.
- **Startups and businesses** can now also use this data in setting up their concerns, especially in the sector of e-commerce or geo-spatial based apps – which in turn will increase employment in these sectors.
- Indian companies will be able to **develop indigenous apps**, for example an Indian version of google maps.
- There is also likely to be an **increase in public-private partnerships** with the opening of this sector with data collection companies working with the Indian government on various sectoral projects.
- The government also expects an **increase in investment in the geo-spatial sector by companies**, and also an increase in export of data to foreign companies and countries, which in turn will boost the economy.

MAA SCHEME

GS-II POLICY

About the scheme

- **West Bengal** Chief Minister Mamata Banerjee launched “Maa” canteens for providing **subsidised meals to the poor** and the destitute at a **nominal cost of Rs. 5 a plate**.
- The government will give a **subsidy of Rs. 15** and people will have to pay Rs. 5.
- The kitchens will be run by **self-help groups**.

THE TRIBUNALS REFORMS BILL, 2021

GS-II POLICY

Context

- The Tribunals Reforms (Rationalisation and Conditions of Service) Bill, 2021 was introduced in Lok Sabha

Details

1. It seeks to **dissolve certain existing appellate bodies** and **transfer their functions** to other existing judicial bodies (mainly High Courts).

These appellate bodies include the:

- Appellate Tribunal under the Cinematograph Act, 1952,
- Appellate Board under the Trade Marks Act, 1999, and
- Appellate Board under the Patents Act, 1970.

The **Finance Act, 2017** empowered the central government to notify rules on qualifications of members, terms and conditions of their service, and composition of search-cum-selection committees for 19 tribunals (such as Customs, Excise, and Service Tax Appellate Tribunal).

2. The Bill amends the 2017 Act to include provisions related to the composition of searchcum-selection committees and term of office of members in the Act itself. These include:
 - The Chief Justice of India, or a Supreme Court Judge nominated by him, as the Chairperson (with casting vote),
 - Two Secretaries nominated by the central government,

- The sitting or outgoing Chairperson, or a retired Supreme Court Judge, or a retired Chief Justice of a High Court, and
 - The Secretary of the Ministry under which the Tribunal is constituted (with no voting right).
 - The Bill specifies that the central government must make appointments to the tribunals within three months of the date of recommendation of the Committee.
3. **Term of office:** The Bill specifies that the term of office for the Chairperson of the tribunals will be of **four years or till the attainment of the age of seventy years**, whichever is earlier. For other members of the tribunals, the term will be of **four years or till the age of sixty-seven years**, whichever is earlier.
4. Further, the Bill includes the **National Consumer Disputes Redressal Commission** established under the Consumer Protection Act, 2019 within the purview of the Finance Act, 2017.

The Bill removes:

- The Airport Appellate Tribunal established under The Airports Authority of India Act, 1994,
- The Appellate Board established under the Trade Marks Act, 1999,
- The Authority of Advance Ruling established under the Income Tax Act, 1961, and
- The Film Certification Appellate Authority established under the Cinematograph Act, 1952, from the purview of the Finance Act, 2017.

Table 1: Transfer of functions of key appellate bodies as proposed under the Bill		
Acts	Appellate body	Proposed entity
The Cinematograph Act, 1952	Appellate Tribunal	High Court
The Trade Marks Act, 1999	Appellate Board	High Court
The Copyright Act, 1957	Appellate Board	Commercial Court or the Commercial Division of a High Court*
The Customs Act, 1962	Authority for Advance Rulings	High Court
The Patents Act, 1970	Appellate Board	High Court
The Airports Authority of India Act, 1994	Airport Appellate Tribunal	Central government, for disputes arising from the disposal of properties left on airport premises by unauthorised occupants.

THE ARBITRATION AND CONCILIATION (AMENDMENT) BILL, 2021

GS-II POLICY

Context

- The Arbitration and Conciliation (Amendment) Bill, 2021 was introduced in Lok Sabha on February 4, 2021. It seeks to amend the Arbitration and Conciliation Act, 1996.
- The Act contains provisions to **deal with domestic and international arbitration** and **defines the law for conducting** conciliation proceedings. The Bill replaces an Ordinance with the same provisions promulgated on November 4, 2020.

Details

Automatic stay on awards:

- The 1996 Act allowed a party to file an application to set aside an arbitral award. Courts had interpreted this provision to mean that an **automatic stay on an arbitral award was granted the moment an application for setting aside** an arbitral award was made before a court.
- In 2015, the Act was amended to state that an arbitral award would **not be automatically stayed** merely because an application was made to a court to set aside the arbitral award.
- The Bill specifies that a stay on the arbitral award can be provided (even during the pendency of the setting aside of the application) if the court is satisfied that:
 - the relevant arbitration agreement or contract, or
 - the making of the award, was induced, or effected by fraud or corruption. This change will be effective from October 23, 2015.

Qualifications of arbitrators

- The Act specified certain **qualifications, experience, and accreditation norms** for arbitrators in a separate schedule. The requirements under the schedule include that the arbitrator must be:
 - an advocate under the **Advocates Act, 1961 with 10 years of experience**, or
 - an officer of the **Indian Legal Service**, among others.
- Further, the general norms applicable to arbitrators include that they must be **conversant with the Constitution of India**.
- The Bill **removes the Schedule for arbitrators** and states that the qualifications, experience, and norms for accreditation of arbitrations will be specified under the regulations.

THE MAJOR PORT AUTHORITIES BILL, 2020

GS-II POLICY

Context

- The Major Port Authorities Bill, 2020 was introduced in Lok Sabha by the Minister of State for Shipping, Mr. Mansukh Mandaviya, on March 12, 2020.
- The Bill seeks to provide for **regulation, operation and planning of major ports** in India and provide greater autonomy to these ports.
- It seeks to **replace the Major Port Trusts Act, 1963**.

Key features of the Bill include

Application

- The Bill will apply to the major ports of Chennai, Cochin, Jawaharlal Nehru Port, Kandla, Kolkata, Mumbai, New Mangalore, Mormugao, Paradip, V.O. Chidambaranar, and Vishakhapatnam.

Major Port Authorities Board

- Under the 1963 Act, all major ports are managed by the respective Board of Port Trusts that have members appointed by the central government.
- The Bill provides for the **creation of a Board of Major Port Authority** for each major port. These Boards will **replace the existing Port Trusts**.

Composition of Board

- The Board will comprise a **Chairperson** and a **deputy Chairperson**, both of whom will be appointed by the central government on the recommendation of a selection committee.
- Further, it will include one member each from
 - the respective state governments,

- the Railways Ministry,
- the Defence Ministry, and
- the Customs Department.
- The Board will also include two to four independent members, and two members representing the interests of the employees of the Major Port Authority.

Powers of the Board

- The Bill allows the Board to use its property, assets and funds as deemed fit for the development of the major port. The Board can also make rules on:
 - declaring availability of port assets for port related activities and services,
 - developing infrastructure facilities such as setting up new ports, jetties, and
 - providing exemption or remission from payment of any charges on any goods or vessels.

Fixing of rates

- The **Tariff Authority for Major Ports**, established under the 1963 Act, fixes the scale of rates for assets and services available at ports. Under the Bill, the **Board or committees appointed by the Board** will determine these rates. They may determine rates for:
 - services that will be performed at ports,
 - the access to and usage of the port assets, and
 - different classes of goods and vessels, among others. Such fixing of rates will not be with retrospective effect and must be consistent with the provisions of the Competition Act, 2002, or any other laws in force, subject to certain conditions.

Financial powers of the Board

- Under the 1963 Act, the Board has to seek **prior sanction of the central government to raise any loan**. Under the Bill, to meet its capital and working expenditure requirements, the Board may raise loans from any:
 - scheduled bank or financial institution within India, or
 - any financial institution outside India that is compliant with all the laws.
 - However, for loans above 50% of its capital reserves, the Board will require prior sanction of the
 - central government.

Corporate Social Responsibility

- The Bill provides that the Board may **use its funds for providing social benefits**.
- This includes development of infrastructure in areas such as **education, health, housing, and skill development**. These benefits could be provided for the Board's employees, customers, business partners, local communities, environment and the society at large.

Public Private Partnership (PPP) projects

- The Bill defines PPP projects as projects **taken up through a concession contract** by the Board. For such projects, the Board may fix the tariff for the initial bidding purposes.
- The appointed concessionaire will be **free to fix the actual tariffs based on market conditions, and other conditions** as may be notified.
- The revenue share in such projects will be on the basis of the specific concession agreement.

Adjudicatory Board

- The Bill provides for the constitution of an Adjudicatory Board by the central government. This Board will replace the **existing Tariff Authority for Major Ports constituted under the 1963 Act**. It will **consist of a Presiding Officer and two members**, as appointed by the central government.
- Functions of the Adjudicatory Board will include:

- certain functions being carried out by the Tariff Authority for Major Ports,
- adjudicating on disputes or claims related to rights and obligations of major ports and PPP concessionaires, and
- reviewing stressed PPP projects.

Penalties

- Under the 1963 Act, there are various penalties for contravening provisions of the Act. For example, the penalty for setting up any structures on the harbours without permission may extend up to Rs 10,000, and

DRAFT AMENDMENTS TO CENTRAL MOTOR VEHICLES RULES, 1989

GS-II POLICY

Context

- The Ministry of Road Transport and Highways released draft amendments to the Central Motor Vehicles Rules, 1989 under the Motor Vehicles Act, 1988.
- The Act provides for **standards for motor vehicles, grant of driving licenses, and penalties for violation** of these provisions.
- The draft amendments seek to **regulate electronic monitoring and enforcement** of road safety norms. Key features include:

Electronic Enforcement Device (EED):

- The draft Rules define such a **device to include speed cameras, CCTVs, and body wearable cameras**.
- These devices can be used to **issue a challan after issuance of an approval certificate** by the police.
- The certificate must be **renewed annually by appropriate police officers** or a designated authority.

Placement: State governments must ensure that EEDs are placed in locations such as:

- National Highways which are high in risk and density,
- critical junctions at state capitals, and
- critical areas in cities with populations of more than ten lakh people. State governments must ensure that warning signs are placed before areas monitored by EEDs.

Offences

- The draft Rules list certain violations where an EED can be used to issue a challan. These include:
 - driving over speed limits,
 - stopping or parking at an unauthorised location,
 - not adhering to specified safety measures such as use of seatbelts or wearing of a helmet, and
 - jumping a red light or a stop sign.
- The notice of the offence must be sent within 15 days of occurrence. Electronic records used to register an offence must be stored for a minimum of 30 days.

THE J&K REORGANISATION (AMENDMENT) BILL PASSED

GS-II POLICY

Context

- It amends the Jammu and Kashmir Reorganisation Act, 2019. The Act provides for the **bifurcation of the state of Jammu and Kashmir (J&K)** into the Union Territory of J&K and Union Territory of Ladakh.
- The Bill repeals the Jammu and Kashmir Reorganisation (Amendment) Ordinance, 2021.

Key features of the Bill include

Application of provisions on elected legislatures

- The Act provides that **Article 239A** of the Constitution, which is applicable to the union territory of **Puducherry**, shall also apply to the union territory of J&K.
- **Article 239A** provides for the constitution of a union territory of Puducherry with:
 - A legislature, which may be elected, or partly nominated and partly elected, or
 - A Council of Ministers.
- The Bill states that in addition to Article 239A, any other provision of the Constitution which refers to **elected members of a legislative assembly of a state** and is also applicable to the **union territory of Puducherry**, will apply to the union territory of J&K.

Merging of administrative cadres

- The Act specifies that the members of the **Indian Administrative Service, the Indian Police Service and the Indian Forest Service** serving in the state of J&K would continue to serve in the two union territories, based on **allocation decided by the central government**.
- Further, in future, postings of officers in the two union territories would be from the **Arunachal Goa Mizoram Union Territory (AGMUT) cadre**.
 - The AGMUT cadre covers the three states of **Arunachal Pradesh, Mizoram and Goa**, as well as **all the union territories**.
- The Bill amends these clauses to provide for the merger of the officers in the **existing cadre of J&K with the AGMUT cadre of officers**.

NATIONAL URBAN DIGITAL MISSION & OTHER DIGITAL INITIATIVES

GS-II POLICY

Context

- The Ministry of Housing and Urban Affairs **launched digital initiatives to promote use of digital technologies** to identify and address issues in urban planning and governance.

Details

- These include:
 - the National Urban Digital Mission (NUDM),
 - Indian Urban Data Exchange,
 - the SmartCode Platform, and
 - the City Innovation Exchange programme.
- NUDM seeks to create a shared digital infrastructure for urban areas to consolidate digital initiatives of the Ministry and address local challenges. Its governing principles will be similar to the National Urban Innovation Stack (NUIS) announced in 2019.
- NUIS was intended to identify urban challenges and solve them at speed and scale using digital technologies and Infrastructure.
- The data exchange programme seeks to create an open-source interface to allow users including urban local bodies to share, request, and access datasets related to cities, urban governance, and service delivery.

SmartCode Platform

- It will be a **repository for open-source code** for applications in urban governance.
- Source code of an open-source software is **freely available for possible modification and redistribution**.

City Innovation Exchange Platform

- It was launched to **enable all citizens to design, test and deliver innovations** that can address urban challenges.
- The platform will operate under the **Smart Cities Mission**. There were 400 start-ups with 215 solutions across 100 smart cities registered, as of February, 2021.

Context

- The government under the ambit of the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021** has brought in detailed **guidelines for digital content** on both digital media and Over The Top (OTT) platforms.

Background

- The inexorable growth of OTT channels has infused **creative talent into film-making**, aided by the absence of **overbearing censors and vested interests**, although it might be argued that it also has a **small minority pursuing crass commercialism**.
- COVID-19 buoyed subscription revenues from home-bound viewers for OTT ventures streaming films, reality shows, serials and documentaries, and with cinemas closed, even **broke the industry taboo against online-first film releases**.
- The urgency of this code arises not from any challenge to law and order or morality posed by films, but the gauntlet of police and court cases that film-makers and the channels are now having to run.
- Governments are also **lending tacit support to the view that creative expression** may be becoming too influential to be left free.
- The **Internet and Mobile Association of India (IAMAI)** said 17 platforms, including Netflix, Disney+ Hotstar and Amazon Prime Video, have adopted a 'toolkit' for effective implementation of the self-regulation code introduced last year.
- The industry body added that it will set up an '**IAMAI Secretariat for the Code**', comprising representatives from the signatories to the Code, as well as the IMAI, for its implementation

New Rules For Digital Media Platforms

- The new rules lay down a **three-tier grievance redressal mechanism**.
- The government has equipped itself with **"emergency" powers to block public access** to any information.
- The rules lay down **10 categories of content** that the social media platform should not host.
- Three level of the grievance redressal system:**
 - First Level:**
 - It will be at the level of each OTT provider. Each complaint will have to be addressed within 15 days.
 - If the complaint is not satisfactorily addressed, then the complainant can scale it up to second level.
 - Second level:**
 - It is a **self-regulatory body collectively established by the OTTs**.
 - This body will be headed by a **retired judge of the Supreme Court, a High Court, or an independent eminent person** from the field of media, broadcasting, entertainment, child rights, human rights or other relevant fields.
 - This self-regulatory body also has **"censuring" powers in case of any incriminating content**.
 - Third level:**
 - It is at government level.
 - The government has equipped itself with **overriding powers in the form of "oversight mechanism"**.
 - An **inter-ministerial committee** will perform this function and it will largely have the same powers as the collective self-regulatory body of the OTTs.

IAMAI Secretariat for the Code

- It sets out clear tent poles that the **OCCPs [Online Curated Content Provider]** need to undertake to achieve a **common goal** of entertaining millions of Indians responsibly.

- The IMAI said the toolkit not only **aims to set out guiding principles and code of ethics**, it also addresses the feedback received from the **Ministry of Information and Broadcasting** on the issues of conflict of interest and prohibited content.
- The industry body said the toolkit will also provide for **procedures to effectuate the various provisions of the Code**; assist the signatories in fulfilling their commitments and responsibilities as set out in the Code and achieve effective self-regulation goals as envisioned by the signatories in the Code.

Supreme Court Order

- Law & IT Minister Ravi Shankar Prasad cited a 2018 **Supreme Court observation** in addition to **discussion in Rajya Sabha** as the need for coming up with rules to **empower the ordinary users** of digital platforms to **seek redressal for their grievances and command accountability** in case of infringement of their rights.
- In 2018, the Supreme Court observed that the Government of India may frame necessary guidelines to eliminate child pornography, rape and gangrape imageries, videos and sites in content hosting platforms and other applications.

About OTT

- An over-the-top (OTT) media service is a streaming media service **offered directly to viewers via the Internet**.
- OTT **bypasses cable, broadcast, and satellite television platforms**, the companies that traditionally act as a controller or distributor of such content.
- It has also been used to **describe no-carrier cell phones**, where all communications are charged as data, avoiding monopolistic competition, or apps for phones that transmit data in this manner, including both those that replace other call methods and those that update software.
- The term is most synonymous with **subscription-based video-on-demand (SVoD) services** that offer access to film and television content.

Internet & Mobile Association of India:

- Internet & Mobile Association of India (IAMAI) is a **not-for-profit industry body** registered under the Societies Act, 1896.
- Its mandate is to **expand and enhance the online and mobile value added services** sectors.
- IMAI also put forward the **problems and requirements of the businesses to the consumers**, shareholders, investors and the government of India.
- The main purpose of the Internet and Mobile Association of India is to **improve and expand the value added services** pertaining to mobiles and several online services.

New Rules For Intermediaries

- The 2011 Rules required intermediaries to **maintain records of the content and related information** for a period of **ninety days** after receiving a complaint with regard to such content.
 - The 2021 Rules require intermediaries to maintain the records of any content referred to in a complaint for a period of **one hundred and eighty days or more** as may be notified by the authorities.
- As per the 2021 Rules, where intermediaries collect information from a user for registration on the computer resource, it shall **retain his information for a period of one hundred and eighty days** after any **cancellation or withdrawal of his registration**.
- Intermediaries are required to expressly provide **details of the ownership and/or origin of the information** being made available to the users on the platform.
- Intermediaries must **allow the users who either register for their services or use their services within India**, to **voluntarily verify themselves** as per the mechanism deemed appropriate by the SSML.

- Producers of entertainment content, especially stand-up comedians, are increasingly becoming the target of legal action. The culture of taking offence started right around the time stand-up comedy began picking up an audience on the Internet.
- Example:** In 2011, comedy was still happening mostly in clubs. As soon as comedy began reaching out to the masses on YouTube, some mainstream comedians began attracting huge amounts of outrage.

Changes since 2015:

- Initially, it was just people coming on stage and talking about their nagging wives, women drivers, and so on. But as a particular art form evolves, you start to **explore different topics, the depth and richness of your material increases**.
- As comedy as an art form began to gain traction, it led to people doing satire, making **observations on society, questioning power structures**. It was no longer limited to elites in a comedy club.
- It was **picking up a mass audience and creating conversations online**, which is why comedy started getting a lot of attention.

Legal Provisions in IT Act

- Although there are **no specific provisions under the IT Act of 2000** that define privacy, or any penal provisions relating to privacy, some sections of the Act deal with **very specific cases of data breaches and privacy**.
- Section 43A:**
 - Provides for **compensation if an intermediary is negligent in using reasonable and good quality security and safety parameters**, which can protect the data of their users and citizens.
 - Though this section says that companies must use “**reasonable security practices and procedures**”, the same is not defined in very clear terms and can be interpreted in various ways.
- Section 72:** It has penal and imprisonment provisions if a government official in the course of his or her duty, gets access to certain information, and leaks it subsequently.
- Section 72A:** Provides for criminal punishment if a service provider, during the course of providing the service or during the contract period, discloses personal information of the user without them being aware of it.

Legal Provisions in IPC

- Under the IPC, there are **provisions relating to offending religious sentiments, the criminal defamation law, the obscenity laws**, and provisions for statements that amount to public mischief.
- If the objectionable content is available online, there are also implications under the **Information Technology Act**.
 - The problem is that the **law affords protection to the prickliest common denominator** in society.
- Offending someone’s sentiments is **itself recognised as a harm under criminal law**.
 - This is unfortunate because the **role of art and comedy is often to provoke** and to offend.
- Scope of Section 295A:**
 - There is **no restrictive reading in the law as to what qualifies as a religion**. It’s not been defined under the IPC. The consequence is that it can be applied to, for instance, a **self-proclaimed godman or a cult**.

‘Anti-national’ jokes:

- Often, criticism of the government is elevated to the **status of sedition**. And that’s what is used to **prosecute individuals who criticise the government**.
- Though the ‘anti-national’ label has **no legal status**, the labeling **feeds into the prejudice** that’s created against these individuals through the media.

Arguments in favour of OTT censorship

- Censorship helps in preventing **anti-social, hateful and explicit content** from reaching the audience and thereby social order can be maintained.

- Censorship can protect the **sentiments of people** by preventing the content that is hurtful to some cultures or communities.
- Censorship will bring it on par with the movie industry.

Arguments against OTT censorship

- To get the certificate & a clearance, sometimes **producers are forced to struggle**, especially when the content criticises government & their policies. This will **discourage diverse opinions, innovation & creativity**. So, there will be a **threat to freedom of expression**.
- **Power & money may control** the content to pursue their goals and political propaganda.
- For some people, a film may seem offensive but **for some others, it may seem progressive**. So, it is unfair to dictate what to watch and what not to watch.
- We already have laws such as the '**Information & Technology Act, 2000**' to deal with **hateful and explicit content**. And hence there is no need for censorship.
- These days, people are preferring OTT content over television content, because of the **quality of content**. But if it is censored, the content may stop to the same level as television content. This may discourage investment in OTT platforms. OTT platforms created many employment opportunities, and lack of investment may reverse the progress.
- Unlike Television, **people can choose what to watch on OTT platforms**. And OTT platforms mention the appropriate age to watch that content. So, there is no need to censor them.
- There is so much **explicit content present on the internet**. Censoring only OTT platforms leaving the entire internet seems unfair.
- **Self-regulatory bodies are better than government censorship** because the audience can watch diverse content rather than narrow views.

Way Forward

- The collective initiative of the OTT services under the aegis of the **Internet and Mobile Association of India**, which places **emphasis on abiding by the IPC, laws on women's and children's rights, copyright and age-appropriate certification** and parental control, while upholding Constitutional provisions on free speech, should be given an opportunity to work.
- Such a voluntary code is **consistent with the recommendations of the I&B Ministry's Expert Committee on film certification** chaired by **Shyam Benegal in 2016**.
 - The panel upheld **creative expression and full ownership of any visual production**, leaving viewing decisions to audiences, more accurately classifying films by viewer age, and ensuring transparency in the way reviewing bodies are constituted.
- The idea that films must be **pre-censored and arbitrary cuts made by government-appointed nominees**, mostly out of prejudice, is antiquated and repugnant to liberal societies.
- Clearly, a plethora of **laws are available to assess, based on complaints**, whether there has been an egregious violation of law, and this determination ought to be made by unimpeachable bodies representing a wide spectrum of civil society.
- A policed approach to films and media can only grow a monoculture of propaganda.

MEDIA FREEDOM

GS-II POLITY

Context

- The ED's raids in the office of independent digital news platform NewsClick, and in the residence of its promoter and editor-in-chief, have invited justified condemnation from organisations representing the media.
- There is every likelihood that this operation is linked to the platform's in-depth coverage of ongoing protests as well as the various struggles of the people and the grassroots organisations that represent them.

Background

- The present regime's record is quite dismal when it comes to the obvious **use of central agencies such as the CBI, ED, IT and even the NIA**, to rein in dissenting voices.
- It is unfortunate that specialised **agencies are allowing themselves to be used** as force multipliers in political battles against sections of the Opposition.
- Amidst claims that there are **varying kinds of conspiracies against the government and India**, it is no surprise that relentless journalistic focus on protests, which are basically steps taken in pursuit of redress for public grievances, is inviting repressive action.

Status of Freedom of Press in India:

- **Romesh Thapar v/s State of Madras**: Freedom of speech & of the press lay at the foundation of all democratic organization, for without free political discussion no public education, so essential for the proper functioning of the process of popular government, is possible.
- **Union of India v/s Association for Democratic Reforms**: Freedom of speech and expression includes the right to impart and receive information which includes freedom to hold opinions.
- **Indian Express Newspapers v/s Union of India**: The courts have duty to uphold the freedom of press and invalidate all laws and administrative actions that abridge that freedom. Freedom of press has three essential elements. They are:
 - Freedom of access to all sources of information,
 - Freedom of publication, and
 - Freedom of circulation.

Restrictions on Freedom of Press in India:

- Freedom of press is **not absolute in nature**. It is subject to certain restrictions which are mentioned in **Article 19(2) of the Constitution**. The following are the grounds of restrictions laid down in Article 19(2) :-
 - Sovereignty & Integrity of India
 - Security of the State
 - Friendly relations with Foreign States
 - Public Order
 - Decency or Morality
 - Contempt of Court

Freedom of The Press for a Democracy to work

"The press is the only tocsin of a nation, when it is completely silenced, all means of general effort are taken away."

- Thomas Jefferson

- The press acts as a **medium of communication between the government and the people**.
 - Freedom of the press is so necessary that multiple times in India it has been controlled, even during the British rule, the press worked so vigorously in promoting the idea of freedom that they had to bring Indian press Act 1910 and then again implemented later in 1931-1932.
- The Press is considered the **fourth pillar of democracy**, that **works independently**, outside the government.
 - The fact that makes it the **most specialised institution** is that common people can participate in it freely and can share their problems, opinions, facts and figures.
- It stands for the **civic rights, political rights and religious rights of the people**.
 - Media plays a vital role in **forming opinions and influencing decision making** by the people, comparing present and past experiences, actions, works etc. done by different governing bodies.
 - It also helps in **giving feedback, exposure and conduit mechanisms** by the people to the government, so that the representatives can work according to their needs and requirements.
- Citizens receive the information about the **new policies, projects, schemes, laws, amendments etc. through the media**, by which they can assess the working of the government and analyse if the deeds are beneficial for them or not.

- The Press also acts as a **crucial instrument for accounting**.
 - A person can forget the promises made by their leaders but a printed newspaper, video, or audio recording will act as a piece of reminding evidence for both citizens and the government.
 - The people who work in the press must be unafraid. Some brave journalists do perform string operations, do investigations and find out the reality. It tends to fight against corruption, unfulfilled promises, disloyal behaviour or misuse of power in public or private life.

Factors which threaten the freedom of the press


- **Corporate Sector:** Not only does the government try to control the press but sometimes, even the corporate sector tries to control it in order to increase their business sales or other personal users may control the press by paying the editors, writers and reporters.
- **The killing of Reporters And Journalists:** Many a time, reporters and journalists are killed for presenting a piece of news or covering a story by the supporters of a particular group, organisation or political party.
- **Targeting:** Press workers are often targets of hate campaigns, trolling, character assassination etc.

Conclusion

"The role of journalism should be service. The Press is a great power, but just as an unchained torrent of water submerges the whole countryside and devastates crops, even so an uncontrolled pen serves but to destroy."

- Mahatma Gandhi

- There are three pillars of a democracy viz. the **legislative, the executive & the judiciary**. The press acts as the **fourth pillar of a democracy**. The press has played many significant roles in **delivering justice, public welfare** etc.
- The **National Commission to Review the Working of the Constitution (NCRWC)** has in its final report submitted to the Government recommended that **Article 19(1)(a)** which deals with "**freedom of speech & expression**" must expressly include the freedom of the press and other media, the freedom to hold opinion and to seek, receive and impart information and ideas.
- The Press is the **voice of the voiceless** and should promote the **rights of the minority**; it is the duty of the press of any country to ensure that the government is functioning properly and no section of the society is left behind or is not treated well. It ensures the proper functioning of the executive Legislature and the judiciary because it raises questions!



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Context

- Two new books reveal stark systematic weaknesses of the Indian state (irrespective of ideology in power) in serving India's poorer citizens.

Strong states are based on three pillars.

- They are **built with support from the people**;
- They have a **strong administrative machinery** to provide **stability and deliver public services**, and
- They have the **managerial ability to shape and implement change**.

What do builders of strong states do?

- Builders of strong states have bound people around a shared identity**: ethnic, racial, or religious; Aryan, Han Chinese, Japanese, Muslim, Catholic Christian.
- The peoples' identity is not formed by legal constitutions. **Strong leaders who unite people** around their shared identity are even given liberty by the people to change constitutional structures because they trust their leaders do it for the sake of citizens.
- It is **hard to unite Indians around a shared ethnic or religious identity** because of
 - Diversity** among India's races and religions.
 - Entrenched **caste divisions**.

Indian bureaucracy's role

- India **inherited the 'iron frame' of civil services** from Britain. It was **designed to provide stability and compliance with rules**.
- It was not equipped to shape change, the third requirement of a good developmental state. Therefore, there are **demands for its reform**.
- Simultaneous management of both change and stability is **necessary for the evolution of good states and societies**.
- Unmanaged change can cause chaos**, while too little change entrenches the established system. This was the essence of the **'great debate' in the 18th century** between Edmund Burke, the leader of the conservative movement in Britain, and Thomas Paine, a thought leader of the French and American revolutions.

Stability vs. change:

- The great debate, about **stability versus change for good governance**, evolved into new arguments in the 20th century: **capitalism versus socialism**; and **markets versus governments**.
- By the end of the century, **capitalism and markets** were positioned in the public imagination as the prime movers of economic growth, and socialists and governments as retarders of progress.
- Capitalists took on the mantle of **'wealth creators', relegating governments to the role of 'redistributors'**.
- A popular slogan that **wealth must be created before it can be redistributed** leads to the conclusion that there should be less government when countries are poor, and more freedom for large, private, wealth creators.
- Moreover, with the logic that governments are stodgy, even public services such as health and education are handed over to private enterprises.

Role of State

- The state must **perform primarily for its poorest citizens** for economic growth to be equitable and sustainable, and not for investors in corporations. Leaders of states must ensure that all citizens have opportunities to work and earn.

- They must also **ensure that all citizens, even those who cannot afford it**, have good health and education.

Private vs. Public:

- The **ideology of private rather than public has moral consequences**.
- The purposes of a private enterprise and the state are different. Private sector managers **move from one competitor to another**, like professional mercenaries, serving the interests of owners of corporations wherever in the world they may be.
- Whereas public servants, whose **mission is to build their nations and states**, are expected to devote their lives to the care of citizens in their own countries.

GDP cannot be the scorecard

- The pandemic has revealed the **chronic inability of the Indian state** to take care of its poorest citizens. The scorecard for the nation cannot be its GDP.
- **Economic justice, environmental sustainability, and improvement of the dignity** of all citizens must be measured too, and these must improve much faster.
- The present '**top up the top**' model of India's economic growth, with hopes of trickle down, is not delivering these.

Way Forward

- India must build a strong and good state. This requires: **political leaders who can unite all Indians into one India**, whatever their religion, race, or caste; **cadres of good public managers to build and run services** for all citizens equitably; and **business leaders** who are not just wealth creators for themselves (distributing some of it in philanthropy), but creators of opportunities, very soon, for millions of Indians to earn and create wealth for themselves too.
- Political leaders, administrators, and business leaders must work together, with a shared vision, to build an Indian state that is good for all citizens, especially the poorest. Time is running out.

SEDITION

GS-II POLITY

Context

- Recent charges of sedition against individuals have brought back focus to a law introduced in the Indian Penal Code in 1870.

Evolution of Sedition law

- The law was originally drafted in **1837 by Thomas Macaulay**.
- Section 124A was inserted in **1870** by an amendment introduced by Sir James Stephen when it felt the need for a **specific section to deal with the offence**.
- **Section 124A IPC**:: "Whoever, by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards, the Government established by law in India, shall be punished with imprisonment for life, to which a fine may be added; or, with imprisonment which may extend to three years, to which a fine may be added; or, with fine."

Punishment

- Sedition is a **non-bailable offence**. Punishment under the Section 124A ranges from imprisonment up to **three years to a life term**, to which fine may be added.
- A person charged under this law is **barred from a government job**. They have to **live without their passport** and must produce themselves in the **court at all times** as and when required.

Major Supreme Court's Judgment on Sedition

- **Kedar Nath Singh v. State of Bihar (1962)**
 - The Supreme Court upheld the constitutional validity of sedition and noted it as being a **reasonable restriction on free speech** as provided in Article 19(2) of the Constitution.
 - It made clear that a **citizen has the right to say or write whatever she likes** about the government, or its measures, by way of criticism or comments, as long as she does not incite people to violence against the government established by law or with the intention of creating public disorder.
- **Disha Ravi Case (2021)**
 - Mere engagement with persons of dubious credentials is not a crime.
 - Any person with dubious credentials may interact with a number of persons during the course of his social intercourse.
 - As long as the engagement/interaction remains within the four corners of law, people interacting with such persons, ignorantly, innocently or for that matter even fully conscious of their dubious credentials, cannot be painted with the same hue.
 - The court went a step ahead to rebut the state's claims of Ravi being part of a "global conspiracy" in recognising that the fundamental right to freedom of speech and expression **"includes the right to seek a global audience"** and that **"there are no geographical barriers on communication"** as long as it's **"under the four corners of law."**
 - In sedition, the court analysed the contents of the toolkit and concluded that it was "innocuous" and did not call for violence.

Court Guidelines:

- These inter alia include an **objective evaluation of the material to form an opinion** on whether the words and actions cause disaffection, enmity and disloyalty to the government as they must be of the magnitude that they incite violence or tend to create public disorder.
- The Court also directed **obtaining a legal opinion in writing from a law officer of the district** who must give reasons on how the pre-conditions are met.
- This needs to be followed by a **second opinion from the State's public prosecutor.**

Arguments in support of Section 124A

- Section 124A of the IPC has its utility in **combating anti-national, secessionist and terrorist elements**
- It protects the elected government from attempts to **overthrow the government with violence and illegal means**. The continued existence of the government established by law is an essential condition of the stability of the State
- If contempt of court **invites penal action, contempt of government** should also attract punishment
- Many districts in different states face a **Maoist insurgency and rebel groups** virtually run a parallel administration. These groups openly advocate the overthrow of the state government by revolution

Arguments against Section 124A

- The Bombay High Court issued **guidelines which the police must follow** prior to invoking the provisions of sedition.
 - Courts have on numerous occasions **cautioned law enforcement agencies not to misuse the provisions on sedition**, and follow court directions, regrettably, they are grossly ignored. The problem therefore lies in the **poor implementation of the law and guidelines.**
- In the Internet age, where we are all consumed by **social media** and where information travels at the speed of lightning, what can lead to public disorder has itself become debatable.
- The **U.K. repealed the offence of sedition in 2010** and India is holding onto a relic of the British Empire.
- In 2018, the **Law Commission of India** sought consideration on whether keeping Section 124A would serve any purpose and whether reducing the rigour of the law of sedition would be detrimental or beneficial to the nation.
- Section 124A is a **relic of colonial legacy and unsuited in a democracy.**

- **Dissent and criticism** of the government are essential ingredients of robust public debate in a vibrant democracy. They should not be constructed as sedition. **Right to question, criticize and change rulers** is very fundamental to the idea of democracy.
- The terms used under Section 124A like '**disaffection**' are **vague and subject to different interpretations** to the whims and fancies of the investigating officers.

Suggestion: An Effect-based Test

- Till the law on sedition continues to remain on our statute book, courts must adopt what some **Western countries** follow: an **effect-based test which examines the effects of the seditious text rather than a content-based test** which reviews the text alone.

EXPLOSION OF QUOTA DEMANDS

GS-II POLITY

Context

- The Karnataka government has been besieged in recent weeks by **demands from caste groups asking to be included among beneficiaries of job and education quotas** in various categories, or to be placed in a category different from where they are currently.
- Despite an **upper limit of 50 per cent reservations for all caste groups** together, there is a strong push for quotas from even sub-sects of caste groups that are considered to be dominant communities.

Karnataka's current reservation policy

- Reservations for Scheduled Castes, Scheduled Tribes, Backward Classes, and Muslims are capped at 50% in accordance with an order of the Supreme Court.
- The quota break-up is as follows: **Category I** (Backward Classes) 4%; **Category II A (OBCs)** 15%; **Category II B (Muslims)** 4%; **Category III A** (Vokkaligas, etc.) 4%; **Category III B** (Lingayats, Marathas, Bunts, Christians) 5%; SCs 15%; and STs 3%.
- A total 95 communities and their sub-sects are recognised as Backward Classes, and 102 communities and their sub-sects as OBCs.

What are the major communities in Karnataka in terms of population?

- The **Veerashaiva Lingayats** are considered the **single largest entity in Karnataka's 6-crore population**, making up around 17%.
- **Vokkaligas** are at 15%, **Muslims** 9%, and **Kurubas** around 8%.
- The Backward Classes block of various sub-castes minus the Kurubas make up around 25%. SCs are around 15%, and STs 3%.

What are the new demands for reservations in Karnataka?

- The most pressing demands are from the agricultural Panchamasali sub-sect of the Veerashaiva Lingayats; the dominant Veerashaiva Lingayat community as a whole; the cattle-herding Kurubas; the tribal community of Valmiki Nayaks; and the agricultural community of Vokkaligas.
- The **Panchamasali Lingayats** are demanding inclusion in the **OBC category to be eligible to avail 15% reservations**; and the entire Veerashaiva Lingayat community too, is demanding OBC categorisation for 15% reservation.
- The Kurubas want to be part of STs, who currently have 3% reservation, and the Valmiki Nayaks are demanding expansion of the ST quota from 3% to 7.5%. The Vokkaligas, who are a dominant community, are also demanding inclusion in the OBC category.

Impact on communities

- With over 100 OBC groups already identified as OBC, the inclusion of Lingayats and Vokkaligas – who make up a large chunk of the state's population – will hit the smaller OBC groups.
- Similarly, the inclusion of the Kurubas will pinch the other STs, who already think their share of 3% quota is too small.
- Kuruba leaders have demanded that the quota should be raised to 13.5% to facilitate their inclusion.

BAIL AS RIGHT

GS-II POLITY

Context

- In granting bail for six months to poet Varavara Rao in the Bhima Koregaon case on medical grounds, the Bombay High Court has affirmed the principle that **even the stringent provisions of an anti-terrorism law are not invincible before a prisoner's constitutional rights.**

Background

- Jailed under the draconian **Unlawful Activities (Prevention) Act**, Mr. Rao, 82, suffered from a host of ailments, and his **condition was deteriorating** until he was treated at the Nanavati Hospital on the **intervention of the National Human Rights Commission.**
- The court **overruled the National Investigation Agency's objection** that bail should not be granted on medical grounds once an undertrial prisoner's bail application was rejected on merits under UAPA, as long as access to treatment in a government hospital was available.
- The NIA had argued that in view of the **statutory bar on granting bail under Section 43D(5) of the UAPA** if the accusation against a person is prima facie true, any bail given on health grounds would open up the floodgates to similar petitions.
- The court looked at Mr. Rao's plight from the perspective of his **right to life under Article 21.**

Types of Bail in India:

- **Regular bail:** A regular bail is generally granted to a person who has been arrested or is in police custody.
- **Interim bail:** This type of bail is granted for a short period of time and it is granted before the hearing for the grant of regular bail or anticipatory bail.
- **Anticipatory bail:** Anticipatory bail is granted under section 438 of CrPC either by session court or High Court.

Bail in UAPA

- Bail is routinely denied in most cases under UAPA. It became a watertight embargo since the **Supreme Court in 2019 gave a ruling** that made it nearly **impossible for anyone arrested under UAPA** to be released on bail, unless the accused could demonstrate that the charges against them were prima facie untrue.
- However, a few recent judicial decisions have sought to carve out exceptions. The Supreme Court laid down recently that **prolonged incarceration without any possibility of an early completion of trial** could be a ground for granting bail.

Legal Position in India

- **The Criminal Procedure Code, 1973** does not define bail or the amount of security that is necessary to be paid by the accused for securing his release.
- Therefore, the amount to be paid for the bail is the matter of discretion of the court.
- According to the **78th report of the Law Commission**, nearly **55% of the prison population is under-trials**, the reason for such a large number of people still behind the bars is that they are poor and thus unable to pay the amount that is demanded from them.

Refusal to give Bail: Against the Fundamental Right

- **Article 21** of the Constitution provides us the **right to life and liberty**. Such right guarantees everyone in the territory of India, life with all the freedom to enjoy one's life and liberty.
- Personal liberty is **deprived when bail is refused**, is too precious a value of our constitutional system, that the crucial power to negate it is a **great trust exercisable not casually but judicially with lively concern** for the cost to the individual and the community.
- A right to bail was not inserted as a right in the constitution of India, but it is quite implicit that it has been devolved as a right under Article 21 as a component of personal liberty.
- But, the system of bail in India is a **property-oriented approach**, and it is **erroneous on the part of anyone** to think that if one has money he can flee from the justice system.
- Thus, the focus of judicial discretion in bail should always be upon the aspects of personal liberty and equality of the individual provided under **Articles 14, 19 and 21** of the Constitution of India.

Conclusion

- Courts in many cases have laid down guidelines to be followed in deciding the amount of bail, but nothing has been done about it.
- There is an urgent need to review the bail system in the country so that even the economic condition of the criminal is kept in mind and it is important for the court to behave compassionately.
- Following facts can be taken into account before granting bail to a person:
 - The nature of the offense committed by the accused.
 - His financial condition and employment history.
 - His character, reputation and economic conditions.
 - Prior criminal records, if any.
 - The identity of those who vouch for his reliability.
 - Any other factors, taking into consideration the risk of the criminal's failure to appear.

ANTI-DEFECTION LAW

GS-II POLITY

Context

- The events in Puducherry highlight the **absurdity of the anti-defection law**. In what has now become the standard operating procedure, several MLAs from the treasury benches resigned, lowering the numbers required for a no-confidence motion to succeed.

Background

- The anti-defection law was included in the Constitution as the **Tenth Schedule in 1985** to combat the "**evil of political defections**".
- The main purpose was to **preserve the stability of governments and insulate them from defections of legislators** from the treasury benches.
- The law stated that any Member of Parliament (MP) or that of a State legislature (MLA) would be **disqualified from their office if they voted on any motion contrary** to the directions issued by their party.

Range of the provision

- The provision was **not limited to confidence motions or money bills**.
- It **applies to all votes in the House**, on every Bill and every other issue.
- It even applies to the **Rajya Sabha and Legislative Councils**, which have **no say in the stability** of the government.
- Therefore, an MP (or MLA) has absolutely **no freedom to vote their judgement** on any issue. They have to blindly follow the direction of the party. This provision goes **against the concept of representative democracy**.

Law of Anti-Defection:

- The law of Anti Defection states that if a member parliament of member legislative assembly:
 - Voluntarily gives up the membership of the party;
 - Votes or abstains for voting or defies any party whip;
 - Joins any other party.
- In these cases, the member will be disqualified from the party and he will not hold the position of a nominated or an elected individual under the party. Thus he will lose his position as an MP or an MLA.
- **Exceptions:**
 - Disqualification under the purview of anti-defection shall not apply in case of **split/merger of 1/3rd or more of the members** of a party to another party.
 - It shall also **not apply in the event of a merger i.e. 1/3rd of the members** or more merge with any other party. This exception where 1/3rd members were however **revised by the way of the 91st amendment in the constitution** and after which the provision of the split was removed and now it requires 2/3rd members of a party can merge with another party.

Role of representative

- There are two broadly accepted roles of a representative such as an MP in a democracy.
- One is that they are **agents of the voters and are expected to vote according to the wishes** and for the benefits of their constituents.
- The other is that their duty to their constituents is to **exercise their judgement on various issues towards the broader public interest**.
- They **deliberate with other MPs** and find a reasonable way through complex issues.
- The anti-defection law **turns the concept of a representative on its head**. It makes the MP **neither a delegate of the constituency** nor a national legislator but converts them to be **just an agent of the party**.

A broken chain in India

- In the recent vote on the impeachment of the former U.S. President Donald Trump, seven members from his party in the U.S. Senate, the Republicans, voted to convict him. Such a decision does not have any legal repercussion.
- In India, this chain of accountability has been broken by making legislators accountable primarily to the party. This means that anyone from the party having a majority in the legislature – which is, by definition, the party forming the government – is **unable to hold the government to account**.
- Further, all legislators have a ready explanation for their voting behaviour: **they had to follow the party's direction**.

Eroding legislatures

- An important consequence of the anti-defection law is the **hollowing out of our legislatures**.
- If an MP has no freedom to take decisions on policy and legislative proposals, what would be the incentive to put in the effort to understand the different policy choices and their outcomes?
- The core role of an MP to examine and decide on policy, Bills and budgets is side-lined.
- Instead, the MP becomes **just another number to be tallied by the party on any vote** that it supports or opposes.
- The framers of our Constitution did not intend this outcome. While introducing the draft Constitution, Dr. B.R. Ambedkar outlined the **differences between the presidential and parliamentary forms of government**.
- He said that the **presidential form (such as in the United States) had higher stability but lower accountability** as the President is elected for four years, and **cannot be removed except for proven misdemeanour**.
- In the parliamentary form, the government is **accountable on a daily basis** through questions and motions, and **can be removed any time** it loses the support of the majority of members of the Lok Sabha.
- The drafting committee believed that **India needed a government that was accountable**, even at the cost of stability. The anti-defection bill weakens the accountability mechanism.

Inducing instability

- What is more, it does not even provide stability. The political system has found ways to topple governments.
- This includes the methods used in Puducherry this week — of **reducing the total membership through resignations**.
- The Constitution was amended to ensure that any **person disqualified for defecting cannot get a ministerial position** unless they are re-elected; the way around this has been to **resign rather than vote against the party**.
- In other instances, the **Speaker — usually from the ruling party — has delayed taking a decision on the disqualification**.
- The Supreme Court has tried to plug this by ruling that the Speaker has to **take the decision in three months**, but it is not clear what would happen if a Speaker does not do so.
- The premise that the **anti-defection law is needed to punish legislators who betray the mandate given by the voters also seems to be flawed**.
- If voters believe that they have been betrayed by the defectors, they **can vote them out in the next election**.

Onus is on parties

- The problem arises from the **attempt to find a legal solution to what is essentially a political problem**.
- If stability of government is an issue due to people defecting from their parties, the answer is for parties to **strengthen their internal systems**.
- If they **attract members on the basis of ideology**, and they have **systems for people to rise within the party hierarchy on their capabilities** (rather than inheritance), there would be a greater exit barrier.
- These characteristics seem **absent in many of the political parties**, and we have seen a large number of defections despite the anti-defection law.
- To sum up, the anti-defection law has been **detrimental to the functioning of our legislatures** as deliberative bodies which hold the executive to account on behalf of citizens.
- It has **turned them into fora to endorse the decision of the government on Bills and budgets**. And it has not even done the job of preserving the stability of governments. The Tenth Schedule to the Constitution must be repealed.

INHIBITING FREE SPEECH

GS-II POLITY

Context

- When the Delhi Assembly summoned Facebook honcho Ajit Mohan to depose before its Peace and Harmony Committee, it unwittingly provoked a litigation that may have far-reaching **implications on federalism, the separation of powers and fundamental rights in India**.

Parliamentary privileges

- Parliamentary privileges are a **set of rights and immunities** that are **essential for the functioning of Parliament**.
- The **right to free speech in the House**, guaranteed to the Commons since 1689, and the **right to call for evidence and witnesses**, are central to the role of the legislature. \In our Constitution, both Parliament and State Assemblies were **conferred with the same privileges as the Commons**.
- Apart from discussions about judges, no other speech is barred for legislators in the text of the Constitution.

Implication on Federalism

- On the face of it, federalism imposes an insuperable challenge to the traditional broad reading of parliamentary privilege.
- The argument goes: Unlike the House of Commons, the powers of State Assemblies are more limited. **If the State Assembly cannot pass a law on a subject, how can it claim a right to discuss it or call witnesses for it?**
- However, this framing is misleading.

- First, legislation is **not the only goal of discussions**.
 - Legislatures also have a **separate non-judicial power of inquiry** which has been **judicially regarded as being inherent to the legislature**, flowing perhaps from what Walter Bagehot would call the expressive and informative function of the House.
 - Politically, the Assembly is the voice of the people of a State and their discussions are an expression of popular will.
 - Atomic energy is the exclusive preserve of the Union. Does that mean a State Assembly cannot inquire into the possible ecological implications of a nuclear waste site within the State?
- Second, the **legislative lists frequently overlap and courts resolve any conflict** by adopting a **test of pith and substance** of the law in question. But how would this apply pre-emptively at the **inquiry stage** when the discussions may or may not lead to legislation?
- Third, we live in the era of **co-operative federalism**. How can the Union and the States cooperate if they are barred from even discussing or taking evidence on issues beyond their limited legislative competence?
- Fourth, there is the **delicate issue of whether the courts can or ought to sit in judgment on the proceedings of State Assemblies** determining what can or cannot be discussed based on the courts' view of the topic. No theory of judicial review would justify such a deep dive into the "political thicket" to examine the proceedings of the House, something our Constitution expressly bars.

International Experiences

- The experiences of Canada and Australia, both common law federal jurisdictions, are also instructive.
- The **Canadian** chronicler Maingot hints about restrictions based on legislative competence but is careful to add that they are self-imposed, not court mandated.
- In **Australia**, the Privy Council in appeal from the High Court held that it is hardly possible for a Court to pronounce in advance as to what may and what may not turn out to be relevant to other subjects of inquiry on which the Commonwealth Parliament is undoubtedly entitled to make laws.



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KISAN RAIL: TOWARDS RAISING FARMER INCOMES

GS-III AGRICULTURE

Context

- As the Budget 2021 promises significant government spending to revive the economy post the pandemic, implementation of Kisan Rails across the country becomes important with its intent to boost farmers' welfare by doubling their incomes by 2022.

Background

- The Kisan Rails seems to have struck the right chord with the farmers given its popularity, leading the government to flag off the 100th Kisan Rail within a span of just four months.
- The idea of Kisan Rails was not completely new to the government. Successive governments in the past have mulled over the idea of capitalising on the robust Indian railway network and connecting it to the agricultural sector.
- The idea finally took off in July this year and since then has clocked impressive volumes across the country.

Kisan Rail:

- As per the announcement made in the Union Budget 2020-21, Indian Railways has started running Kisan Rail train services, to **transport perishables and agri-products**, including milk, meat and fish.
- This is multi-commodity, multi-consignor/consignee, multi-loading/unloading transportation product which is aimed at providing a **wider market to Kisan**.
- The primary objective of running Kisan Rail trains is to **increase the income in the farm sector by connecting production centers to markets and consumption centers**.
- Railways have been actively pursuing various stakeholders – including the **Ministry of Agriculture, state governments, and local bodies** – to plan roll out of Kisan Rail services. Based on demand pattern and feedback received from stakeholders, Railways have so far operated Kisan Rail services on eighteen routes.

Reason for growth of Kisan Rail

- There are many reasons that could have been attributed to the Kisan Rails becoming one of the most sought-after modes of transporting agricultural produce across many routes in the country.
- Robust Network:**
 - The most important among them is the **robust network of Indian railways**, which cuts through the remotest villages of the country and has helped small farmers get an opportunity to connect to the mainstream market and sell their agricultural produce.
- Subsidy:**
 - The government has **allowed a 50 percent subsidy for the transportation costs of fruits and vegetables** making it economically viable for farmers to transport their produce through the railways rather than the conventional roadways.
- Time Efficient:**
 - The Kisan Rails, on an **average, save up to 15 hours of travel time** and cuts the **transportation cost by 1,000 rupees per tonne**.
- No Threshold:**
 - No minimum price or quantity requirement** is set for farmers' consignment, facilitating even the small farmers with lesser quantity of produce to reach the bigger markets.
- Cold Storage:** These farmers now find an **alternative in the veritable cold storage on the wheels**.
 - Further, on the one hand, India today stands as the world's second largest producer of fruits and vegetables; on the other, it has also been the country that **wastes 16 percent of its agricultural produce** owing to factors like inadequate logistical support, **lack of cold storage facilities, supply chain bottlenecks, and under-developed market channels**.

- The introduction of Kisan Rails has helped tremendously in **reducing wastage**, providing a **cheaper and safer transport mode**, and thereby creating a win-win situation for both the farmers and railways.

Issues related to Kisan Rails

- Given the crucial role that the Kisan Rails could play in transforming Indian agriculture, we must acknowledge the bottlenecks which exist and which need to be addressed as soon as possible, thereby enabling each and every marginal farmer to access its benefits.
- **Cumbersome Procedure:**
 - One such bottleneck has been the **lengthy exercise that farmers need to undergo** if they want their produce to be transported through the Kisan Rails.
 - The product is **handled in their crates at least six times** — at the farm, at the source station, while loading it to the train at the source, unloading at the source, at the destination station, and finally at the mandi, resulting in increased chances of wastage of the produce.
- **Poor Storage Facility:**
 - The **cold storage facility in the country needs to significantly improve** and more and more stations must have cold storage facilities to maximise the potential of Kisan Rails.

Conclusion

- Kisan Rails has been among one of the several holistic steps that is **directed towards supporting 80 percent of the country's small and marginal farmers** and to transform the Indian agriculture sector.
- This is a step taken in the right direction as it intends to **capitalise on the robust railway network and cutting-edge technology** to connect small farmers around the country and allow them to gain access to far flung lucrative markets in the country and abroad.

FOOD SUBSIDY BUDGET

GS-III AGRICULTURE

Context:

- The food subsidy bill spiked sharply this year, from Rs. 1.15 lakh crore in the 2020-21 budget estimates to Rs. 4.22 lakh crore in the revised estimates.
- Spike is reflecting the **additional cost of free foodgrain distribution** in the wake of the COVID-19 pandemic, as well as the government's decision to **pay the Food Corporation of India's burgeoning loans and return** to budgetary transfers to fund the food subsidy bill.
- In 2021-22, the food subsidy budget has been set at almost Rs. 2.43 lakh crore.

Components of food subsidy:

- **Subsidy to FCI:** The Food Corporation of India (FCI) receives subsidy for procuring food grains from farmers at government notified prices and selling them at lower subsidised prices. It also receives subsidy for the storage cost incurred in maintaining buffer stocks.
- **Subsidy to states:** Under the decentralised procurement scheme, states may choose to undertake the operations of procurement, storage, and distribution on behalf of FCI, for which they are provided with subsidy.
- **Sugar subsidy:** Sugar subsidy is provided for giving one kg of sugar per month at subsidised rates to families covered under the Antyodaya Anna Yojana (i.e. poorest of the poor families).

Economic Survey on Food Subsidy

- It recommended an **increase in the issue price** at which poor households receive foodgrain, observing that the food subsidy bill is becoming an unmanageably large expenditure for the government.

- **Central issue price (CIP)** is the amount priority households pay, ₹2 per kg of wheat and ₹3 per kg of rice, to avail grain from the subsidized public distribution system.
- The issue price for wheat and rice has **not been revised since the introduction of the National Food Security Act in 2013.**
- It observed that the economic cost to the Food Corp. of India (FCI) for wheat rose to ₹27 per kg in 2020-21 from ₹19 per kg in 2013-14, while for rice it increased to ₹37 per kg from ₹26 per kg in 2013-14.
- The Union government spent **Rs. 80,000 crore in 2020-21 on food** subsidy towards different pandemic-related relief schemes, in addition to the regular food subsidy bill

NITI Aayog on Food Subsidy

- Niti Aayog put out a paper arguing for lowering coverage in food security law in order to **cut the subsidy bill.**
- The paper prescribes curtailment of food subsidy to people from **75% in rural areas and 50% in urban areas to 60% and 40% respectively.**
- This curtailment, the Niti Aayog estimates, will result in **savings of Rs 47,229 crore.**

Need of Food Subsidy

1. Rising Unemployment:

- According to the Centre for Monitoring Indian Economy (CMIE), even in September 2020, **21 million salaried jobs had been lost.**
- The **International Labour Organization** estimates a fall in wages of informal workers around **22.6% post lockdown.**
- There has been a serious **disruption in the lives and livelihoods of the vast majority** of the working population in India. It has also been acknowledged that the **situation has not totally improved**, nor is it likely to in the short or even medium term.

2. Food and hunger:

- According to a study conducted by the **Right to Food Campaign and Center for Equity Studies**, in 11 states in India, covering 3,994 respondents titled **Hunger Watch**, among **vulnerable communities in rural and urban areas**, there is a situation of acute hunger across the country.
- Over two-thirds of the respondents said that **nutritional quality worsened** and the **quantity of food intake reduced** (in September–October 2020) compared to pre-lockdown.

3. Status of health:

- The National Health Survey 5 of 2019 showed **high levels of malnutrition.**
- Several states across the country have reversed course and have been **recording worsening levels of child malnutrition** despite improvements in sanitation and better access to fuel and drinking water.

4. Fiscal position:

- This entire exercise of the Niti Aayog is to **curtail food subsidies that would result in savings of Rs 47,229 crore.** These Rs 47,229 crore would mean the difference between life and death or slow death for millions of poor working people.
- Contrast this with Rs 7, 94, 354 crore (almost 8 lakh crore) government losses in writing off loans to large corporations besides other subsidies and tax concessions.

The Sources of Rising Food Subsidy:

1. Rising Economic Costs:

- Rising Minimum Support Prices: **The minimum support price (MSP)** is one of the major components of economic costs and accounts for about **70 per cent of FCI's economic cost of foodgrains.**
- Procurement Incidentals: The procurement incidentals include statutory charges such as market fee, rural development/infrastructure development cess and VAT and non-statutory charges like dami/arhatia commission, mandi labour charges, cost of gunny bags, handling charges, internal transport and interest charges. Some of these charges are under the direct control of FCI and in some cases FCI has no role.

- **Distribution Costs:** The third component of economic cost is distribution cost consisting of freight, interest, handling and storage charges, transit and storage losses and administrative overheads, and typically constitutes about 16-17 per cent of the pooled economic cost of foodgrains.
- 2. **Central Issue Price of Foodgrains:**
 - The High Level Committee on Long Term Grain Policy (HLC) constituted by the Department of Food and Public Distribution in its report had recommended that APL price should be reduced to 80 per cent of economic cost and BPL price to 50 per cent of the economic cost excluding statutory levies.
- 3. **Increasing Procurement of Foodgrains and Carrying Cost of Stocks:**
 - Due to record production of foodgrains and steep increase in MSP during the last few years, procurement of foodgrains has also increased significantly.

Way Forward

1. **Promote Public-Public and Public-Private Partnership (PPP):**
 - The **State Governments undertake procurement of foodgrains** on behalf of the Government of India, and also store and distribute these food grains. The Central Government reimburses the entire expenditure.
 - The efforts should be made to bring more states in the fold of decentralised procurement as well as increase the basket of crops. These efforts would **reduce transportation and handling costs** as well as **improve storage and distribution efficiency**.
2. **Stop Open-Ended Procurement of Foodgrains:**
 - The procurement of foodgrains is open-ended and government agencies **purchase all the quantities offered by the farmers**.
 - This open ended procurement policy has led to **excessive stocks of foodgrains causing high procurement, distribution and carrying costs**.
 - **Restricting procurement** based on actual requirements rather than open-ended procurement policy will help in reducing food subsidy burden.
3. **Periodic Increase in Central Issue Price:**
 - Therefore, there is a **need to increase CIP every year** to contain food subsidy bills.
 - The **High Level Committee on Long Term Grain Policy** had also recommended that APL price should be 80 per cent of the economic cost and for BPL 50 per cent excluding statutory levies.
 - There is ample evidence that shows that Targeted PDS has failed and led to huge socio-economic costs due to the **errors of exclusion and serious issues of leakages and inefficiency**.
 - Since the cost of a universal PDS is not very high, there is a need to have the same CIP for APL, AAY and BPL households.

National Food Security Act, 2013:

- The Act provides for coverage of **upto 75% of the rural population** and **upto 50% of the urban population** for receiving subsidized foodgrains under Targeted Public Distribution System (TPDS).
- The eligible persons will be entitled to receive **5 Kgs of foodgrains per person per month** at subsidised prices of **Rs. 3/2/1 per Kg for rice/wheat/coarse grains**.
- Within the coverage under TPDS determined for each State, the work of identification of eligible households is to be done by States/UTs.
- **Pregnant women and lactating mothers and children** in the age group of **6 months to 14 years** will be entitled to meals as per prescribed nutritional norms under **Integrated Child Development Services (ICDS)** and **Mid-Day Meal (MDM)** schemes.
- **Pregnant women and lactating mothers** will also be entitled to receive maternity benefit of not **less than Rs. 6,000**.
- Eldest woman of the household of **age 18 years or above** to be the head of the household for the purpose of issuing of ration cards.

MULTIPURPOSE SEAWEED PARK

GS-III AGRICULTURE

Context

- Finance Minister Nirmala Sitharaman announced that **Seaweed farming is an emerging sector** and to promote seaweed cultivation, **Multipurpose Seaweed Park** will be established in Tamil Nadu.

Details

- India with **2.2 million sq. km EEZ area and 0.53 sq km continental shelf** has enormous scope for seaweed cultivation and development of indigenous seaweed-based industries.
- Moreover, seaweed farming has the **potential to provide alternative livelihood to at least 1.5 crore people**, especially coastal fisherwomen who have been engaged in natural seaweed collection for the past few decades.
- The Seaweed park in Tamil Nadu, with an **investment of Rs. 100 crores**, will be developed as a **hub to serve as a One Stop Park** for the **entire seaweed value chain**.

Seaweed

- Seaweed, or macroalgae, refers to thousands of species of **macroscopic, multicellular, marine algae**.
- Seaweed species such as **kelps provide essential nursery habitat** for fisheries and other marine species and thus protect food sources; other species, such as planktonic algae, play a **vital role in capturing carbon**, producing **up to 90% of Earth's oxygen**.
- Seaweed farming has become a **global agricultural practice**, providing food, source material for various chemical uses (such as Carrageenan), cattle feeds and fertilizers.
- Because of their importance in marine ecologies and for absorbing carbon dioxide, recent attention has been on **cultivating seaweeds as a potential climate change mitigation strategy** for biosequestration of carbon dioxide.

Opportunities and challenges for establishing successful seaweed farming in India

Opportunities:

- Bio-fertilizer and bio-stimulants** from seaweeds have immense potential in the Indian agriculture sector.
 - Seaweed bio-stimulants **increase crop yields and quality, reduce use of chemical fertilizers** and help improve the soil fertility.
 - India imports seaweed bio-stimulants made from *Ascophyllum*, *Macrocystis* and *Kappaphycus* worth US \$25–30 million annually from Canada, Norway, Indonesia, Philippines and China.
- Seaweeds have the potential to be used in a broad spectrum of products such as: **food, biofuels, chemicals, cosmetics, medicines**, etc.
 - The **National Bio-fuel Policy of India (2018)** targeted 20% blending of biofuels by 2030. It is estimated that, if **460 million tons of fresh seaweed biomass per year** could be harvested from a 10 million hectare area (corresponding to about **5% of total EEZ of India**).
- India's traditional food practices are **different from other Asian seaweed consuming nations**. Although **30% of the Indian population lives close to the sea**, people are not accustomed to eating seaweed.
- Seaweeds have tremendous business potential for generating revenue and jobs in **bioactive and cosmetic sectors** as they possess anti-ageing, anti-oxidant and moisturizing properties.
 - However, such applications are not yet developed at the industrial level in India and so an initiative to do so needs to be given priority.
 - Seaweeds with high pharmaceutical and cosmetic applications need to be identified and cultivated at large scale through industrial collaborations. Identifying suitable cultivable and scalable seaweed strains for pharmaceutical and cosmetic applications should be undertaken by an industrial public sector collaboration.

Challenges:

- **Cultivation Technology:**
 - Several cultivation technologies have been developed through **significant Indian research and development efforts**, and commercial seaweed farming is being **carried out using floating rafts along the southeast coast of India**.
 - Such structures are **suitable for near-shore waters** where low tidal amplitude and minimal tidal influences persist.
 - However, a major portion of the Indian coastline is **exposed to the open sea and has high tidal amplitudes**.
- **Seasonal Dependency:**
 - **Seasonal dependency** on Indian seaweed culture represents a crucial challenge needing to be overcome.
 - Monsoonal (Southwest and Northeast monsoon) periods in India are associated with occasional occurrence of **cyclones and typhoons** and create **high seawater turbulence and high tidal fluctuations**. Cultivation during this period is restricted to seed bank preservation.
- **High Cost:**
 - In India, seaweeds are mainly used for extracting phycocolloids and the **high cost of pond-produced seaweeds** may not be profitable unless the harvested seaweeds are processed for multiple products e.g. biofuel, bio-stimulants, food, cosmetics and pharmaceuticals
 - Seaweed growers are **receiving minimal prices for their harvested seaweeds** due to their sale to cottage-level industries for indigenous phycocolloid extraction.
 - Export of dry seaweeds has been banned for several decades. If the ban is lifted and export of dry seaweeds is permitted, farmers will **realize higher prices for their seaweeds**.

Environmental and ecological impacts

- **Negative:**
 - Seaweed farmers **cut down mangroves** to use as stakes for their ropes. This negatively affects farming since it **reduces the water quality and mangrove biodiversity** due to depletion.
 - Farmers may also sometimes **remove eelgrass from their farming areas**. This is also discouraged, as it **adversely affects water quality**.
- **Positive:**
 - Seaweed farming helps to **preserve coral reefs** by increasing diversity where the algae and seaweed have been introduced, and it also provides an **added niche for local species of fish and invertebrates**.
 - Farming may be beneficial by **increasing the production of herbivorous fishes and shellfish in the area**.
 - Seaweed culture can also be used to **capture, absorb, and eventually incorporate excessive nutrients into living tissue**. "Nutrient bioextraction" is the preferred term for bioremediation involving cultured plants and animals.



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Context

- To understand the macroeconomic context of India's first post-COVID-19 budget, it is important to understand both the evolution of India's economy in the pre-COVID-19 years and the nature of the economic recovery from COVID-19.

Evolution of Indian Economy in last decade:

- Gross domestic product (GDP) growth averaged almost 7% **between 2014 and 2020**. Yet, that average masks significant **temporal and sectoral heterogeneity**.
 - Growth averaged almost 8% **between 2014 and 2017** – helped by positive terms of trade shock from lower oil prices – before **slowing discernibly for three years to 4% in the pre-COVID-19 year**.
- The **drivers of growth** in this cycle were very different from the previous cycle. **Strong export growth** (~16% a year) had induced double-digit investment growth (~11% a year) between 2002 and 2011.
 - In contrast, India's growth post 2013 was driven largely by **consumption both private and public consumption**.
 - Private consumption averaged 7% in the six years pre-COVID-19, but much of this was **financed by households taking on debt and running down savings**.
 - Consequently, **individual debt jumped from 19% to 28% of GDP** between 2015 and 2019, though still not high by emerging market standards.

Pre-COVID-19

- With the economy in the midst of a **three-year slowdown**, risks were mounting that households would begin to perceive the **slowdown as being more permanent** and accordingly **adjust consumption downwards**.
- Indeed, in the pre-COVID-19 year, these **fears combined** with an increasingly impaired financial sector to pull private consumption growth down to 5.3% – the lowest since the global financial crisis (GFC).

Recovering from COVID

- India's near-term recovery from COVID-19 is proceeding slightly faster than the originally-envisioned double digit contraction, aided by two phenomena.
- India was able to **break the link between mobility and the virus** earlier than most countries. Even as mobility and activity began to recover post the lockdown, COVID-19 cases peaked in September 2020 and began falling sharply thereafter.
- Second, after being very restrained in the first six months of the pandemic, **central government spending has picked up** meaningfully since October, which will translate into **more central fiscal support in the second half** of the fiscal year.

Contextualising the Recovery

- Incomplete Recovery:** Despite expected double-digit growth in FY22, the economic recovery is expected to be incomplete. By the first quarter of 2022 the level of **output would still be more than 6% below the level forecasted pre-pandemic**.
- Labor Market:** Alongside a faster-than-expected rebound exists **evidence of discernible labour market scarring**. Demand for Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA) was about **45% higher than a year ago**. This suggests a **paucity of opportunities in the labour market**. These dynamics are also reflected in the **Centre for Monitoring Indian Economy labour market surveys**, which reveal that the unemployment rate had risen from about 7.5% pre-COVID-19 to almost 12% in February 2021.

Bifurcated Recovery

- This is likely to result in a **bifurcated recovery**. Households at the **top of the pyramid** are likely to have seen their incomes protected, and **savings rates** forced up during the lockdown, increasing “fuel in the tank” to **drive future consumption**.
- Meanwhile, **households at the bottom** are likely to have **witnessed permanent hits to jobs and incomes**, which will hurt their consumption. These cleavages are already visible.
- **Passenger vehicle registrations** (proxying upper-end consumption) grew 8% between October and January while those for two-wheelers contracted 10%.

The Budget's Balancing Act:

The central challenge of the budget was therefore to ensure that:

- **Fiscal policy remains expansive**, and does not impart any large, contractionary impulse in 2021–22 that could choke off an incipient recovery; while
- The **headline deficit consolidates** in the coming years to preserve fiscal sustainability, since the total public sector's borrowing requirements will have widened to above **15% of GDP in FY21** and consolidated **public debt will increase to almost 90% of GDP**.

Key Points for Success of Budget and Economy

- **Aggressive Asset Sales But Conservative Tax Targets:**
 - Whether authorities can execute the budgeted expenditure, however, will depend crucially on whether **revenue estimates materialise**.
 - Key to the fructification of budgeted revenues in FY22 will be whether authorities can pull off the **sharp increase in budget asset sales to 0.8% of GDP in FY22 from 0.2% of GDP in FY21**.
- **Debt Sustainability:**
 - While the budget has admirably attempted to **consolidate without generating a large, contractionary impulse** in FY22, it has also laid out a more relaxed fiscal path than was expected.
 - The centre's fiscal deficit is pegged to narrow to **4.5% of GDP by FY26**, suggesting about a **0.5% a year consolidation for every year after FY22**.
 - **State deficits** are pegged to narrow back to 3% by FY24.
 - The **trajectory of debt** is likely to be more important than its level in the post-COVID-19 years as a barometer of fiscal sustainability. Therefore, a prerequisite of any medium-term fiscal framework must be to ensure that **debt/GDP first stabilises at these levels and then gradually begins to come down**.
 - The evolution of debt-to-GDP essentially depends on three variables: the **primary deficit**, **nominal GDP growth**, and the **cost of serving the debt**. The latter moves much more sluggishly because the average maturity of India's debt stock has progressively increased.
 - The evolution of the debt therefore comes down to the primary deficit (pd) and (r-g) – the difference between cost of servicing the debt (r) and nominal GDP growth (g).
- **Counter-cyclical Movement:**
 - As fiscal policy is being appropriately counter-cyclical at the moment, it must be equally nimble in the other direction.
 - When the recovery gets more entrenched, **policy support should be withdrawn with equal speed and alacrity**.
 - The more relaxed fiscal glide path should be treated as a ceiling, with the **actual path tied intimately to the pace of the recovery**.
- **Importance of Tax Reforms:**
 - The need to consolidate the fiscal deficit without hurting growth in the coming years also brings into sharp focus the importance of tax reforms in boosting revenues, so that **deficit consolidation is not tantamount to a commensurate reduction** in which could hurt medium-term growth.

- Tax reforms that simplify tax adherence, **improve compliance and bolster efficiency** will have a crucial role to play in the years to come.
- Despite the size of the economy tripling in nominal terms over the last decade which should have brought **more people into the tax net** and generated more revenues given the progressivity of direct taxes gross taxes as a share of GDP, which had **increased from 10% of GDP to 12% of GDP** in the high-growth years before the GFC.
- Fiscal consolidation in a post-COVID-19 world will necessarily entail a **sustained negative fiscal impulse** that could hurt **medium-term growth** and thereby, paradoxically, **imperil fiscal sustainability**.
- **The Importance of Execution:**
 - The budget's impact on shaping the macroeconomic narrative will depend on the **speed and efficacy of implementation** on both sides of the ledger: **simultaneously building and selling public assets**.
 - The **budgeted asset sales are not executed**, **pressure could increase** on cutting expenditure, making the **fiscal impulse more contractionary** and **creating headwinds for the recovery**.
 - It will be important to **front-load disinvestment and strategic sales** to take advantage of buoyant equity markets before global central banks become more cautious.
 - It will be equally important to **identify shovel-ready projects to deliver the promised public investment** in time, while the private sector is still healing.

Conclusion

- The budget must be commended for embarking on several paradigm shifts and attempting to balance fiscal consolidation with support for the recovery. But its success, and in turn the sustainability of India's recovery, will now come down squarely to policy execution and coordination.

INDIAN INVESTMENTS AND BITS

GS-III ECONOMY

Context

- Sri Lanka's decision to **renege on a 2019 agreement with India and Japan** that aimed to jointly develop the strategic East Container Terminal (ECT) at the Colombo port comes as a shock to New Delhi.
- While international relations experts are busy assessing the diplomatic fallout of this problematic decision for India-Sri Lanka ties, the issue also needs to be looked at through the **prism of the India-Sri Lanka bilateral investment treaty (BIT)**, which forms the bedrock of international law governing foreign investment between the two countries.

Bilateral Investment Treaty:

- A bilateral investment treaty (BIT) is an agreement establishing the terms and conditions for private investment by nationals and companies of one state in another state. This type of investment is called foreign direct investment (FDI). BITs are established through trade pacts.
- The distinctive feature of many BITs is that they allow for an alternative dispute resolution mechanism, whereby an investor whose rights under the BIT have been violated could have recourse to international arbitration.

Model Bilateral Investment Treaty (BIT) 2016

- The government had brought a new Model Bilateral Investment Treaty (BIT) in 2016 and it became **effective from April 2017 onwards**, replacing the earlier framework.

Need of new Model BIT

- Main reason for bringing the Model BIT was the **constant suing of the country by foreign firms**. India was one of the most sued countries during 2015 and 2016.

- The government thus has **modified the existing 1993 BIT framework** and brought out the 2016 Model BIT.
- The move is important as it will **help the country to make its treaty more specific in international arbitrations**.
- The textual consistency of a countries' BIT determines its success in BIT negotiations and disputes.

Features of the new Model BIT

- The Model Treaty brings several provisions either new or modifications of the existing one. Important features are mentioned below.

1. Enterprise based definition of investment instead of asset based definition

- The objective of adopting an enterprise-based approach is to **narrow the scope of protected investments** and **reduce the potential liability of the state** under Investor-state dispute settlement (ISDS) claims.
- Asset based definition considers every kind of asset – both **movable and immovable** as investment and gives protection under treaties, though their contribution to national economic development is meagre.

2. Exclusion of MFN treatment

- In recent years, complaining foreign investors have sued India arguing that they have to get the same beneficial treatment given to companies from other countries. This led to exclusion of MFN treatment.

3. Full Protection and Security (FPS)

- In the context of the Model, FPS means obligations only relating to **physical security** of investors and to **investments**.

4. State government as stakeholders

- Actions of the state Governments are included under the Model BIT.

5. Fair and equitable treatment (FET)

- The Model BIT links Fair and Equitable Treatment to international laws. This is aimed to **counter a broad interpretation and risk misuse**.
- Here, customary international law, which is built in state practice, gives a minimum standard of protection to investors.

6. Non-Discriminatory treatment

- Investors can avail non-discriminatory just compensation in circumstances like **armed conflict, natural disasters and in the state of national emergency**.

7. Corporate Social Responsibility

- The Model BIT mandates foreign investors to voluntarily adopt internationally recognized standards of corporate social responsibility.

Issue related to Model BIT

- It heavily **narrows down the definition of "investment"** needed to qualify for BIT protection from an asset-based to an enterprise-based one.
 - The definition contains **vague criteria** such as the requirement of enterprises to **satisfy 'certain duration' of existence** without specifying how much, or, investments having **'significance for development of the party in whose territory the investment is made'** without specifying what amounts to 'significant' contribution.
 - These render invoking BIT protection an **arduous task for foreign investors**, as well as **leave room for uneven interpretation by judicial bodies**.
- It contains a clause mandating **exhaustion of domestic remedy prior to initiating international arbitration proceedings**.
 - According to the **'Ease of Doing Business 2020' report**, India currently ranks 163 out of 190 countries in ease of enforcing contracts, and it takes 1,445 days and 31 per cent of the claim value for dispute resolution.
- The Model BIT has done away with the **'Fair and Equitable Treatment' clause** and has included a detailed **'Treatment of Investments' clause** with a broadly-worded undertaking that neither party shall subject investments to measures that are manifestly abusive, against norms of customary international law and to un-remedied and egregious violations of due process.

India-Sri Lanka BIT:

- In 1997, India and **Sri Lanka signed a BIT** to promote and protect foreign investment in each other's territories.
- The defining characteristic of this BIT is that it **empowers individual foreign investors to directly sue the host state** before an international tribunal if the investor believes that the host state has breached its treaty obligations. This is known as **investor-state dispute settlement (ISDS)**.
- An important protection provided for foreign investment in the India-Sri Lanka BIT is the **fair and equitable treatment (FET) provision given in Article 3(2)**.
- This Article provides that investments and returns of investors of each country shall, at all times, be accorded FET in the other country's territory.

Conclusion

- India needs to **adopt a balanced approach towards BITs** with an effective ISDS provision. This will facilitate Indian investors in defending their investment under international law should a country, like Sri Lanka, renege on an agreement.

ROLE OF WTO IN REDUCING THE ECONOMIC SHOCK

GS-III ECONOMY

Context

- Commentators and academics have regularly drawn attention to the importance of the World Trade Organisation (WTO) in regulating trade and reducing barriers. However, the role that the institution has played and continues to play in reducing the economic shock of the COVID-19 pandemic, and thereby mitigating its adverse impacts, merits more attention.

COVID and Trade

- The COVID-19 pandemic dealt a **paradoxical blow** to the global trade regime, by **disrupting supply chains** and simultaneously generating **greater demand for essential products**.
- In response, countries have **restricted the exports** of commodities including medicines, pharmaceutical products, diagnostics, therapeutics, and food products, to address critical shortages at the national level.
- By 23 April 2020, 80 countries and separate customs territories had introduced **export bans or restrictions**, and more countries were following suit.
- Export restrictions were primarily on personal **protective gear, pharmaceuticals, foodstuff, medical devices, and COVID-19 test kits**.

Three Pronged Approach

The WTO has helped in absorbing this blow in a three-pronged manner:

- By helping members coordinate their trade policies;
- By ensuring transparency with regard to pandemic-related measures; and lastly,
- By monitoring members' trade responses to the pandemic.

Restrictions under WTO Law:

While restrictions are generally not permitted under WTO law, countries may implement them in certain situations.

- **Article XI: 2(a) of the General Agreement on Tariffs and Trade 1994 (GATT)**, which allows members to temporarily apply export restrictions "to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party,".
- **Article XX(b) (General Exceptions) of the GATT:** to "protect human, animal or plant life or health." Some members also resorted to Article XXI (Security Exceptions) of the GATT.

Role of WTO

- The World Health Organisation (WHO) too was quick to point out that **shortage of personal protective equipment was endangering health workers** worldwide.
- WTO members highlighted the importance of keeping such measures “**temporary, targeted, proportional and transparent**” and of keeping **supply chains of essential goods open**.
- In its report, the WTO too stressed on the need for **international cooperation to overcome the challenges of the pandemic**.
- Many WTO members then submitted their **proposals and statements** to the WTO reiterating their commitment to ensuring the free flow of trade in essential goods, agriculture and food products.
- Members, including the large exporters of medical goods (India, US, and Germany) subsequently **lifted a number of export sanctions** to ensure the free flow of essential goods.
- The meetings at the WTO have helped members **come together and discuss their trade responses to the pandemic**, and in turn coordinate their policies to provide secure and predictable access to essential goods.
- Similarly, the WTO also has been serving as a **forum for coordinating policies concerning intellectual property rights (IPRs)** to enable better access to vaccines, and countries have refrained from unilaterally suspending IP rights in their respective jurisdictions in the meantime.
- Another important function performed by the WTO during the crisis has been that of **maintaining transparency**. Countries who are members of the WTO are required to immediately **notify any quantitative restriction (QRs)** like export restrictions implemented by them.
- WTO compiled a list of COVID-19 related trade measures concerning **goods, services, and IPRs** that were implemented by countries, and uploaded it to its website for stakeholders to access.
- Lastly, WTO members are able to collectively **monitor the policy responses of countries** through the **Trade Policy Review (TPR) Mechanism** of the WTO.

Trade Policy Review:

- This mechanism is an instrument “**affording opportunities for a process of collective evaluation of the trade policies and practices of individual members.**”
- Its objective “is to contribute to **improved adherence by all members to rules, disciplines and commitments made under the Multilateral Trade Agreement**”.
- The Trade Policy Review mechanism helps collectively **monitor members’ policies and ensure that the ongoing pandemic is not used as a façade** to implement protectionist or trade restrictive measures which would otherwise run afoul of countries’ trade obligations.

Conclusion

- The above examples thus show that the WTO has served as a ‘**constructed focal point**’ during the pandemic by helping countries **coordinate their policy responses and reducing the transaction cost** of such coordination, maintained transparency, and enabled countries to collectively monitor policy responses.
- While countries can also **coordinate their trade policies bilaterally** or within smaller groupings such as the G20 or through **Free Trade Agreement forums**, the large membership of the WTO provides a **platform for 164 countries to come together and coordinate their trade policies and discuss their respective responses**.
- It is, therefore, evident that despite the many challenges faced by the WTO, including the absence of a convincing narrative, the **organisation has proven to be resilient** – tackling unprecedented global challenges even when it faces internal turmoil – and necessary.

About World Trade Organization:

- It is an intergovernmental organization that **regulates and facilitates international trade** between nations.
- It officially commenced operations on **1 January 1995**, pursuant to the **1994 Marrakesh Agreement, replacing the General Agreement on Tariffs and Trade (GATT)**, which was established in 1948.
- The WTO is the **world's largest international economic organization**, with 164 member states representing over **96% of global trade and global GDP**.
- The WTO also administers **independent dispute resolution** for enforcing participants' adherence to trade agreements and resolving trade-related disputes.
- **Headquarter:** Geneva, Switzerland
- **Top decision making body:** Ministerial Conference
- **Day-to-day functions:** General Council

MEGA TEXTILE PARKS

GS-III ECONOMY

Context

- The government unveiled a scheme for **setting up mega textile parks** in the country, as part of the Centre's efforts to position India as a **fully integrated, globally competitive manufacturing and exporting hub for the sector**.

Details

- The mega textile parks will have **integrated facilities and quick turnaround time** for minimizing transportation losses, eyeing big-ticket investments in the sector.
- The textile ministry had recently said a scheme and a **Mega Integrated Textile Region and Apparel (MITRA) Park**, in over **1,000 acres of land** with state-of-the-art infrastructure, common utilities and Research and Development (R&D) lab, are under consideration.
- So far, **59 textile parks** have been sanctioned under the scheme for integrated textile parks, out of which 22 have been completed.

Production-Linked Incentive (PLI) Scheme

- The **production-linked incentive (PLI) scheme**, announced earlier for 10 key sectors including textile and automobiles, would help India become self-reliant, boost manufacturing and enhance exports.
- The government had approved the PLI scheme for 10 sectors, taking the total outlay for such incentives to nearly Rs 2 lakh crore over a five-year period.

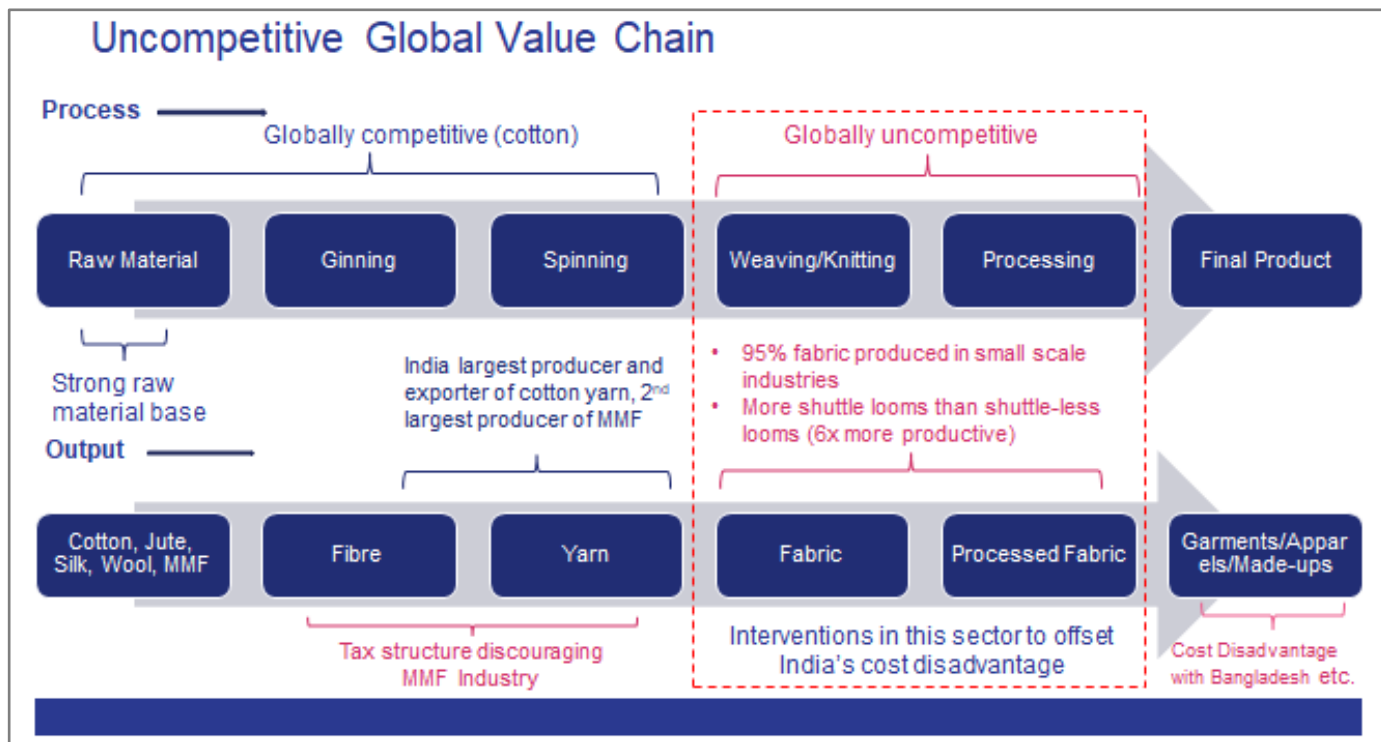
Status of Textile Sector in India

- The textile and apparel industry is one of the **earliest industries to have developed** in India.
- Its inherent and unique strength is its incomparable employment potential owing to the **presence of the entire value chain** from fibre to apparel manufacturing within the country.
- It is the **biggest employer after agriculture** and provides **direct employment to 4.5 crore people** and another **6 crores in allied sectors**.
- India is the **second-largest manufacturer of textiles and clothing** in the world.
- India is also the **second-largest exporter of textiles** and apparel with a share of **5% of global trade**.
- **Exports** of textile and clothing products, including handicrafts, from India have slightly increased to **US\$ 40.4 billion** during the year 2018-19.
- India has a **very strong raw material base** both in natural and manmade fibres (MMFs).
- India has emerged as the **largest producer of cotton** in the world with a production of 370 lakh bales in 2017-18 and the **second-largest exporter of cotton**.

- However, **high contamination level and poor quality of fibre**, both in fineness and length, are major concerns that need focused attention.

Overview of Textile Value Chain

- While India has the advantage of the entire value chain in the industry, currently the value chain is uncompetitive. The figure below indicates the current status of textile value chain (GVC) in India:



Concerns

- **Increasing competition:**
 - **China and Bangladesh** are the largest importers of cotton yarn from India, who in turn creates **value addition to the yarn and then exports the same** at a lower cost compared to India.
 - India needs to **upgrade its position from a supplier of cotton yarn to a producer of value-added fabrics and garments**.
 - As the **world export value of cotton yarn has decreased** over the years, it is an indication that the cotton textile trade is shifting towards **different types of fibre such as MMF**.
- **Poor Cotton Fabric Export:**
 - While India **leads in cotton yarn exports**, it has been a very marginal player when it comes to cotton fabric in world exports.
 - China has a **substantial share of 51% in cotton fabrics** when compared to India's 5%-6%; the situation is almost the same in case of MMF fabrics.
 - This comparison suggests that **India is not able to scale up the value chain** significantly enough to meet the global demand despite being the largest producer and exporter of cotton yarn.

Amended Technology Up-gradation Fund Scheme (ATUFS): The amended Scheme was launched in January 2016 for technology upgradation of textiles industry with one time capital subsidy for eligible machinery.

SAMARTH: The Scheme for Capacity Building in Textile Sector (SCBTS) for the entire value chain of textile sector, **excluding Spinning and Weaving in the organized sector**, for a period of three years from 2017-18 to 2019-20 to provide **skilling and skill-upgradation** in the traditional sectors. 10.00 lakh persons will be trained under the scheme by March, 2020.

PowerTex: A comprehensive scheme for development of Powerloom sector has been launched with components like **Insitu-upgradation of plain Power Looms, Group Work Shed Scheme, Yarn Bank Scheme, Common Facility Centre (CFC), Solar Energy Scheme, Pradhan Mantri Credit Scheme**, etc.

National Handloom Development Programme and National Handicrafts Development Programme: These programmes aim at holistic **development of handloom and handicrafts clusters** through integrated approach. The strategic interventions under the programme include **financial assistance for new upgraded looms and accessories, design innovation, product and infrastructure development, skill upgradation**, training, setting up of Mega clusters for increasing manufacturing and exports, easy access to working capital through customized Mudra loans for weavers and artisans and direct marketing support to weavers and artisans.

India Handloom Brand: Scheme was launched by the Government in 2015 to enhance the quality in **weaving, designing and defect free handloom products** for safeguarding the interest of the buyers in the domestic and international markets. It will **promote production of niche handloom products** with high quality, authentic traditional designs with zero defects and zero effect on the environment.

• **Dominance of Unorganised Sector:**

- Approximately **95% of the weaving sector** in India is unorganized in nature.
- The **decentralized power loom and hosiery sector contributes 85%** of total fabric production.
- The processing segment is also dominated by a **large number of independent, small-scale enterprises**.
- Since, the weaving/processing sector in India is dominated by small-scale enterprises, it has challenges such as **inadequate know-how, low focus on research, innovation in new product development and low technology upgradation**.
- **Low productivity and automation levels** also remain one of the biggest woes for the weaving industry.

• **Poor Technology:**

- India has one of the largest installed production bases in the world in the weaving sector but at the same time it uses **old technology with low productivity and quality levels**.
- In terms of technology adoption in the weaving sector, India has **only 2% share in global shuttleless looms** (i.e. modern looms) installed capacity.
- The **cost of production in India also goes up** due to poor technology levels and low scale of operations, as 95% of the weaving sector in India is unorganized and in small scale.

Recommendations

• **Technology Upgradation:**

- In order to make the textile industry competitive, industry needs to focus on **investing in technology upgradation and expand weaving capacity to scale-up operations**.
- To ensure rapid transformation of the weaving sector in India, under **Amended Technology Upgradation Funds Scheme (ATUFS)** of the Government of India, the weaving sector may be considered to **get capital subsidy at par with garmenting and technical textiles**.
- At present, the weaving sector is getting subsidy at **10% subject to a cap of 20 crore** under ATUFS, whereas for garmenting and technical textiles, subsidy is provided at **15% subject to a cap of 30 crore**.
- For creating a few global champions in the weaving sector in India, the Government of India may consider providing **some enhanced subsidy under ATUFS**, for select players, purely on **an outcome basis**.

- **Infrastructure Development:**

- Further, **state governments** should aggressively promote infrastructure and provide plug and play parks for the industry.
- Lands should be allotted in such parks for **long-term lease**.
- The supply of **uninterrupted quality power at fixed price** for a tenure of 15 years may also be considered in these parks.
- To ensure rapid scaling up of business, state governments should **provide all the approvals in place**, including the provision of CETPs/ZLD, as per need basis, in these parks.

Conclusion

- The weaving sector is the backbone of the textile industry. On the one hand, promoting the weaving industry gives impetus to the domestic spinning industry and on the other, it makes our garment' sector globally more competitive. With focused interventions in this sector, we might enhance its performance in terms of more investment, employment generation and export earnings.

DIGITAL SERVICES TAX

GS-III ECONOMY

Context

- United States Trade Representative (USTR) investigation report found India's Digital Services Tax (DST) to be discriminatory.
- The bone of contention is a 2% tax that India has charged since April 2020 on revenues from digital services, applicable only to non-resident companies.

Background

- India introduced a **6% equalisation levy in 2016**.
- When the **Base Erosion and Profit Shifting (BEPS) programme** by the OECD was launched at the behest of the G20 countries.
- Under the **15 action points**, action point one was to look at the tax challenges of the digital economy. By 2015, action point one still remained a work in progress.
- The main problem was to find a **new way of taxing digital companies** that are not adequately taxed because of how the rules are designed.
- So, the primary concern was that companies don't have a physical location in the markets where they operate. And use the intangibles, which are hard to value.
- In 2016, the **Akhilesh Ranjan Committee Report** had suggested that in order to **create a level-playing field between online businesses and brick-and-mortar businesses, digital businesses** which do not have a physical presence in India but are able to enjoy a sustainable economic presence should be paying a certain amount of tax.
- India became the first country to implement the equalisation levy, on advertising services at 6%. The thinking was that when a solution is reached at the global level, this would sort of be phased out.
- In 2019, in a **sharp departure from its original thinking**, OECD put out a policy note saying that there's an elephant in the room, which is the **redistribution of taxing rights**, which this action point seems to bring up again and again, and unless we address this, finding a consensus will be difficult.

USA's stand

- The U.S. in the G20 meeting said even if OECD does find a consensus, there should be an option of **applying some safe harbour basis**, which is to say that the company can choose whether this consensus applies.
- This startled a lot of countries. They were apprehensive that tomorrow if a **safe harbour basis were to be applied**, would it serve the purpose.

Current scenario

- In a surprise move, the new equalisation levy, which expands the scope significantly, even to e-commerce, was introduced in 2020.
- And after that, the U.S. has taken a stance that it would interrogate such measures as a hindrance to its commerce and trade.
- And irrespective of the position that the U.S. takes on this, countries such as France, India, and 10 countries against which the investigations have been initiated, have taken a position to say that this might be perhaps an interim solution.

India's stand

- India has always maintained that once there is a **global consensus**, it would **cease to keep the equalisation levy in force**.
- India has been engaged in the global discussions at the OECD level. And OECD had promised to deliver a consensus-based solution by mid-2019.
- That did not happen owing to the pandemic, but because of the **growing needs of India to generate tax revenues**, this was a sudden move that took the entire digital community by surprise.
- Unlike the 2016 levy, this 2020 levy was **devoid of any sort of public consultation**. It was a major **surprise for the digital community**.

U.K. tax vs India's Equalisation levy

- One of the primary criticisms against India's equalisation levy is that it is a **tax on revenue as opposed to being a tax on profits**. The U.K. allows companies to **not pay any tax if their net operating margin is negative**.
- Indian user located in the U.K., receiving **services from a U.S. company**. The U.K. DST contemplates that only 50% of the revenues from such a transaction would be chargeable to the U.K. DST.
- Another major difference is that companies that sell their own inventories are **explicitly excluded from the scope of the U.K. DST**. Whereas, India's **equalisation levy covers everything** under the sun.
- The U.K. makes a slight departure in terms of details and it's slightly different from how India has implemented it. But the U.S. also looks at the U.K. taxes in some way as discriminatory.

The USTR report findings

- The investigation finds that India's equalisation levy **discriminates against U.S. companies in particular**. The reason for it is that the tax incident by design is on **non-resident companies**.
- Because the incident of the **equalisation levy is mostly on U.S. companies** (which is 72%), it's arbitrary as per the U.S.
- The USTR report also says that the **same services offered non-digitally are not taxed**, and this is leading to a **ring-fencing of the digital economy**.
- The **Akhilesh Ranjan Committee Report** said the idea behind the equalisation levy was to create a **level-playing field** between the ordinary businesses that have a **physical presence in a country and pay regular taxes** and the ones that are operating digitally that can avoid such taxes.
- The report also claims that **DST taxes companies with no permanent establishment** in India, contravening international tax principles. The **BEPS project** is based on the fact that **digital companies are able to enjoy sustained economic presence** in other jurisdictions without being physically present.
- The **international community is moving towards a scenario** where such transactions ought to be taxed. Therefore, to say that it's contrary to international tax principles would be overstepping a little.
- The report also claims that **DST taxes a company's revenue rather than its income**. This is inconsistent with international tax practice that income, not revenue, is the appropriate basis of corporate taxation. Over here also, since the issue of taxing digital companies is unique, a lot of scholars have argued that **taxing revenue for digital transactions as location-specific rent is more feasible than a digital presence**, because it would lead to lesser compliance costs.

Not discriminatory

- The **threshold** that India has laid down for the equalisation levy is actually much below what the EU envisages.
- The report also makes the mention of it violating the principles of international tax. If the companies that currently operate within that framework do not stand up to the measures or the principles of international tax, the **introduction of a tax to plug that gap should not be looked at as a perverse move.**

Possible retaliation

- This issue becomes very political in the sense that **Section 301 investigations** had themselves become obsolete before the Donald Trump administration came in.
- **Section 301 investigations** are unilateral in nature, because the USTR is essentially deciding whether a measure is violative of the U.S.'s rights.
- There is an inherent bias as to what the findings are going to be.
- The criticism against Section 301 investigations is that after the **WTO law and the dispute settlement mechanism came into picture** and the **scope of the General Agreement on Trade in Services** were expanded to include services as well, countries have been of the view that an international body should be looking at such disputes.
- The way Section 301 investigations are going to be used in the future is still something that remains to be seen.

Way forward

- The position that India has taken is to remain committed to the OECD process, there are **ways to tweak this design**, because it will be put out in June 2021. So, the **design could be worked out better** to take into consideration the interests of the developing countries.
- The **United Nations is taking some sort of leadership** on this to design its own proposal, which is an **automated DST** which is to say that within the **existing treaty framework today**, we introduce a withholding on payments that are made from markets to jurisdictions.
- Another option can be to **apply the DST and then allow countries to bilaterally negotiate** with their respective partner countries a process of crediting this tax.

FUEL PRICE

GS-III ECONOMY

Context

- Diesel and petrol prices have **hit record highs across the country**, with petrol touching Rs 89 per litre in Delhi, and diesel reaching a new high of Rs 86.30 per litre in Mumbai.
- The government reasons that **global crude oil prices have risen by more than 50 per cent** to over \$63.3 per barrel, **forcing oil retailers to increase pump prices.**
- Indian consumers are already **paying much higher than what they were paying**, even though **crude prices are yet to reach levels** of early last year.

Background:

- Historically, the price of petrol and diesel in India was **regulated**, i.e. the government was involved in the deciding the retail price.
- The government **deregulated the pricing of petrol in 2010 and diesel in 2014**. This allowed **oil marketing companies to determine the price** of these products, and revise them every fortnight.
- Starting June 16, 2017, prices for petrol and diesel are **revised on a daily basis**. This was done with the idea that daily revision will **reduce the volatility in retail prices**, and **protect the consumer against sharp fluctuations**.

Dependence on Import:

- India imports 84% of the petroleum products consumed in the country. This implies that any change in the global prices of crude oil has a significant impact on the domestic price of petroleum products. In 2000-01, net import of petroleum products constituted 75% of the total consumption in the country. This increased to 95% in 2016-17.

Why are consumers in India paying more for petrol and diesel?

- Retail petrol and diesel prices are in **theory decontrolled** – or linked to global crude oil prices. Which means that if crude prices fall, as has largely been the trend since February, **retails prices should come down too, and vice versa**.
- But this does not happen in practice, largely because **oil price decontrol is a one-way street in India**.
- When global prices go up, the **resultant increase is passed on to the consumer**, who has to cough up more for every litre of fuel consumed – but when the reverse happens and prices slide, the government, almost by default, **slaps fresh taxes and levies to ensure that it rakes in extra revenues**, even as the consumer, who should have **ideally benefited by way of lower pump prices**, is forced to either shell out what she's already paying, or spend even more for every litre of fuel.

Why are crude oil prices rising now?

- Prices collapsed in April 2020 after the pandemic spread around the world, and demand fell away. But as **economies have reduced travel restrictions and factory output has picked up**, global demand has improved, and prices have been recovering.
- Brent crude**, which was trading at about **\$40 per barrel** between June and October, **started rising in November**, and has gone past the **\$60 per barrel** mark as the global rollout of Covid-19 vaccines gathers pace.
- The **controlled production of crude** amid rising demand has been another key factor in boosting oil prices, with Saudi Arabia voluntarily cutting its daily output by 1 million barrels per day to 8.125 million barrels per day through February and March.

Fuel Price and Inflation:

- Given fuel is such a critical input for any economy, its **prices rising usually means an increase in prices for a host of other goods and services** – thus leading to greater inflation across the economy.
- However, the current Indian economy is in an unusual place due to **very low demand, which serves to ease pressure on inflation**. For example, the Reserve Bank of India argued in its May Monetary Policy Committee meeting that there was a “meltdown in demand” which was “likely to result in a significant easing of price pressures in core goods and services”.
- Low demand** working at cross purposes with rising fuel prices might mean the danger of inflation could be low.

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What is the impact of taxes on retail prices of auto fuels?

- The central government hiked the **central excise duty on petrol to Rs 32.98 per litre** during the course of last year from Rs 19.98 per litre at the beginning of 2020, and **increased the excise duty on diesel** to Rs 31.83 per litre from Rs 15.83 over the same period to boost revenues as economic activity fell due to the pandemic.
- A number of **states have also hiked sales tax on petrol and diesel** to shore up their revenues.

INVERTED-V GDP GROWTH RATE

GS-III ECONOMY

Context

- The presentation of the **Economic Survey for 2020-21**, the **Union Budget for 2021-22**, and the **first bi-monthly monetary policy review** by the Reserve Bank of India were released in recent.
- But this flood of information also hid something crucial — the **First Revised Estimates (FRE) of GDP growth in 2019-20**, which were released by the Ministry of Statistics and Programme Implementation (MoSPI) on January 29.

Background

- In the past, we have seen how **GDP revisions**, even though a routine exercise, can be of importance, especially when the **growth rate fluctuates significantly enough**.
- The latest revisions have **not only tweaked the GDP growth rates** for 2019-20 but also **recalibrated the GDP growth rates of two more years** — 2017-18 and 2018-19.
- India's **GDP likely grew by just 4% in 2019-20** as against 4.2%.
- The MoSPI press release also dialled down the **GDP growth rate for 2017-18 from 7% to 6.8%**. However, for 2018-19, the GDP growth rate has now been moved up from 6.1% to 6.5%.

1: The extent of data revisions

- According to the **First Advance Estimates for 2018-19** released on January 7, 2019, the GDP was to grow by 7.2%.
- Then **Second Advance Estimates** in February 2019 said the GDP would grow by 7%.
- The **Provisional Estimates** at the end of May 2019 pegged the GDP growth at 6.8%.
- Then the First Revised Estimates, released on January 31, 2020, revised the growth rate down to just 6.1%.
- Now the Second Revised Estimates for FY19 inform us that the **GDP grew by 6.5%**.
- To be sure, there are **at least two more revisions left** — the “third revised estimates” (another year down the road) and the “actuals” (two years hence).

2: The importance of India's GDP in 2019-20

- The combined result of an 8% GDP contraction in the current year (2020-21) followed up by a (projected) **10%-11% GDP growth in the next financial year (2021-22)** will be that, at the end of March 2022, the absolute level of India's GDP will be almost the same as it was in March 2020.
- But as things stand, not just in 2019-20 data but also in GDP levels of preceding years — it would be hard to be sure of what India's GDP was at the end of March 2020.
- The year 2019-20 is also significant for another reason. Since the **Covid disruption hit the Indian economy only in the last week of March 2020**, the overall GDP growth of 2019-20 provides a good measure of how weak/strong the Indian economy was going into the pandemic.

3: The “inverted-V” shape of India's GDP growth rate during the past decade

- India's GDP growth rate followed an “inverted-V” shape before Covid brought the economy down to a complete halt.

- The chart below gives a glimpse of the supply side of the economy. It maps the growth rate of the Gross Value Added (GVA) in India's manufacturing sector.
- The manufacturing sector is possibly the most important sector for India as it has the capacity to absorb the maximum number of unemployed people in the country.

'Inverted-V': India's GDP growth rate before Covid

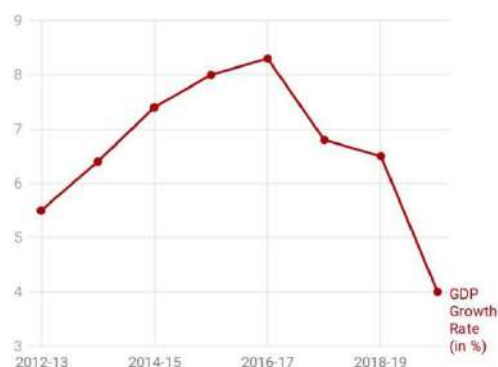


Chart: Udit Misra • Source: MoSPI, Union Budget • Created with Datawrapper

- There is much talk about India registering a “V-shaped” recovery in the next financial year (2021-22). But, what the data above suggests is a more **broad-based loss of growth momentum in the economy before Covid**.
- The likely gains in FY22 will only bring the economy at par with where it was at the end of FY20.
- In other words, the actual recovery – whatever be its shape – **will start once India starts growing beyond the FY20 levels of GDP**.

Manufacturing GVA growth rate also an inverted-V

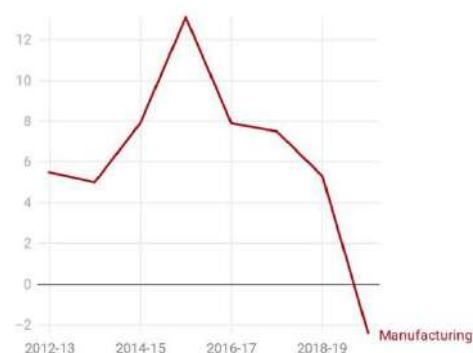





Chart: Udit Misra • Source: MoSPI • Created with Datawrapper



Vol-II

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Features

- Comprehensive coverage of International Relations, Internal Security, Art and Culture, Social Issues and Economics from all relevant sources such as The Hindu, Indian Express, PIB, AIR, RSTV, Livemint etc.
- News and events have been segregated and clubbed category-wise for better understanding and revision.
- Important points and keywords are highlighted for quick revision, students can easily revise whole current affairs in a day.
- Brief background has been provided for better connectivity with the current events.

- Maps of important regions have been covered to tackle mapping related questions in prelims.
- Extra prelims related information is provided in boxes.
- Important terms in economics are explained well so that student don't face any difficulty in understanding the topic.
- Stay tuned for one stop solution for all the current affairs for upcoming Prelims 2021.

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DARK MATTER

GS-III SCIENCE & TECHNOLOGY

Context

- Scientists from the University of Sussex have found a new way to know more about dark matter.
- They have narrowed down the range of masses within which particles that could make up dark matter may lie in.
- The range they have established is — 10^{-3} electron-volts to 10^7 electron-volts. This is far smaller than the earlier known range of 10^{-24} electron-volt to 10^{19} Giga electron-volt.

What is Dark Matter?

- Dark matter is a mysterious substance that composes about 27% of the makeup of the universe.
- It isn't ordinary atoms – the building blocks of our own bodies and all we see around us.
- ✓ Atoms make up only somewhere around 5% of the universe, according to a cosmological model called the Lambda Cold Dark Matter Model
- Again, Dark matter isn't the same thing as dark energy, which makes up some 68% of the universe.
- Dark matter is invisible; it doesn't emit, reflect or absorb light or any type of electromagnetic radiation such as X-rays or radio waves.
- Thus, dark matter is undetectable directly. This is because all our observations of the universe, involve capturing electromagnetic radiation in our telescopes. The exception is detection of gravitational waves.



The two largest pieces of the Universe, dark matter and dark energy, are the two that we know the least about, yet nothing less than the ultimate fate of the Universe will be determined by them.

DARK ENERGY

TENDS TO DRIVE THE UNIVERSE APART.

DARK MATTER

TENDS TO DRIVE THE UNIVERSE TOGETHER.



EVERYTHING ELSE,
INCLUDING ALL STARS,
PLANETS, AND US

Results from viewing Type Ia supernovas have shown astronomers that the expansion of the universe is accelerating and dark energy is the reason for the acceleration.

Ever since the phenomenal success of Isaac Newton in explaining the motion of the planets with his theory of gravity and laws of motion in 1687, unseen matter has been invoked to explain puzzling observations of cosmic bodies.

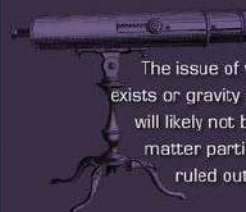
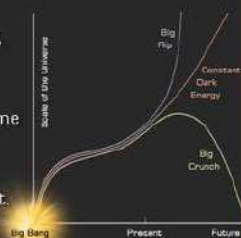
The two basic models for dark energy are that it is either energy associated with empty space (vacuum energy) and is constant throughout space and time, or it is an energy field that varies over space and time.

Evidence suggest that the mass of dark matter in galaxies, clusters of galaxies, and the universe as a whole is about 5 or 6 times greater than the mass of ordinary baryonic matter such as protons and neutrons.

If vacuum energy is correct in about 100 billion years, no galaxy outside our own will be visible.

Dark matter is thought to be mostly composed of exotic particles formed when the universe was a fraction of a second old.

If it is an energy field, depending on the nature, expansion could stop and become a collapse, or the acceleration could increase without limit.



The issue of whether dark matter exists or gravity needs to be modified will likely not be resolved until dark matter particles are detected, or ruled out by lack of detection.

Some physicists propose actually making dark matter.



If dark energy does not exist, cosmic acceleration could be a sign that the theory of gravity needs to be modified for extremely large distance scales.

Properties of Dark Matter

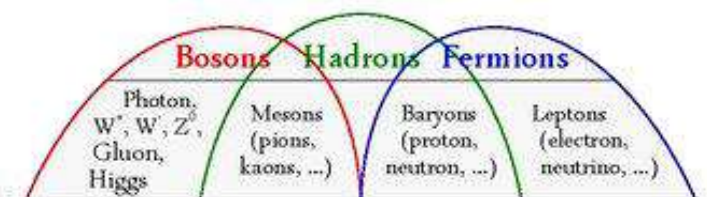
Optically Dark (Dissipationless)

- Dark matter does not shine. Thus, dark matter particles must **have very weak electromagnetic interactions**.
- An important consequence of this is that the dark matter cannot cool by radiating photons, and thus will not collapse to the center of galaxies as the baryons do, by radiating their energy away electromagnetically.
- In other words, the dark matter is very nearly dissipationless.

Baryons and mesons are both hadrons. Baryons are heavy subatomic particles that are made up of three quarks. Protons and neutrons, as well as other particles, are baryons. Mesons on the other hand are composite particles made of one quark and one antiquark.

A quark is a type of elementary particle and a fundamental constituent of matter. Quarks combine to form composite particles called hadrons. The most stable form of Hadrons are protons and neutrons, the components of atomic nuclei.

In particle physics, a hadron is a subatomic composite particle made of two or more quarks held together by the strong force in a similar way as molecules are held together by the electromagnetic force.



Collision less

- In addition to not interacting with “light” matter, the dark matter is collisionless as well.

Dark matter is not clouds of normal matter

- Normal matter particles are called baryons. If dark matter were composed of baryons it would be detectable through reflected light.

Dark matter is not antimatter

- Antimatter annihilates matter on contact, producing gamma rays. Astronomers do not detect them.

Dark matter is not black holes

- Black holes are gravity lenses that bend light. Astronomers do not see enough lensing events to account for the amount of dark matter that must exist.

Dark Matter interact with ordinary matter

- It exhibits measurable gravitational effects on large structures in the universe such as galaxies and galaxy clusters.
- Because of this, astronomers are able to make maps of the distribution of dark matter in the universe, even though they cannot see it directly.

Dark matter binds galaxies together

- Dark matter exerts ‘gravitational force’, meaning that it draws other matter towards it.
- And there’s so much dark matter that its gravitational force is enough to hold entire galaxies – like our own Milky Way – together.
- That’s why dark matter is often likened to a giant spider’s web, meshing galaxies in place.

Dark matter is cold in nature

What is Dark Matter made of?

- Decades out of the gate, scientists still don’t know what makes up the bulk of the universe’s matter. But they have some strong contenders.

Particle: Weakly interacting massive particles (WIMPs)

- Weakly Interacting Massive Particles, or WIMPs, represent one hypothesized class of particles to explain dark

matter.

- They are heavy, electromagnetically neutral subatomic particles.
- They neither absorb nor emit light and don't interact strongly with other particles.
- But when they encounter each other, they annihilate and make gamma rays.

Particle: Axion

- A hypothetical subatomic particle of low mass and energy that is postulated to exist because of certain properties of the strong force.

Particle: Sterile neutrino

- Sterile neutrinos (or inert neutrinos) are hypothetical particles (neutral leptons – neutrinos) that interact only via gravity and do not interact via any of the fundamental interactions of the Standard Model.
- The term sterile neutrino is used to distinguish them from the known active neutrinos in the Standard Model.

The Standard Model explains how the basic building blocks of matter interact, governed by four fundamental forces.



Particle: Strongly interacting massive particles (SIMPs)

- Strongly interacting massive particles (SIMPs) are hypothetical particles that interact strongly between themselves and weakly with ordinary matter.

How do we detect Dark Matter?

- Dark matter does interact with ordinary matter.
- But it exhibits measurable gravitational effects on large structures in the universe such as galaxies and galaxy clusters.
- Because of this, astronomers are able to make maps of the distribution of dark matter in the universe, even though they cannot see it directly.

MACHOS - Massive compact halo object

- A massive astrophysical compact halo object (MACHO) is any kind of astronomical body that might explain the apparent presence of dark matter in galaxy halos.
- A MACHO is a body that emits little or no radiation and drifts through interstellar space unassociated with any planetary system (and may or may not be composed of normal baryonic matter).
- Since MACHOs are not luminous, they are hard to detect.
- MACHO candidates include black holes or neutron stars as well as brown dwarfs and unassociated planets.
- White dwarfs and very faint red dwarfs have also been proposed as candidate MACHOs.

CATALYTIC DEWAXING

GS-III SCIENCE & TECHNOLOGY

Context

- Recently, Prime Minister Narendra Modi laid the foundation stone of key infrastructure projects in the oil and gas and road sector at Haldia of Purba Medinipur district. It included Catalytic De-waxing Units.

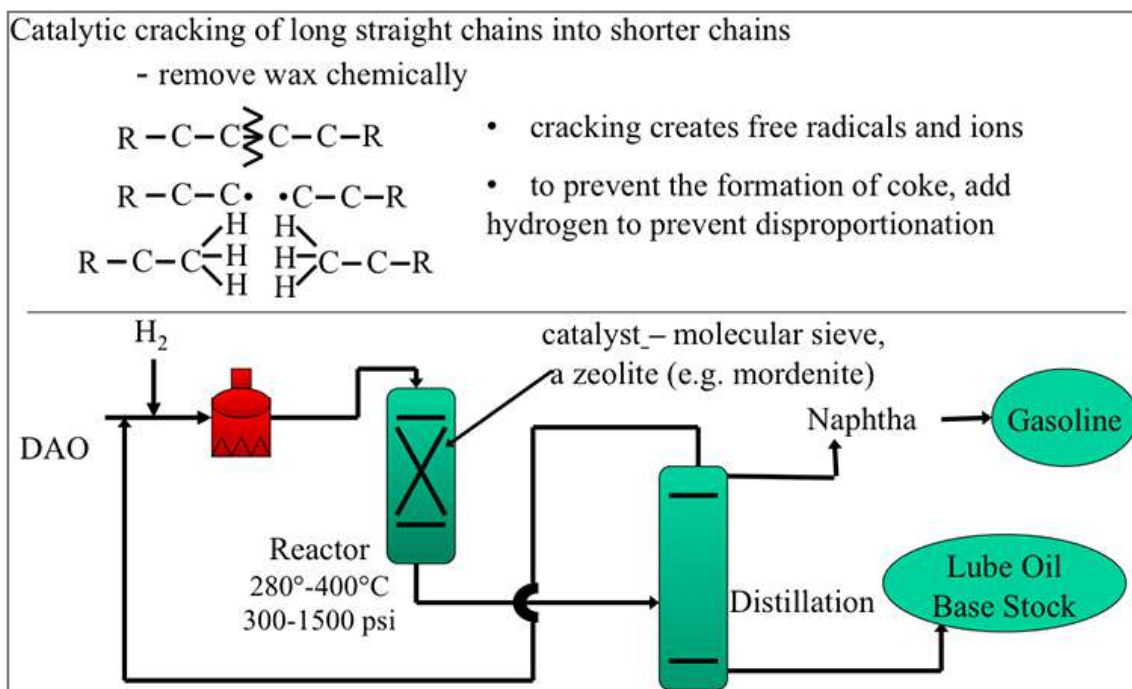
Catalytic De-waxing

- Catalytic de-waxing is a process that ensures that oil products like diesel are liquid at the specific temperature ranges in which they are to be used in order to meet the cold flow requirements essential for the commercial success.
- Although included under the separation processes, catalytic de-waxing is actually a low-severity conversion

process involving a selective catalytic cracking of n-paraffins.

The advantages of catalytic de-waxing include

- Production of lube base stock with lower pour point and in higher yield compared to the product obtained from solvent de-waxing. Low yield from solvent de-waxing results from the difficulty of separating the oil from the wax;
- lower capital investment;
- good product stability;
- Flexibility to produce both lube oil base stock and light distillates.



AUGMENTED AND VIRTUAL REALITY

GS-III SCIENCE & TECHNOLOGY

Context

- Forecast for Augmented and Virtual Reality Market Size & Share 2020 is expected to Reach USD 305 Billion by 2026.

Augmented Reality

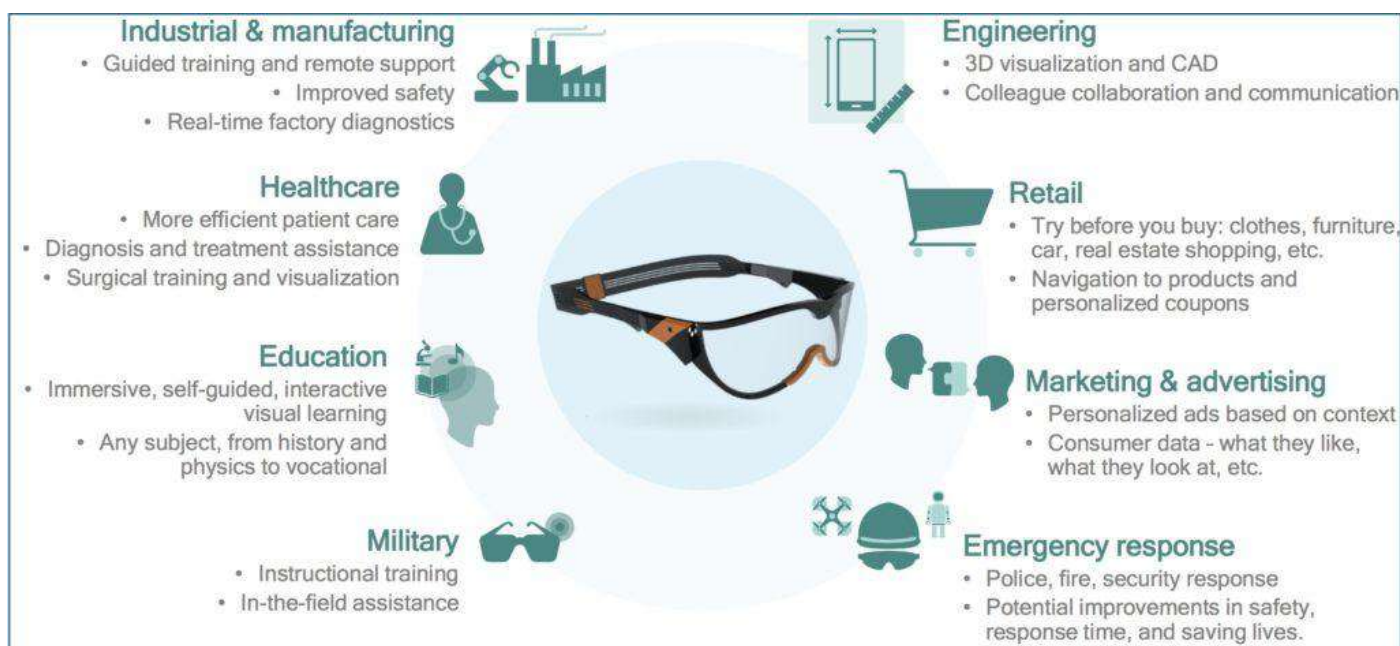
- Augmented reality (AR for short) is defined as "the real-time use of information in the form of text, graphics, audio, or other virtual enhancements integrated with real-world objects."
- It involves overlaying visual, auditory, or other sensory information onto the world in order to enhance one's experience.

How does augmented reality work?

- AR works by adding digital content onto a live camera feed, making that digital content look as if it is part of the physical world around you."



Applications of Augmented Reality



WHAT ARE THE ADVANTAGES OF AR?

Augmented reality (AR) offer a broad range of applications for enterprises and organisations.



Virtual reality

- Virtual reality (VR) refers to a computer-generated simulation in which a person can interact within an artificial three-dimensional environment using electronic devices, such as special goggles with a screen or gloves fitted with sensors.
- In this simulated artificial environment, the user is able to have a realistic-feeling experience.



Applications of Virtual Reality

Military uses

- Flight simulation
- Battlefield simulation
- Medic training (battlefield)
- Vehicle simulation
- Virtual boot camp

Healthcare

- Virtual Reality Diagnostics
- Human Simulation Software
- Virtual Robotic Surgery

Business

- Virtual tours of a business environment
- Training of new employees
- A 360 view of a product

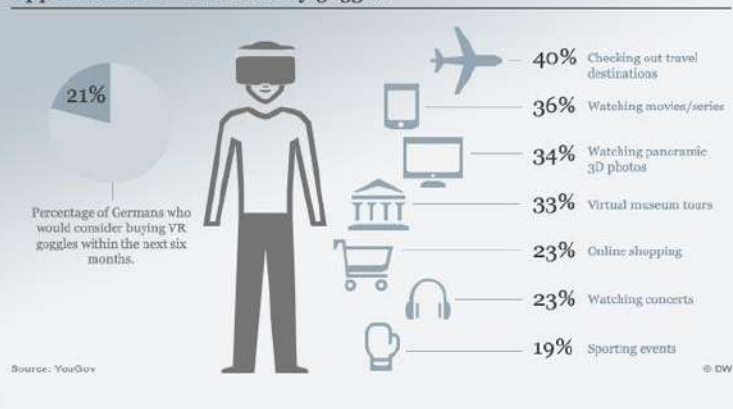
Sports

- Virtual reality performance
- Driving equipment design and innovation
- Bringing the sporting event closer to the audience

Engineering

- Car Design
- Rail construction
- Design cycle

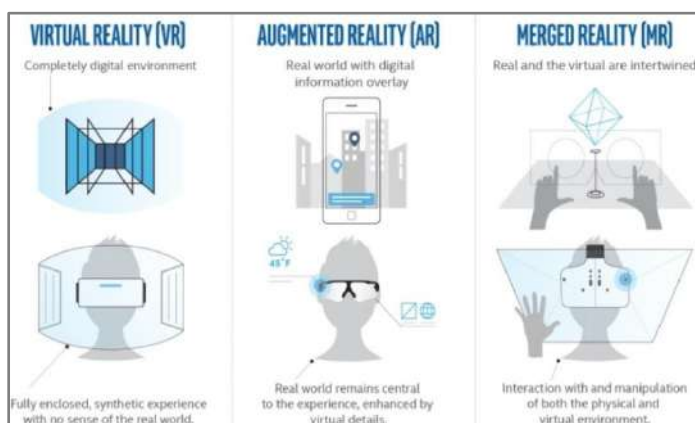
Applications for virtual reality goggles



Virtual Reality in Healthcare

► Healthcare is one of the biggest users of virtual reality for things like:

- Surgery simulation
- Phobia treatment
- Robotic surgery
- Skills training
- HumanSim System
- Fully interactive environment
- Training scenarios



WHAT ARE THE ADVANTAGES OF VR?

In research and development, design and review and education and training, virtual reality (VR) offer a broad range of applications for enterprises and organisations.



In engineering, for example, VR gives firms a means of demonstrating products and services, and visualising outcomes to clients.



Manufacturers can experience products before they commit to producing them.



Virtual prototyping enables them to fine-tune designs and troubleshoot earlier in the development process.



In training, VR is having a marked impact across a large number of sectors, including medical, aerospace, military and sport.



It offers opportunities for iterative learning and repeated exercises in highly realistic, challenging environments.



Commercial applications of VR include the property market, where estate agents can give potential buyers virtual tours of developments, even if they are still at the design or construction stage.



VR also provides highly accurate, walk-through visualisations of architectural projects and renovations.



Virtual reality can also become a useful recruitment tool, giving job applicants a vivid snapshot of what it is actually like to work in a specific role or environment.

AUGMENTED REALITY VS VIRTUAL REALITY	
Augmented reality (AR)	Virtual reality (VR)
AR is a combination of real and virtual worlds	VR creates entire virtual world
It lets people interact with both real and virtual worlds and distinguish between the two	It's hard to differentiate between what is real and what is not
Generally, it is experienced by using a smart-phone, laptop or tablet	This is experienced by wearing VR headsets (mounted or handheld-controlled)
The purpose of AR is to enhance experience by adding virtual components such as digital images and graphics as a new layer of interaction with the real world	The purpose of VR is to create its own reality that is completely computer-generated
Users remain in the real world	Users are transported into a new world
It adds relevant information to the existing real-world view	It incorporates heavy graphics to create a virtual environment
It is mostly used for demonstrations, interior designing and mapping	It is used in games, medicine, military, etc
Users maintain a sense of presence in the real world	Senses of users are under the control of the system
Users can move, rotate, scale and manipulate 3D objects in real world	Users can move, rotate and scale 3D objects in virtual world
Users are present at the location of experience	Users are not at the location of the experience
Users can physically move in the environment	Users cannot physically move in the environment

Challenges with augmented reality

Hardware issues

AR headsets have bulky hardware that may also be too expensive for the masses.

Limited content

Creating augmented reality content to promote businesses can be extremely complex and expensive.

Lack of regulations

Currently, there are no regulations to govern the usage of augmented reality.

Public skepticism

Consumers are unaware of the benefits and applications of augmented reality.

Physical safety risks

Augmented reality applications can be immensely distracting and may lead to physical injuries.

Challenges of VR

On VR companies side:

- Production of virtual reality gear is expensive;
- Competition on the market is virtually non-existent;
- No excessive demand from the consumers.

On consumer's side:

- Technology is unproven content-wise;
- The price is not justified by anything but cutting edge technology;
- Lack of varying budgetary options;

Other issues

- Lack of viable business models
- Health effects --- nausea, dry, irritable eyes, headache or eyestrain, blurred vision.

Addressing the issues

Regulatory framework- Regulators must step in to protect individuals.

Sovereignty of personal data: Concern over these methods of personal data collection should be addressed by introducing permanent solutions

Enticing foreign talent: In France, for example, the government-backed CNC Fund provides funding for AR and VR producers to co-produce content with local teams, offering grants that cover both development and production.

Strategically developing domestic talent: China is one example of an early mover. Areas such as Zhongguancun, Beijing, are subsidizing companies by up to \$1.45 million to further develop the VR industry and position the region as the next global technological hub.

Reduce production costs: “Virtual prototyping” allows to shorten the time and cost of iteration in product development while also improving the quality of the end product.

- ✓ Virtual prototyping is a method in the process of product development. It involves using computer-aided design (CAD), computer-automated design (CAutoD) and computer-aided engineering (CAE) software to validate a design before committing to making a physical prototype.

5G Speed: The spectrum currently available for cellular communication is simply not adequate for the demands VR and AR will place on networks. 5G will also have larger implications as the Internet of Things (IoT) expands.

Future of AR and VR in India

- Augmented Reality and Virtual Reality technologies have been witnessing an exponential growth in the Indian Market.
- The past few years has witnessed the emergence of 170 AR/VR start-ups in the country.
- Bengaluru takes the lead, attracting 27 per cent of these start-ups, followed by Delhi at 25 per cent-Market Pulse Report on AR and VR, by Growth Enabler.
- AR/VR technology has the potential to impact all possible industry verticals from education, healthcare, retail, travel, training, simulation, entertainment to gaming industry.
- According to reports, Augmented Reality and Virtual Reality market are expected to grow at an estimate of 6.5 billion by 2022.
- AR will see a prominent push in the next 3 to 5 years in India, and most schools will have dedicated tools.
- Higher education will see faster adoption for AR and VR tools, given that the technology is already present in such institutions.

Conclusion

- In its current state - VR technology is something like a Schrodinger Cat.
 - ✓ In the world's most famous thought experiment, physicist Erwin Schrödinger described how a cat in a box could be in an uncertain predicament.
- However, AR and VR have the potential to dramatically expand the ways our devices can help with everyday activities.
- Augmented reality (AR) and Virtual Reality (VR) can bridge the digital and physical worlds completely.

MALARIA MOSQUITO VECTOR

GS-III SCIENCE & TECHNOLOGY

Context

- Scientists have unveiled the detailed genome of the malaria mosquito vector, revealing thousands of new genes vital for the development of genetic control strategies of disease transmission.

Significance

- The discoveries include 29 formerly undetected genes that play crucial roles in resistance to chemical insecticides, a development that can help address the growing Asian and African An. stephensi populations with insecticide-

resistant mutations.

- The findings also offer clues suggesting that the molecular basis of insecticide resistance may differ between sexes, they said.
- This work will aid in basic studies of genome evolution and inform strategies aimed at eliminating one of the world's long-time disease scourges.
- Collectively, these results and resources underscore the significance of previously hidden genomic elements in the biology of malaria mosquitoes and will accelerate development of genetic control strategies of malaria transmission.
- The new genome assembly is a comprehensive and accurate map of genomic functional elements and will serve as a foundation for the new age of active genetics in *An. stephensi*.
- This reference genome and its excellent quality should help malaria biologists in India and the rest of the world, particularly in view of the national goal of malaria elimination in India by 2030.

Table of differences between the various types of parasites that cause malaria				
Plasmodium type	Type that causes malaria	Endemic area	Febrile seizures period	Involvement and severity
Falciparum	tropical malaria	In all endemic areas	Irregular Crisis	Very serious It can cause death if not treated quickly and effectively.
Vivax	tertian malaria	South America and Asia	Every 2 days	Grave, but with a delayed onset.
malariae	quartan malaria	South America and Asia	Every 3 days	Moderate, less frequently.
Ovale	tertian malaria	Africa	Every 2 days	Moderate, less frequently.
Knowlesi	It is mistaken with quartan malaria	Malaysia, Thailand and Cambodia	Every 24 hours	It can cause death if not treated quickly and effectively.

India and Malaria

- According to the WMR 2019, India represents 4% of the global malaria burden.
- Despite being the highest malaria burden country of the South-East Asia region, India showed a reduction in reported malaria cases of 49% and deaths of 50.5% compared with 2017.
- India has made remarkable progress during the recent years in reducing the malaria incidence.
- The total number of malaria cases reported in 2020, till October, (1,57,284) has further decreased by 45.02 percent as compared to corresponding period of 2019 (2,86,091)
- India contributes to 87 per cent of the total malaria cases in South-East Asia.
- India is in malaria elimination mode and has set targets to achieve a malaria-free status by 2030.

CORS

GS-III SCIENCE & TECHNOLOGY

Context

- By 2022, SVAMITVA Scheme would ensure CORS network coverage across the Country.

About

- Continuously Operating Reference System (CORS) is an infrastructure that can solve the problem of accuracy and

real-time data acquisition.

- CORS is a geo-positioning infrastructure that provides seamless consistent and uniform framework of the country.
- It offers highly accurate DGPS service that also improves the speed, efficiency, and simplicity of in-house data-acquisition process.
- CORS network also act as a driver for reliable data collection by 'authorized-crowd-sourcing'.
- The NOAA Continuously Operating Reference Stations (CORS) Network (NCN), managed by NOAA/National Geodetic Survey, provide Global Navigation Satellite System (GNSS) data, supporting three dimensional positioning, meteorology, space weather, and geophysical applications throughout the United States.
- ✓ *A Differential Global Positioning System (DGPS) is an enhancement to the Global Positioning System (GPS) which provides improved location accuracy, in the range of operations of each system, from the 15-metre (49 ft) nominal GPS accuracy to about 1-3 centimeters (0.39-1.18 in) in case of the best implementation.*

DNA FINGERPRINTING

GS-III SCIENCE & TECHNOLOGY

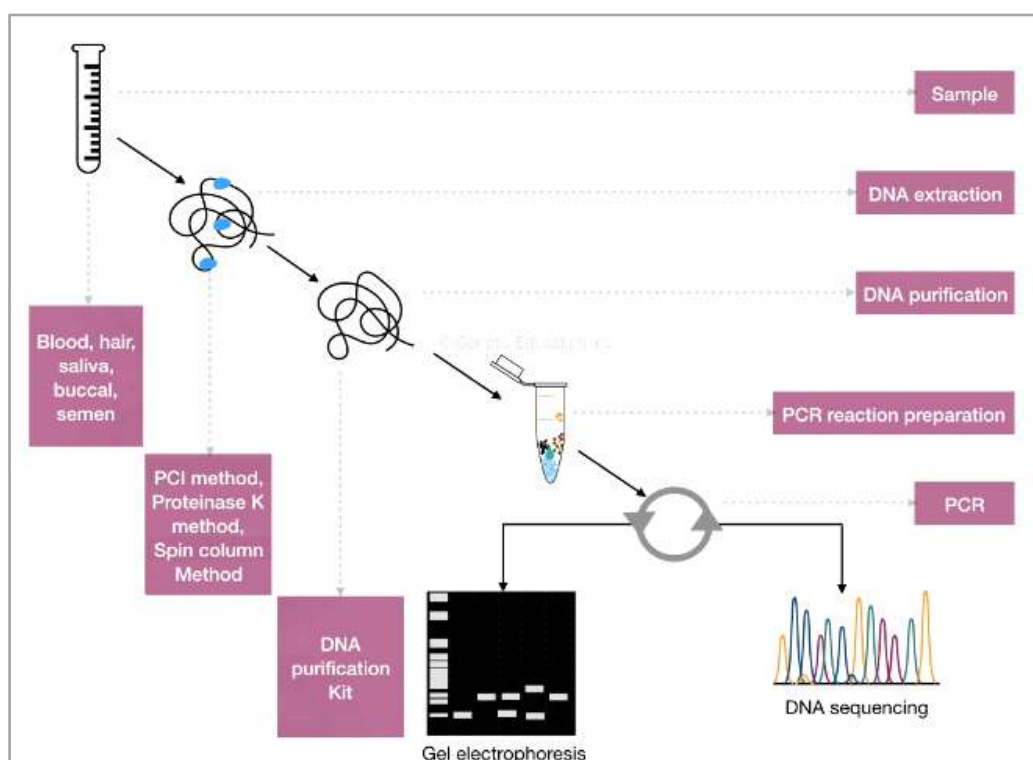
Context

- The Hyderabad-based Centre for DNA Fingerprinting and Diagnostics (CDFD) has established a first-of-its-kind Paediatric Rare Genetic Disorders Laboratory.
- The lab will be multi-faceted as the services provided will include genome sequencing, identifying of causal genetic variations, generation of animal models, telemedicine and creation of a database on the disease-associated genetic variants in the Indian population.

What is a DNA fingerprint?

- DNA fingerprinting is a method used to identify an individual from a sample of DNA by looking at unique patterns in their DNA.

Steps involved in DNA Fingerprinting (PCR Technique)



Some common DNA Fingerprinting Techniques

AFLP	Amplified Fragment Length Polymorphism
AP-PCR	Arbitrary Primed PCR
ASAP	Allele Specific Associated Primers
CAPS	Cleaved Amplified Polymorphic Sequences
DAF	DNA Amplification Fingerprinting
RAPD	Random Amplified Polymorphic DNA
RFLP	Restriction Fragment Length Polymorphism
SCAR	Sequence Characterised Amplified Region
SSCP	Single Strand Conformation Polymorphism
SSR	Simple Sequence Repeats
SSR-SPAR	SSR-Single Primer Amplification Reaction
STMS	Sequence Tagged Microsatellite Loci

RAPD VERSUS RFLP	
RAPD	RFLP
A PCR-based technique for identifying genetic variation	A molecular method of genetic analysis, which allows individuals to be identified based on unique patterns of restriction enzyme cutting in specific regions of DNA
A PCR-based method	A non-PCR-based method
Involves in the amplification of genetic markers in a genome by using random primers	Involves in the restriction digestion of the genomic DNA
Requires a small quantity of DNA (10-50 ng) for the analysis	Requires comparatively a large quantity of DNA (2-10 µg)
Uses random primers universal for any species	Uses different species-specific probes
Has fewer steps and hence it is a rapid process	Has more steps and therefore, it is a slow process
Less reliable	More reliable
Can detect 1-10 loci	Can detect 1-3 loci
Unable to detect allelic variants	Can detect allelic variants
Important for gene mapping, population genetics, molecular evolutionary genetics, animal and plant breeding, etc.	Important in genotyping, forensics, paternity testing, the detection of patterns in hereditary diseases, and in the detection of disease carriers
	Visit www.PEDIAA.com

Applications of DNA Fingerprinting

- DNA Fingerprinting is used by scientists to distinguish between individuals of the same species using only samples of their DNA. It is a primary method for identifying an individual.

Forensic Science

- Biological materials used for DNA profiling are: Blood, Hair, Saliva, Semen, Body tissue cells etc. DNA isolated from the evidence sample can be compared through VNTR (Variable number of tandem repeats) prototype. It is useful in solving crimes like murder and rape.

Paternity and Maternity Determination

- A Person accedes to his or her VNTRs from his or her parents. Parent-child VNTR prototype analysis has been used to solve disputed cases. This information can also be used in inheritance cases, immigration cases.

Personal Identification

- It utilizes the concept of using DNA fingerprints as a sort of genetic bar code to pinpoint individuals.

Diagnosis of Inherited Disorders

- It is also useful in diagnosing inherited disorders in both prenatal and newborn babies. These disorders may include cystic fibrosis, hemophilia, Huntington's disease, familial Alzheimer's, sickle cell anemia, thalassemia, and many others.

Development of Cures for Inherited Disorders

- By studying the DNA fingerprints of relatives who have a history of some particular disorder, DNA prototypes associated with the disease can be ascertained.

Detection of AIDS

- By comparing the band of HIV "RNA" (converted to DNA using RTPCR) with the bands form by the man's blood, person suffering with AIDS can be identified.

Breeding Program

- Breeders conventionally use the phenotype to evaluate the genotype of a plant or an animal.
- As it is difficult to make out homozygous or heterozygous dominance from appearance, the DNA fingerprinting

allows a fastidious and precise determination of genotype. It is basically useful in breeding race horses and hunting dogs.

DNA FINGERPRINTING VERSUS DNA PROFILING

DNA FINGERPRINTING	DNA PROFILING
The analysis of DNA in order to identify individuals	The analysis of individuals' DNA characteristics for forensic studies
A molecular genetic method, which allows the identification of individuals according to the unique patterns of DNA	A forensic technique important in both criminal investigations and parentage testing
Focuses on VNTRs including both minisatellites and microsatellites	Mainly focuses on STRs, which are microsatellites
Techniques: RFLP, AFLP, and PCR	Techniques: PCR
A cumbersome method with many steps	A simple process, which can be automated
	Visit www.PEDIAA.com

HUMANS IN SPACE POLICY 2021

GS-III SCIENCE & TECHNOLOGY

Context

- India plans to have a sustained human presence in space and is coming out with a policy framework and a long-term roadmap.
- The Department of Space (DoS) has envisaged a national effort to meet the goal of successful demonstration of human spaceflight capability and to achieve the vision of sustained human presence in space.

Scope

- The policy frame work given in this document is applicable to activities presently postulated under Indian human space program (IHSP) and for those activities which shall be defined and carried out in future in conjunction with IHSP.

Humans in Space policy 2021

- The Department of Space shall govern and undertake the activities under Indian human space programme under following policy principle: "The Humans in Space Policy aims for sustained human presence in space as an instrument for development, innovation and foster collaborations in alignment with national interests."

Authorisation & Execution

- DoS/ISRO with a mandate to carry out space activities in India is tasked with execution of activities of Indian human space programme.
- DoS/ISRO shall issue appropriate guidelines, including approval-mechanism from time-to-time for the activities under Indian human space programme in conformation with extant Space Act of India and policy.
- The guidelines and procedures supporting the Humans in Space Policy 2021 will be issued separately as part of policy document.

- This "Humans in Space Policy 2021" shall take effect upon approval of the Union Cabinet of India.

Mandate

In pursuance of the Humans in Space Policy 2021, Department of space shall

- Demonstrate human space flight capability leveraging the expertise of ISRO, national research institutions, academia, industry and other organisations.
- Define long-term road map for sustained human presence in low earth orbit and undertaking exploration missions beyond low earth orbit.
- Identify and develop necessary technologies for enabling sustained presence of humans in low earth orbit and beyond.
- Constitute a suitable mechanism to enable participation of various national stake holders in Indian human space programme.
- Define and develop a comprehensive collaborative framework for scientific research in domains linked to human space activities keeping in mind the national priorities.
- Foster International cooperation and evolve collaborative programs of mutual interest.
- Strive for human resource development, and encourage entrepreneurship.
- Enhance public involvement in human space programmes through outreach activities.

Need for the Policy

- Given the collaborative nature of human spaceflight due to its multi-disciplinary nature, it is essential to have a policy-framework.
- This Policy will foster partnerships and address proliferation concerns and compliance to existing policies.
- Human-spaceflight programme needs to be sustained over longer periods to deliver tangible benefits.
- Hence, it is essential that there is a policy that can enable sustained presence in low earth orbit and beyond through reliable, robust, safe and affordable means.
- This can be done by undertaking appropriate capacity building measures like collaborations, infrastructure development, facilities modernization, technology development and human resource development as envisaged in the Policy.
- The Policy would also encourage new industries, create high technology jobs, enable socio-economic growth and further enhance India's stature and role in space.



NANOBODIES

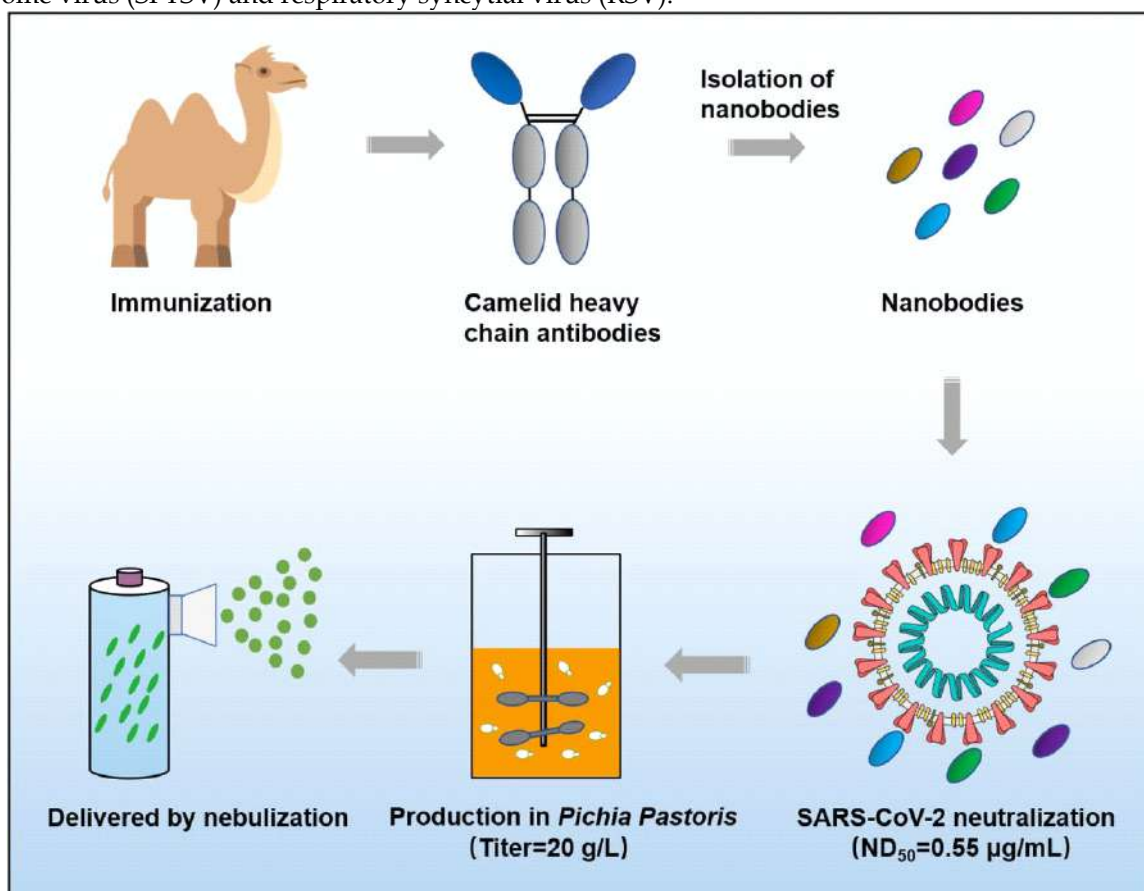
GS-III SCIENCE & TECHNOLOGY

Context

- Nanobodies are a potential therapeutic strategy for treating COVID-19.

About

- Nanobodies (Nbs) are a particular type of antibodies naturally produced by camelids' immune systems, i.e., camels, llamas, and alpacas.
- Unlike normal antibodies made from 4 proteins bound together: two heavy chains and two light chains, nanobodies are made from just 2 proteins: 2 heavy chains, constituting a single variable domain (Nb) specific for binding antigens.
- Nanobodies are used as therapeutics agents against viral infection, such as severe fever with thrombocytopenia syndrome virus (SFTSV) and respiratory syncytial virus (RSV).



EINSTEINIUM

GS-III SCIENCE & TECHNOLOGY

Context

- A team of scientists at the Berkeley Lab has reported some of the properties of element 99 in the periodic table called "Einsteinium", named after Albert Einstein.
- It was discovered in 1952 in the debris of the first hydrogen bomb (the detonation of a thermonuclear device called "Ivy Mike" in the Pacific Ocean).

The element

- Einsteinium is a synthetic element with the symbol Es and atomic number 99.
- Einsteinium is a member of the actinide series and it is the seventh transuranic element. It is named to honor Albert Einstein.
- Einsteinium was discovered as a component of the debris of the first hydrogen bomb explosion in 1952.
- Its most common isotope einsteinium-253 (half-life 20.47 days) is produced artificially from decay of californium-253 in a few dedicated high-power nuclear reactors with a total yield on the order of one milligram per year.
- Einsteinium is a soft, silvery, paramagnetic metal.
- Its chemistry is typical of the late actinides, with a preponderance of the +3 oxidation state; the +2 oxidation state is also accessible, especially in solids.
- The high radioactivity of einsteinium-253 produces a visible glow and rapidly damages its crystalline metal lattice, with released heat of about 1000 watts per gram.
- Difficulty in studying its properties is due to einsteinium-253's decay to berkelium-249 and then californium-249 at a rate of about 3% per day.
- The isotope of einsteinium with the longest half-life, einsteinium-252 (half-life 471.7 days) would be more suitable for investigation of physical properties, but it has proven far more difficult to produce and is available only in minute quantities, and not in bulk.
- Einsteinium is the element with the highest atomic number which has been observed in macroscopic quantities in its pure form, and this was the common short-lived isotope einsteinium-253.
- Like all synthetic transuranic elements, isotopes of einsteinium are very radioactive and are considered highly dangerous to health on ingestion.

Einsteinium	
atomic number	99
symbol	Es
electron configuration	[Rn]5f ¹¹ 7s ²
name	einsteinium
atomic weight	(252)
physical state at 20 °C (68 °F)	==
<div> <div>Actinide elements</div> <div>Synthetically prepared</div> </div>	
<small>() indicates the mass of the longest-lived isotope.</small>	
<small>© Encyclopedia Britannica, Inc.</small>	

STARDUST 1.0

GS-III SCIENCE & TECHNOLOGY

Context

- Stardust 1.0 was launched from Loring Commerce Centre in Maine, US, a former military base.
- Thus, it became the first commercial space launch powered by biofuel, which is non-toxic for the environment as opposed to traditionally used rocket fuels.

Stardust 1.0

- Stardust 1.0 is a launch vehicle suited for student and budget payloads.
- The rocket is 20 feet tall and has a mass of roughly 250 kg.
- The rocket can carry a maximum payload mass of 8 kg and during its first launch carried three payloads.
- These rockets will help to launch small satellites called cubesats into space in a way that is relatively cheaper than using traditional rocket fuel and is less toxic for the environment.

Biofuel

- But broadly, biofuels are obtained from biomass, which can be converted directly into liquid fuels that can be used as transportation fuels.
- According to the US government's office of Energy Efficiency and Renewable Energy, the two most common kinds of biofuels in use today are ethanol and biodiesel and they both represent the first generation of biofuel technology.
- Ethanol, for instance, is renewable and made from different kinds of plant materials.
- Biodiesel on the other hand is produced by combining alcohol with new and used vegetable oils, animal fats or recycled cooking grease.

WHAT ARE BIOFUELS?

BIOFUEL - is solid, liquid, or gaseous fuels made from biomass



BIOMASS - is material of biological origin excluding those embedded in geological formations and those transformed to fossil



Ethanol is a renewable fuel for automobiles with internal combustion engines. It is generally made from plant matter.

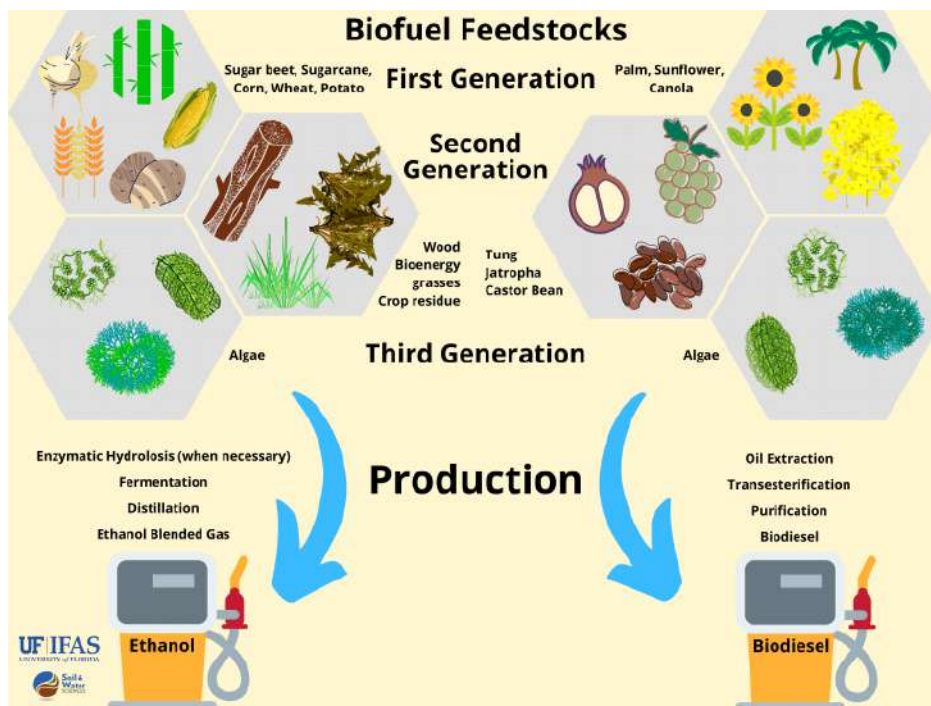


Biodiesel is a renewable fuel for trucks and other automobiles with Diesel engines. It is generally made from plant or animal oil.

CONVENTIONAL BIOFUELS

VS.

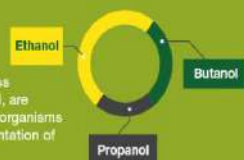
ADVANCED BIOFUELS



BIOFUELS

Bio-Alcohol

Most commonly ethanol, and less commonly propanol and butanol, are produced by the action of microorganisms and enzymes through the fermentation of sugars or starches or cellulose.



Biodiesel

Refers to a vegetable oil- or animal fat-based diesel fuel consisting of long-chain alkyl (methyl, ethyl, or propyl) esters. Biodiesel is typically made by chemically reacting lipids with an alcohol producing fatty acid esters.



Vegetable Oil

Straight unmodified edible vegetable oil is generally not used as fuel, but lower-quality oil can and has been used for this purpose. Used vegetable oil is increasingly being processed into biodiesel, or (more rarely) cleaned of water and particulates and used as a fuel.



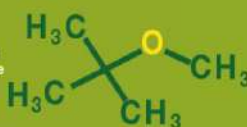
Green Diesel

Is produced by hydrocracking vegetable oils and animal fats. Hydrocracking is a refinery method that uses high temperatures and pressure with a catalyst to break down larger molecules into shorter hydrocarbon chains used in diesel engines.



Bioethers

(Also referred to as fuel ethers or oxygenated fuels) are cost-effective compounds that act as octane rating enhancers. They also enhance engine performance, whilst significantly reducing engine wear and toxic exhaust emissions. Greatly reducing the amount of ground-level ozone, they contribute to air quality.



Biogas

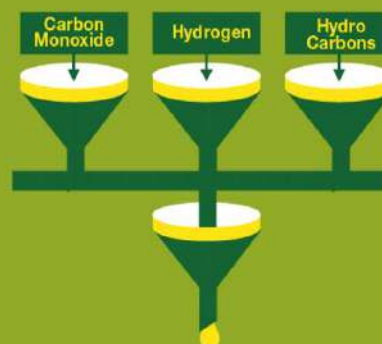
Is methane produced by the process of anaerobic digestion of organic material by anaerobes. It can be produced either from biodegradable waste materials or by the use of energy crops fed into anaerobic digesters to supplement gas yields. The solid byproduct, digestate, can be used as a biofuel or a fertilizer.



Syngas

Is a mixture of carbon monoxide, hydrogen and other hydrocarbons, produced by partial combustion of biomass, that is, combustion with an amount of oxygen that is not sufficient to convert the biomass completely to carbon dioxide and water. The resulting gas mixture, syngas, is more efficient than direct combustion of the original biofuel; more of the energy contained in the fuel is extracted.

The main reaction that produces syngas, steam reforming, is endothermic with 206 kJ/mol methane needed for conversion. The first reaction, between incandescent coke and steam, is strongly endothermic, producing carbon monoxide and hydrogen. When the coke bed has cooled to a temperature at which the endothermic reaction can no longer proceed, the steam is then replaced by a blast of air.



BLACK HOLE

GS-III SCIENCE & TECHNOLOGY

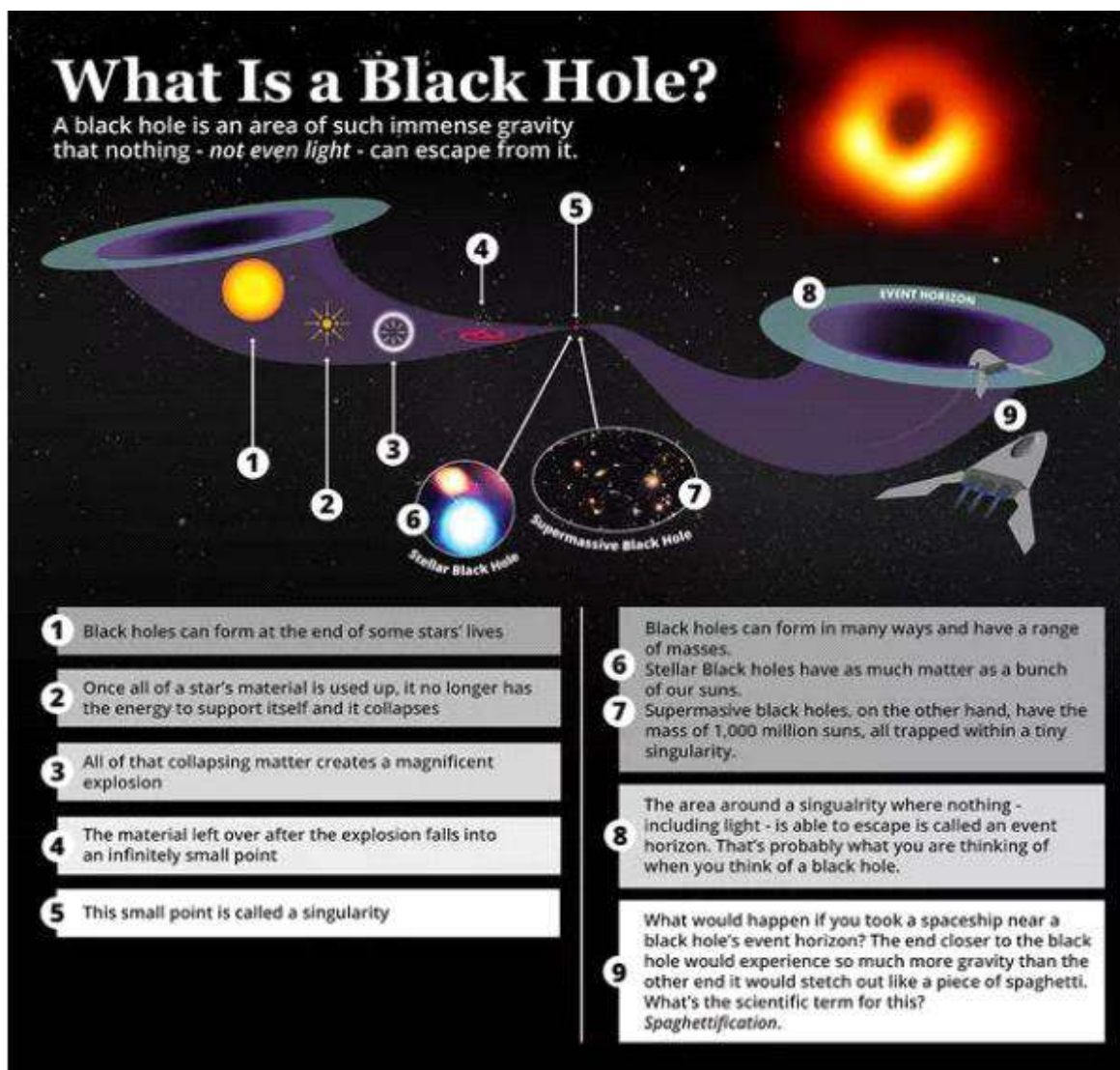
Context

- Indian astronomers have reported one of the strongest flares from a feeding super massive black hole or blazar called BL Lacertae.
- Analysis of this Black Hole can help trace the mass of the black hole and the source of this emission.

What is a Black Hole?

- A black hole is a place in space where gravity pulls so much that even light can not get out.
- The gravity is so strong because matter has been squeezed into a tiny space.
- This can happen when a star is dying.
- Because no light can get out, people can't see black holes. They are invisible.
- Space telescopes with special tools can help find black holes.

- The special tools can see how stars that are very close to black holes act differently than other stars.



How Do Black Holes Form?

- Scientists think the smallest black holes formed when the universe began.
- Stellar black holes are made when the center of a very big star falls in upon itself, or collapses.
- When this happens, it causes a supernova.
- A supernova is an exploding star that blasts part of the star into space.
- Scientists think supermassive black holes were made at the same time as the galaxy they are in.

If Black Holes Are "Black," How Do Scientists Know They Are There?

- A black hole can't be seen because strong gravity pulls all of the light into the middle of the black hole.
- But scientists can see how the strong gravity affects the stars and gas around the black hole.
- Scientists can study stars to find out if they are flying around, or orbiting, a black hole.
- When a black hole and a star are close together, high-energy light is made.
- This kind of light can't be seen with human eyes.
- Scientists use satellites and telescopes in space to see the high-energy light.

Could a Black Hole Destroy Earth?

- Black holes do not go around in space eating stars, moons and planets.
- Earth will not fall into a black hole because no black hole is close enough to the solar system for Earth to do that.
- Even if a black hole the same mass as the sun were to take the place of the sun, Earth still would not fall in.

- The black hole would have the same gravity as the sun.
- Earth and the other planets would orbit the black hole as they orbit the sun now.
- The sun will never turn into a black hole.
- The sun is not a big enough star to make a black hole.

STRUCTURE OF BLACK HOLES:

▪ Singularity:

The point where whole mass of a black hole is concentrated.

▪ Photon Sphere:

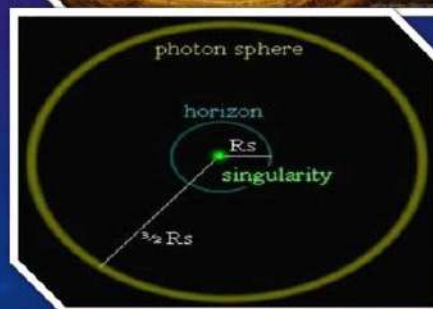
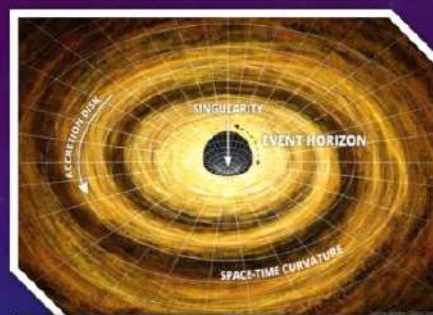
The outer edge where light bends but is still escapable.

▪ Event Horizon:

It is a "point of no return" around a black hole.

▪ Accretion Disk:

It is a disk of gases, dust, stars and planets that fall into the orbit of a black hole.



TYPES OF BLACK HOLES:

▪ Stellar-mass Black Holes:

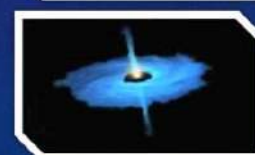
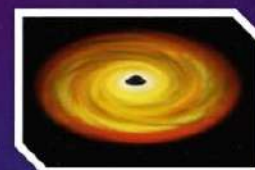
Stellar-mass black holes are created when massive stars explode, leaving behind a black hole with the mass of just a few suns.

▪ Supermassive Black Holes:

Supermassive black holes exist in the hearts of galaxies and usually contain the mass equivalent to millions and billions of suns.

▪ Intermediate Black Holes:

Such bodies could form when stars collide in a chain reactions and usually contain the mass equivalent to hundreds and thousands of suns.



THE FINITE SPEED OF LIGHT:

- As you all know (especially Contemporary people), That the speed of light is a finite value in a vacuum.
- But when an object enters the event horizon of a black hole then it have to move with speed more than light.
- In order to gain speed more than speed of light infinite amount of force is needed.
- In all this universe there is no source of infinite force.
- Therefore, the fallen objects never return.

FACTS ABOUT BLACK HOLES:

- The massive gravitational influence of a black hole bends space time in the near neighborhood.
- The closer you get to a black hole, the slower time runs.
- Material that gets too close to a black hole gets sucked in and can never escape.
- Black holes do not emit radiation on their own.
- They are detected by the radiation given off as material is heated in the accretion disk.
- Their detection is also possible by the black hole's gravitational effect on other nearby objects or light passing by.

BL Lacerte

- BL Lacertae or BL Lac is a highly variable, extragalactic active galactic nucleus (AGN or active galaxy).

AGN

An active galactic nucleus (AGN) is a compact region at the center of a galaxy that has a much-higher-than-normal luminosity over at least some portion of the electromagnetic spectrum with characteristics indicating that the luminosity is not produced by stars. Such excess non-stellar emission has been observed in the radio, microwave, infrared, optical, ultra-violet, X-ray and gamma ray wavebands. A galaxy hosting an AGN is called an "active galaxy". The non-stellar radiation from an AGN is theorized to result from the accretion of matter by a supermassive black hole at the center of its host galaxy.

Active galactic nuclei are the most luminous persistent sources of electromagnetic radiation in the universe, and as such can be used as a means of discovering distant objects.

The observed characteristics of an AGN depend on several properties such as the mass of the central black hole, the rate of gas accretion onto the black hole, the orientation of the accretion disk, the degree of obscuration of the nucleus by dust, and presence or absence of jets.

Numerous subclasses of AGN have been defined based on their observed characteristics; the most powerful AGN are classified as quasars. A blazar is an AGN with a jet pointed toward the Earth, in which radiation from the jet is enhanced by relativistic beaming.

Blazar

- A blazar is a feeding super-massive black-hole (SMBH) in the heart of a distant galaxy that produces a high-energy jet viewed face-on from Earth.
- Like other forms of active galactic nuclei (AGN), blazars are the most luminous and energetic objects in the

known universe.

- The central SMBH that drives an AGN are the nucleation seeds that stimulates the formation of their host galaxies, while the SMBH itself grows in the process.

Super Massive Black Hole (SMBH)

- In the heart of every galaxy is an SMBH, a concentration of matter so dense that not even light can escape, in the center of which our current theories of spacetime break down.
- They range from hundreds of thousands to billions of solar-masses, concentrated into an object the size of our solar system.
- They are the nucleation seeds that attract primordial gas to form new galaxies of hundreds of billions of stars and their planets, whose combined mass, along with dark matter, forms a gravitationally bound structure.

Magnetar

- A magnetar is a type of neutron star believed to have an extremely powerful magnetic field.
- Like other neutron stars, magnetars are around 20 kilometres in diameter and are formed by the collapse of a star with a mass 10–25 times that of the Sun and have a mass about 1.4 solar masses.
- The density of the interior of a magnetar is extremely high (tablespoon of its substance would have a mass of over 100 million tons)
- Magnetars are differentiated from other neutron stars by having even stronger magnetic fields, and by rotating more slowly in comparison.
- The active life of a magnetar is short.

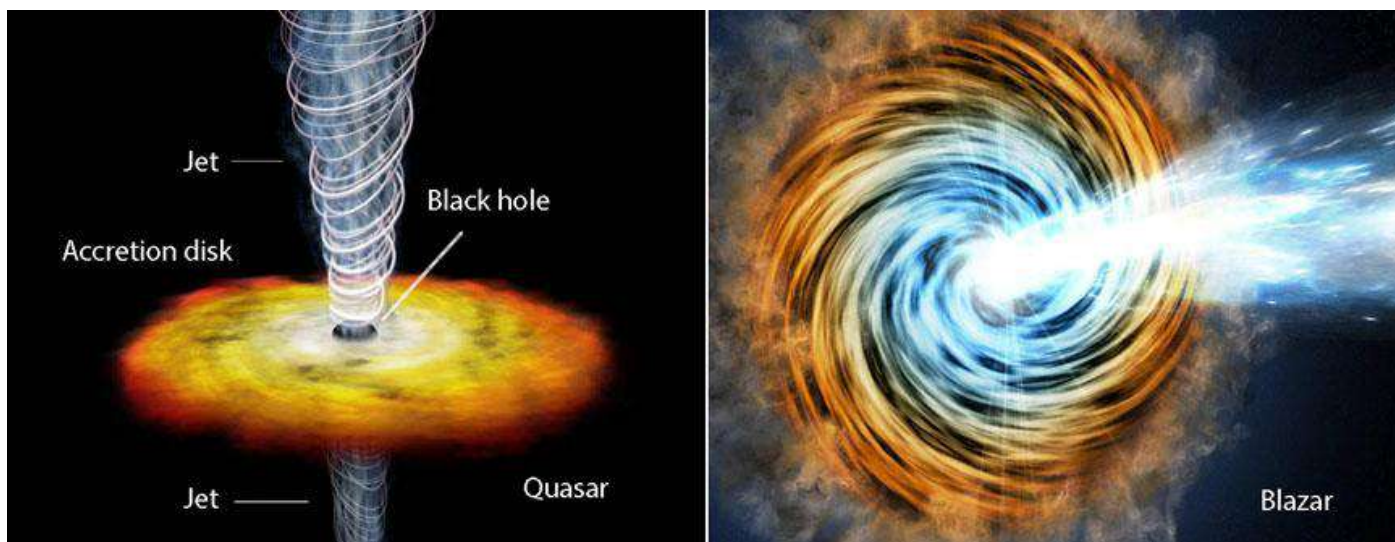
Pulsar

- A pulsar is a neutron star that's spinning in a special way.
- The Earth has two north poles and two south poles.
- One set is because the Earth is spinning: the poles are the tips of the axis that the Earth spins on.
- The other set is because the Earth has a magnetic field: all magnets have a north side and a south side.
- On Earth, these two sets of poles are slightly misaligned.
- In a pulsar, the poles are even more misaligned, so as the star spins, the magnetic field is swung around in circles.
- When this happens to a neutron star, a super-bright beam of light beams out from the magnetic poles.
- Since these poles are swinging around, so do the beams of light – just like a lighthouse.
- Pulsars spin very fast. And basically these stars are the products of the explosive transformation of a massive star.
- The radio waves of a pulsar escape from its north and south magnetic poles.
- "Light" in this case can also mean X-Rays, Gamma-Rays, or other invisible kinds of light.



Quasar

- Quasars are those that look like stars, but they are extremely luminous objects at all wavelengths.
- The redshift exhibited by them reveals that they are at great distances.
- They are likely to form from black holes, when a large part of their mass is converted into energy;
- Such energy would be what we see as a quasar.
- They can release energy capable of illuminating a galaxy and equivalent to millions of suns.
- Currently, more than 200,000 quasars have been identified.



- ✓ Pulsars are highly magnetized rotating neutron stars, while quasars are extremely powerful and distant active galactic nuclei.
- ✓ Quasars are bigger than pulsars.
- ✓ Pulsars are less bright than quasars.
- ✓ Quasars are more distant than pulsars.
- ✓ The pulsars have pulse and rotation, while the quasars do not.
- ✓ Quasars are associated with black holes, while pulsars are not.
- ✓ Pulsars are newer than quasars.

Radio Galaxies

- A particular type of active galaxy that emits more light at radio wavelengths than at visible wavelengths, also known as a radio-luminous galaxy or radio-loud galaxy.
- Radio galaxies are driven by non-thermal emission.
- Radio telescopes show that some radio galaxies, called extended radio galaxies, have lobes of radio emission extending millions of light-years from their nuclei.
- Centaurus A is a nearby example of an extended radio galaxy that features two outer lobes 650,000 and 1,350,000 light-years in diameter.
- In contrast, compact radio galaxies emit radio lobes not much larger than the galactic nucleus.



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THE ECONOMICS OF HAPPINESS

GS-IV ETHICS

Introduction

- According to Researchers there is a strong correlation between wealth and happiness. They say: *"Rich people and nations are happier than their poor counterparts."*
- But they also note that money's impact on happiness isn't as large as we might think.
- Economists and national leaders are increasingly talking about measuring a country's status with other metrics and even with "Happiness."
- This is clearly a paradox as most people want more income and strive for it. In this article we shall be decoding the curious relationship between Money and Happiness.

The case for money = happiness

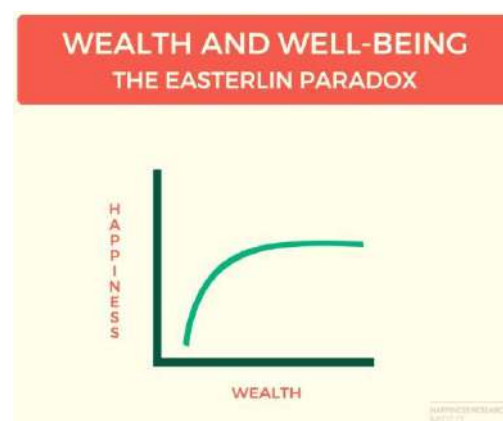
World Happiness Report 2020		International Monetary Fund 2017 Report
S.No.	The least happy African countries are	Poorest Countries are (2017)
1	Bangui/Central African Republic (178th)	Central African Republic: GNI per capita: \$663 & GDP: \$3.1 billion
2	Kigali/Rwanda (176th)	Rwanda: GNI per capita: \$1,814 & GDP: \$22.7 billion
3	Antananarivo/Madagascar (172nd)	Madagascar: GNI per capita: \$1,339 & GDP: \$36.2 billion
4	Harare/Zimbabwe (171st)	Zimbabwe: GNI per capita: \$1,990 & GDP: \$36.6 billion

So, there is a clear correlation between Happiness and Income of a country.

- Harvard Business School Report**
- A 2003 research paper *"The Macroeconomics of Happiness"* by Harvard Business showed that reported happiness monotonically increases with income, and decreases during economic shocks such as a recession. The paper showed that reported happiness is strongly correlated to GDP across countries.

The case for why money ≠ happiness

- Gallop World Poll:** It shows that the relationship between subjective well-being and income is often weak. Low-income countries in Africa and South Asia are the exceptions though.
- Daniel Kahneman's Research:** It reported that the correlation between household income and reported life satisfaction or happiness with life typically ranges from 0.15 to 0.30.
- Richard Layard's Research:** Professor Richard Layard in his book, *"Happiness: Lessons from a New Science"* writes that all of the evidence shows that people are no happier today than they were 50 years ago. This is despite incomes more than doubling in that time period. This paradox is equally true for the UK, US and Japan. Professor Layard's research says that money has far greater impact in only those nations which are below the poverty line.
- 'Easterlin Paradox':** The 'Easterlin Paradox' states that at a point in time happiness varies directly with income both among and within nations. But over time happiness does not trend upward as income continues to grow. In the mid-70s, economist Richard Easterlin showed that despite a steadily growing American economy over the previous decades, the average happiness had remained almost unaltered.



- **Hedonic Treadmill**

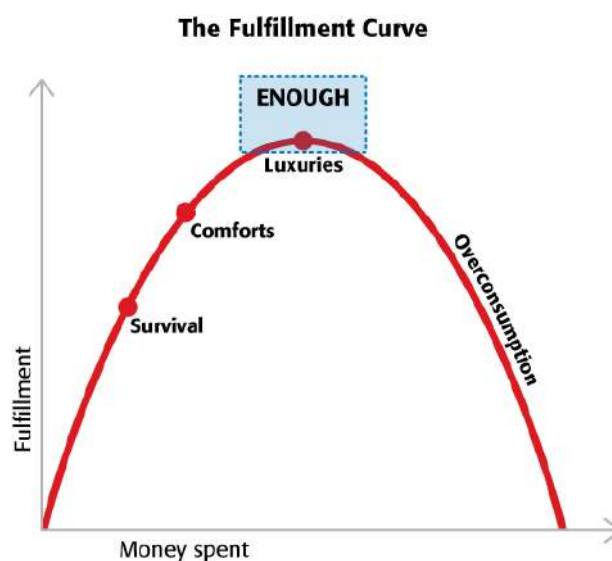
According to Researchers, as the income increases, the lifestyle grows with it. As our lifestyle becomes more expensive so we have to work harder to earn more. We think that if only we got another raise, then we would have “Enough” and we would be happy. But in all likelihood, we just repeat the process by spending even more. Psychologists call this vicious cycle the hedonic treadmill.

People on the hedonic treadmill think they’d be happy if they just had a little more money. But when they get more money, they discover something else they want. Because they’re never content with what they have, they can never have “Enough”.

- **London School of Economics Report:** London School of Economics suggests mental health has greater impact on reported life satisfaction than income. To put it in numbers, income gaps explain only 1% of the variation in happiness in the community whereas differences in emotional well-being explain over 4%. There is very little evidence that income drives happiness.

- **The Fulfillment Curve:**

This curve suggests that the relationship between spending and happiness is non-linear. More spending does lead to more fulfillments—up to a point. But spending too much can actually have a negative impact on your quality of life.



- **Abraham Maslow’s Theory on the “Hierarchy of Needs”:**

Abraham Maslow did a comprehensive study which involved interviewing exemplary personalities like Albert Einstein and Eleanor Roosevelt.

Then he made a list of key human needs (ingredients) that he found were necessary for optimum psychological health and happiness.

He came to categories a hierarchical list of needs that need to be fulfilled for increased life satisfaction.



SELF – ACTUALIZATION (the “highest” need)

This is where Maslow had seen the most successful people had reached.

- Where one is acting in true accordance with oneself
- Fulfilling one’s true, maximum potential
- Such people are found to experience a strong, grounded sense of well-being and satisfaction with their lives
- They are independent thinkers, not overly influenced by general culture

- Maslow termed the bottom 4 needs as the “deficiency needs” — these are the fundamentals that humans cannot do without.
- Once these are satisfied and one is a ‘healthy person’, and becomes motivated by the pursuit of self-actualization.
- From Abraham Maslow’s Research it can be concluded that beyond ‘physiological’ and ‘safety’ needs, income has no role.

Happiness as the new measure of well being

- There is a lot of discontent over the conventional measures of well-being, including measures such as per capita incomes and gross domestic product (GDP). Thus, there are talks of considering “Happiness as the new GDP”

Issues with GDP

“The gross national product does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages; the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage; neither our wisdom nor our learning; neither our compassion nor our devotion to our country; it measures everything, in short, except that which makes life worthwhile.” — Robert F. Kennedy

GDP can’t distinguish between economic activities that increase a nation’s wealth and ones that eat into its natural disasters, curbing pollution etc--- Basically Negative Externalities.

Many things of value in life cannot be fully captured by GDP, but they can be measured by metrics of health, education, political freedom, and the like. In the 1980s Amartya Sen began to distinguish between “commodities,” which show up in GDP, and “capabilities,” which do not.

Sen’s and Mehabub Ul Haq’s efforts helped in supplanting GDP with HDI (“Human Development Index”).

Compiling GDP involves making a lot of choices, and even reasonable choices can lead to skewed results. Example: unpaid household work, although clearly of great economic importance, are left out of the calculations. And the value of government programs, including health care provision, is generally underrepresented.

Instance of 1990s Globalization

Developing nations with lots of foreign direct investment saw GDP grow much faster than GNP would have – but didn’t necessarily reap the benefits, because the investments’ profits went mostly to multinational corporations.

Various Efforts made

- Since the 1970s, **Bhutan has been using an index of Gross National Happiness** instead of GDP to measure success.
- Many other countries have been trying to replicate the Bhutan model of happiness maximization.
- In the US, for instance, the state of Maryland officially reports a measure called Genuine Progress Indicator which accounts for inequality, environmental degradation, health, and leisure.
- In 2016, Madhya Pradesh became the first Indian state to set up a “Department of Happiness”.



"Gross National Happiness"

The term "Gross National Happiness" was coined in 1972 by Sicco Mansholt, one of the Founding Fathers of the European Union. Bhutan's fourth King, Jigme Singye Wangchuck popularized the concept in the late 1990s.

Gross National Happiness is a philosophy that guides the government of Bhutan. It includes an index which is used to measure the collective happiness and well-being of a population. 20th March has been declared as the International Day of Happiness by the UN in 2012.



The Gross National Happiness Index is a single number index developed from 33 indicators categorized under nine domains. The GNH Index is constructed based upon a robust multidimensional methodology known as the **Alkire-Foster method**. The GNH Index is designed to create policy incentives for the government, NGOs and businesses of Bhutan to increase GNH. The 33 indicators under the nine domains aim to emphasize different aspects of wellbeing and different ways of meeting these underlying human needs.



Better Life Index

The Organization for Economic Cooperation and Development (OECD) through its Better Life Index, it is conducting an impressive work programme to analyse quality of life in the 34 developed countries that constitute its membership. The OECD index provides a broad overview of quality life, measuring the performance of countries on various important issues, from housing to environment and from civic engagement to life satisfaction. Like the Gross National Happiness (GNH) concept, the Better Life Index indicates what the good places to live are in a much broader sense than the mere economic data of GDP could do. Wealth's correlation with happiness is limited at best, scientists have shown time and again.

But there remains a problem with this kind of national indices: they provide national averages – and do not say anything about the extremes and the equality of the data.

World Happiness Report

The World Happiness Report is a publication of the United Nations Sustainable Development Solutions Network. It contains articles and rankings of national happiness, based on respondent ratings of their own lives, which the report also correlates with various (quality of) life factors. The report primarily uses data from the Gallup World Poll.

THE RELATIONSHIP BETWEEN MONEY AND HAPPINESS

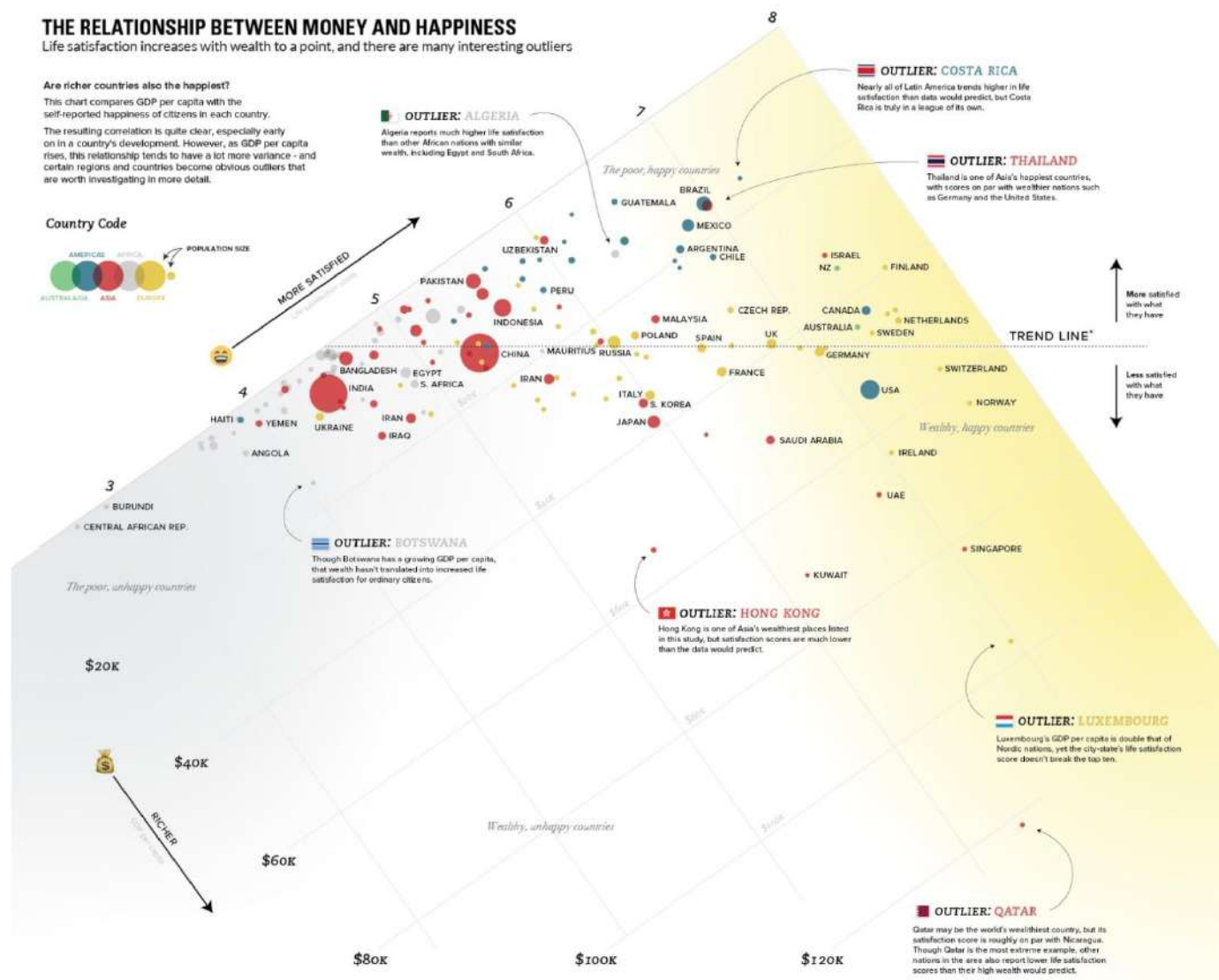
Life satisfaction increases with wealth to a point, and there are many interesting outliers

Are richer countries also the happiest?

This chart compares GDP per capita with the self-reported happiness of citizens in each country.

The resulting correlation is quite clear, especially early on in a country's development. However, as GDP per capita rises, this relationship tends to have a lot more variance - and certain regions and countries become obvious outliers that are worth investigating in more detail.

Country Code



India and Happiness

- India was ranked at a dismal 144 out of 156 nations at World Happiness Report 2020.
- India scored 3.573 points, ranking lower than Pakistan which secured 5.693 points.
- The World Happiness Report 2020 for the first time ranked cities around the world by their subjective well-being and digs more deeply into how the social, urban and natural environments combine to affect our happiness.

Delhi's 'happiness curriculum'

- The curriculum calls for schools in India to promote development in cognition, language, literacy, numeracy and the arts along with addressing the well-being and happiness of students.
- It further says that future citizens need to be "mindful, aware, awakened, empathetic, firmly rooted in their identity."
- It is based on the premise that education has a larger purpose, which cannot be in isolation from the "dire needs" of today's society.

So, if making people happy is so important, why are policymakers not making it their primary target?

Replacing GDP with Happiness Index

Will we truly be better off with a happiness index replacing the GDP (and the related measure of per-capita income)?

- The answer suggested by a wide body of research is a big “NO”. And the reason is simple: measuring Happiness is really difficult.

For instance,

- **The 2016 World Happiness Report.** The report is based on responses to questions such as “how people see their lives”, where people are asked to evaluate their current lives on a scale of 0 to 10.
- The other popular survey, by Gallup, asks people about their experiences and feelings – “smiling, stress, pain, enjoyment” – responses to which are then combined to create an index.
- The problem with such methodologies is that the data, or the answers to the questions, are not independent of space and time.
- In some countries, people might shy away from responding positively even when they are actually “happy”.
- On the other hand, some people may be compelled to respond that they are satisfied with their lives because of Societal and Political pressures.
- This makes the cross-country comparison of happiness deeply problematic.
- The reliability of surveys in tracking happiness over time is extremely dodgy.
- So, the mission to replace GDP with a happiness index is doomed to fail.

GDP: The more reliable measure

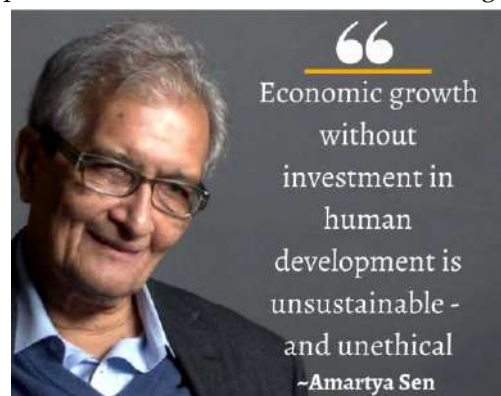
- Despite its fair share of problems, the measurement of GDP is a fairly robust exercise.
- The GDP measures the total output of all goods and services produced using prices as a common metric of value.
- Although it often excludes the informal economy or unpaid labour, the fixity of its definition across countries and over time makes it a reliable yardstick.

Opinion of the Economists



- Economists and economic policy-makers do not wish to accord primacy to the pursuit of happiness.
- They believe that it is inextricably linked to the pursuit of money and material well-being.
- Many economists think that money does buy happiness, at least till a certain level of income.
- In a 2010 study the Nobel Prize-winning economist Angus Deaton and the psychologist Daniel Kahneman took the Gallup poll data for about 500,000 residents in the US to show that happiness increases with income although there is an upper bound beyond which the income effect dissipates.
- Deaton and Kahneman also put a number to it: \$75,000.
- Anything that goes beyond \$75,000 doesn’t add anything to emotional well-being.
- Although the levels of “life-evaluation” or life satisfaction increased with levels of income even beyond this point, according to the authors.



Conclusion and Way Ahead

- Various World Happiness Reports indicate that the variation in well-being as measured by happiness indices is well explained by economic variables like GDP.
- The pursuit of happiness, at least for the developing world, lies in the pursuit of wealth and material well-being.
- So, for a long time, developing nations have rightly looked up to economically thriving nations. GNP and GDP were major goals for these nations.
- However, now more and more developing nations such as Bhutan are looking for a model of nations that promote citizens’ subjective well-being.
- Just as many developing nations used to look up to the United States and other economic powerhouses, many nations, including economically developed nations (e.g., Japan, South Korea), are now looking up to Denmark and other happy societies.



- In conclusion it can be said that an ideal society is a society where citizens feel happy, feel satisfied, and find their lives to be meaningful.
- Self-reported well-being helps to evaluate the effectiveness of certain public policies.
- It also helps in monitoring citizens' subjective perspective on how well they are doing and how well a society as a whole is doing.
- Citizens' well-being should be assessed periodically using various measures, ranging from
 - ✓ global life satisfaction and happiness to
 - ✓ domain-specific satisfaction to
 - ✓ stress and pain.
- The periodical recording (e.g., monthly, quarterly) of citizens' well-being will allow policy makers and researchers to test empirically whether a certain policy had an intended effect.
- It will also help in gauging whether a society is making progress toward its ideal.





will be released on 20th April 2021

Features

- Comprehensive coverage of International Relations, Internal Security, Art and Culture, Social Issues and Economics from all relevant sources such as The Hindu, Indian Express, PIB, AIR, RSTV, Livemint etc.
- News and events have been segregated and clubbed category-wise for better understanding and revision.
- Important points and keywords are highlighted for quick revision, students can easily revise whole current affairs in a day.
- Brief background has been provided for better connectivity with the current events.
- Maps of important regions have been covered to tackle mapping related questions in prelims.
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SHORT NEWS ARTICLES

GENERAL STUDIES-I

Matua Community

Context

- Recently, PM Modi met with Binapani Devi, popularly known as 'Boro Ma' and matriarch of the theMatua community,

About

- Matuas are Namasudras, a Scheduled Caste group.
- The term "Matua" refers simultaneously to a community (sampradāya), a religion (dharma), and a movement (āndolan).
- The MatuaMahasangha, a religious reforms movement and a sect, was formed by Harichand Thakur in East Bengal in the mid-1800s.
- Harichand's grandson P R Thakur established West Bengal's Thakurnagar as headquarters of the Matua sect after 1947.

Namasudra

- Namasudra, also known as Namassej or Namassut, is an avarna community originating from southern and central Bengal.
- The community was earlier known as Chandala or Chandal, a term usually considered as a slur.
- They were traditionally engaged in cultivation and as boatmen.
- They lived outside the four-tier ritual varna system and thus were outcastes.

Prabuddha Bharat Journal

Context

- Recently, PM Modi addressed the 125th anniversary celebrations of the 'PrabuddhaBharata' journal.

About

- 'PrabuddhaBharata' is a monthly journal of the Ramakrishna Order which was started by Swami Vivekananda.
- It has been in publication since 1896 and carries articles on social sciences and humanities comprising historical, psychological, cultural and social sciences themes.
- PrabuddhaBharata' is regarded as a significant medium for spreading the message of India's ancient spiritual wisdom.
- Several prominent people such as BalGangadharTilak, Sri Aurobindo, NetajiSubhas Chandra Sister Nivedita and the first Vice President of India SarvepalliRadhakrishnan have contributed their writings towards the journal in the fields of history, psychology, social issues, Indian culture etc.

Kuruba Community

Context

- Recently, members of the Kuruba community, carried out a massive rally in the city urging the State government to recommend to the Centre inclusion of the Kuruba community in the ST list.

About

- Kuruba, is a Hindu caste native to the Indian state of Karnataka, Tamil Nadu, Andhra Pradesh and Telangana.
- They are the third-largest caste group in Karnataka.
- Traditionally, they were shepherds, militiamen from the hills, armed vassals, or postmen.
- They practiced sheep/goat and cattle pastoralism, in that they either herded exclusively sheep, or a mixed herd of sheep and goats, or cattle

- Kurumas or Kurubas founded the Sangama dynasty, the founding dynasty of the Vijayanagara Empire.
- Although the Kurubas are traditionally Saivites, they worship a variety of deities.
- Mailara, Mallanna, Mallikarjuna, Vitthal (in his original Shiva form) and Beerappa, who all are forms of Shiva, and Yellamma are some of the important gods of Kurubas

Kinnal Craft

Context

- Kinnal art, awarded a GI tag in 2012, is enjoying a resurgence powered by an artisan's Instagram page.

About

- Kinnal Craft or Kinhal Craft is a traditional wooden craft local to the town of Kinhal, or Kinnal, in Koppal District, North Karnataka.
- Kinhal was once a flourishing centre for crafts, the most well-known being carvings in wood.
- The famous mural paintings in the Pampapateshwara Temple, and the intricate work on the wooden chariot at Hampi, are said to be the work of the ancestors of the Kinhal artisans of today.

Method

- The artisans are called chitragara.
- Lightweight wood is used for the toys.
- The paste used for joining the various parts is made of tamarind seeds and pebbles.
- Jute rags, soaked, slivered into pieces, dried, powdered, and mixed with saw dust and tamarind seed paste is made into kitta.
- A mixture of pebble powder paste with liquid gum is used for embossing the ornamentation and jewellery on the body of the figure.
- Once the components of the figure are assembled, kitta is applied by hand all over, and small pieces of cotton are stuck on it with the tamarind paste.
- Over this is applied the pebble paste which forms the base for the application of paint.

Koch Rajbongshish

Context

- Recently, the Union Home Minister Amit Shah addressed the Koch Rajbongshis.

About

- The Koch Rajbongshis are a community that traces its roots to the Kamata kingdom, which comprised parts of Assam, West Bengal and adjoining territories.
- In the medieval period, the community was dominant and ruled their territory of Kamatapur, which comprised a large part of Bangladesh, West Bengal, Bihar and India's north-east.
- After Independence, the princely state of Cooch Behar became part of West Bengal.
- Today, Koch Rajbongshis are found in Assam, Meghalaya, West Bengal and Bihar, and in Bangladesh, Nepal and some parts of Bhutan.

A number of organisations representing the community, mostly based in West Bengal, have been demanding a separate Kamatapur state consisting of North Bengal and parts of lower Assam. There is also a militant outfit, Kamatapur Liberation Organisation.

Pagri Sambhal Movement

Context

- As part of the ongoing farmers' protest, the Samyukta Kisan Morcha (SKM) celebrated February 23 as 'Pagri Sambhal Diwas'.

About

- Pagri Sambhaal Jatta was a successful farm agitation that forced the British government to repeal three laws related to agriculture back in 1907.

- Bhagat Singh's uncle Ajit Singh was the force behind this agitation, and he wanted to channel people's anger over the farm laws to topple the colonial government.
- The three farm-related acts at the centre of the storm in 1907 were the Punjab Land Alienation Act 1900, the Punjab Land Colonisation Act 1906 and the Doab Bari Act.
- These acts would reduce farmers from owners to contractors of land, and gave the British government the right to take back the allotted land if the farmer even touched a tree in his field without permission.

Bharat Mata Society

- Amid resentment against the laws, Bhagat Singh's father Kishan Singh and uncle Ajit Singh, with their revolutionary friend Ghasita Ram, formed Bharat Mata Society. Lala Lajpat Rai also joined the movement.
- The aim was to mobilise this unrest into a revolt against the British government.
- 'Pagrhisambhaal oh Jatta', which became the anthem of the agitation.

Nature of agitation

- The agitation couldn't remain non-violent.
- Ajit Singh was booked for sedition after his speech at a public meeting in Rawalpindi on April 21, 1921. Violence erupted soon afterwards.
- There were riots in Rawalpindi, Gujranwala, Lahore, etc. British personnel were manhandled, mud was flung at them, offices and churches were burnt, telegraph poles and wires cut.

Aftermath

- On sensing the popular resentment, the British made minor amendment in the laws.

POLITY

Census 2021 Postponed

Context

- The Centre is on track to push the 2021 Census to 2022 on account of the country's continuing preoccupation with the COVID-19 pandemic.

Details

- The Census exercise was to have been conducted in two phases — **House Listing and Housing Census** from April to September 2020 and **Population Enumeration** from February 9 to February 28, 2021.
- The first phase of the Census and the updating of the National Population Register (NPR) were initially to be rolled out in some States on April 1, 2020, but were postponed due to the pandemic.

Census of India

- The decennial Census of India has been **conducted 15 times, as of 2011**.
- While it has been undertaken every 10 years, beginning in 1872 under British Viceroy Lord Mayo, the first complete census was taken in 1881.
- Post 1949, it has been conducted by the **Registrar General and Census Commissioner of India** under the Ministry of Home Affairs, Government of India.
- All the censuses since 1951 were conducted under the **1948 Census of India Act**. The last census was held in 2011, whilst the next will be held in 2021.

Quota to Economically Weaker Sections (EWS)

Context

- The Telangana government will implement 10 % reservation to economically weaker sections in education and employment.

The Constitution (One Hundred and Third Amendment) Act 2019

- The Constitution (One Hundred and Third Amendment) Act 2019 passed by the Parliament of India enables the State to provide reservation to the Economically Weaker Sections (EWS) of the society.

- Whether or not to provide reservation to the Economically Weaker Sections (EWS) of the society for appointment in State Government jobs and for admission to State Government educational institutions, as per provisions of the newly inserted Articles 15(6) and 16(6) of the constitution, is to be decided by the concerned State Government.
- 10% reservation under Economically Weaker Section (EWS) category is applicable to those persons who are not covered under the existing scheme of reservations for the Scheduled Castes, the Scheduled Tribes and the Socially and Educationally Backward Classes.
- No relaxation in age, number of attempts, fees etc. is available to such candidates as on date.

Merger of J&K cadre with AGMUT

Context

- The Rajya Sabha passed the Jammu and Kashmir Reorganisation (Amendment) Bill to merge the Jammu and Kashmir cadre of the IAS and IPS with the Arunachal Pradesh, Goa, Mizoram, and Union Territory (AGMUT) cadre.

Details

- The members of the Indian Administrative Service (IAS), Indian Police Service and Indian Forest Service for the existing cadre of J&K shall be borne and become part of the Arunachal Pradesh Goa Mizoram Union Territory cadre.
- All future allocations of All India Services officers for the Union Territory of J&K and the UT of Ladakh shall be made to AGMUT cadres for which necessary modifications may be made in corresponding cadre allocation rules by the Central government.
- The J&K Reorganisation Act, 2019 had said officers belonging to the IAS, IPS and IFoS in the erstwhile State of Jammu and Kashmir "shall continue to function on the existing cadres," till the Lieutenant Governor of J&K determines the final allocation of such officers between J&K and Ladakh.
- A year after the reorganisation of J&K, the cadre allocation was yet to be completed. All new recruits will be allocated the AGMUT cadre, the original Act said.



Duverger's curse

About Duverger's Law

- Duverger's Law, theorised by French sociologist Maurice Duverger, states that **single-ballot plurality-rule elections** (such as first-past-the-post) structured within **single-member districts** tend to favour a **two-party system**.
- In the first-past-the-post system, the candidate winning the highest vote share in a constituency becomes the winner. And the **electorates often choose candidates who are most likely to win**.
- This mentality of the voters certainly **affects the prospect of the third party/alliance**.
- Stanford political scientist **Gary W. Cox modernised Duverger's Law** and made it more operational in his 2002 book titled **Making Votes Count**.
- Duverger's Law is criticised by some experts as the first-past-the-post system of voting has **no tendency to produce two-party politics** outside the U.S.
- In fact, **India is often regarded as an exception to this law at the national level**, but not at the district level.

President's Rule

Context

- The Union Cabinet approved a **proposal by the Home Ministry** to **dissolve the Puducherry Assembly** and impose President's Rule in the Union Territory.

Details

- The decision came days after the Congress-led government in the Union Territory **lost power during a vote of confidence**.
- The decision was taken as **no party came forward to stake claim** to form the government following the resignation of Chief Minister V. Narayanasamy.
- After the President's assent, the Assembly will get dissolved.
- The model code of conduct was **expected to come into effect soon after the Election Commission** announced the dates for elections there, along with four States.

Fourteenth Amendment of the Constitution of India

- The Fourteenth Amendment of the Constitution of India, officially known as **The Constitution (Fourteenth Amendment) Act, 1962**, incorporated Pondicherry (now Puducherry) as the ninth Union territory of India.
- It also gave Parliament the authority to create by **law, Legislatures and Councils of Ministers** for the **Union territories of Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Puducherry**.
- The French establishments of **Pondicherry, Karikal, Mahé and Yanam** became territories of the Indian Union on 16 August 1962, with the ratification of the **Treaty of Cession by India and France**.

About President's Rule

- President's Rule refers to the suspension of a state government and the imposition of direct rule of the Centre.
- The central government takes direct control of the state in question and the Governor becomes its constitutional head.
- The Vidhan Sabha is either dissolved or prorogued.

Article 356: It gives the President of India the power to **impose this rule on a state on the advice** of the Union Council of Ministers.

There are some conditions that the President has to consider before imposing the rule:

- If the President is satisfied that a situation has arisen in which the government of the state cannot be carried on in accordance with the provisions of the Constitution.
- The state government is unable to elect a leader as chief minister within a time prescribed by the Governor of that state.
- There's a breakdown of a coalition leading to the chief minister having a minority support in the House, and the CM fails to prove majority in the given period of time.
- Loss of majority in the Assembly due to a vote of no-confidence in the House.
- Elections postponed on account of situations like natural disasters, war or epidemic.

ADR Analysis

Context

- The Association for Democratic Reforms in its latest analysis has said that the contribution reports of **just 3.39%, or 78 of the overall 2,301 registered unrecognised parties** are available in the **public domain for the financial year of 2018-19**.

Details

- Unrecognised political parties are either **newly registered or they have not secured a sufficient percentage** of votes in the Assembly or General Elections to become a state party.
- The parties that fall under this category also may have **never contested the elections after being registered with the Election Commission of India**.
- The ADR report said 2,301 or 97.50% of registered



groups are unrecognised parties.

- The **number of these registered but unrecognised parties** has increased two fold in the last decade.
- During FY 2017-'18, only 39 or **1.69% of the total registered unrecognised parties** submitted their contribution reports before the due date while in FY 2018-19, only 1.65% or 38 parties submitted their contribution reports on time.
- India's seven national parties have received Rs 3,749.37 crore in the 2018-'19 financial year with **67% of it coming from "unknown sources" that cannot be traced.**

Breach of Privilege

Context

- A BJP MP issued a breach of privilege notice against Trinamool Congress (TMC) MP Mahua Moitra in the Lok Sabha for the TMC MP's remarks against a former Chief Justice of India.

Details

- While speaking on the **Motion of Thanks to the President's address**, she has cast some aspersions with respect to the conduct of a judge.
- The question is **whether the conduct of a judge can be discussed on the floor of the House or not.**

Privileges with Parliament

- **Article 105** and **Article 194** grant privileges or advantages to the members of the parliament so that they can perform their duties or can function properly without any hindrances. Such privileges are granted as they are needed for democratic functioning.
- Privileges mentioned in the constitution:
 - Freedom of speech and publication under parliamentary authority
 - Parliament has the power to make its own rules but this power is subjected to the provisions of the Constitution.
 - Internal independence should exist without the interference of any outside party or person.
 - Right to exclude strangers from its proceedings and hold secret sessions
 - Right to prohibit the publication of its reporters and proceedings
 - Right to regulate internal proceedings
 - Right to punish members or outsiders for contempt
- **Article 143** confers the power on the President to consult the Supreme Court if at any time it appears to the President that a question of fact or a law arises or may arise in future.

National Commission for Scheduled Castes

Context

- Vijay Sampla took charge as chairman of the National Commission for Scheduled Castes (NCSC), a post that was vacant since May 2020.

About the Commission

- The National Commission for Scheduled Castes is a constitutional **body** established with a view to provide **safeguards against the exploitation of Scheduled Castes and Anglo Indian communities** to promote and protect their social, educational, economic and cultural interests, special provisions were made in the Constitution. **Article 338** of the Indian constitution deals with the National Commission for Scheduled Castes. **Article 338 A** deals with the National Commission for Scheduled tribes.
- The following are the functions of the commission:
 - To **investigate and monitor all matters** relating to the safeguards provided for the Scheduled Castes
 - To **inquire into specific complaints** with respect to the **deprivation of rights and safeguards of the Scheduled Castes**
 - To participate and advise on the planning process of **socio-economic development of the Scheduled Castes** and to **evaluate the progress** of their development under the Union and any State

- To **present to the President**, annually and at such other times as the Commission may deem fit, reports upon the working of those safeguards

NITI Aayog

Context

- Prime Minister Shri Narendra Modi will chair the sixth meeting of the Governing Council of NITI Aayog on 20th February 2021 via video conferencing.
- The agenda of the meeting includes deliberations on agriculture, infrastructure, manufacturing, human resource development, service delivery at grassroots level and health & nutrition.

About NITI Aayog

- The NITI Aayog is a **policy think tank** of the Government of India, established with the aim to achieve **sustainable development goals** with **cooperative federalism**.
- Its initiatives include "**15-year road map**", "**7-year vision, strategy, and action plan**", **AMRUT**, **Digital India**, **Atal Innovation Mission**, **Indices Measuring States' Performance in Health, Education and Water Management**.
- NITI Aayog has taken initiative on Blockchain usages in E-governance and has conceptualized the tech stack as '**IndiaChain**'.
- The NITI Aayog comprises the following:
 - The **Prime Minister** as the Chairperson.
 - A **Governing Council** composed of Chief Ministers of all the States and Union territories with Legislatures and lieutenant governors of Union Territories(except Delhi and Puducherry)
 - **Regional Councils** composed of Chief Ministers of States and Lt. Governors of Union Territories in the region to address specific issues and contingencies impacting more than one state or a region.
 - **Full-time organizational framework** composed of a Vice-Chairperson, four full-time members, two part-time members, four ex-officio members of the Union Council of Ministers, a Chief Executive Officer who looks after administration, and a secretariat.
 - **Experts** and **specialists** in various fields.

Sustainable Development of Little Andaman Island - Vision Document

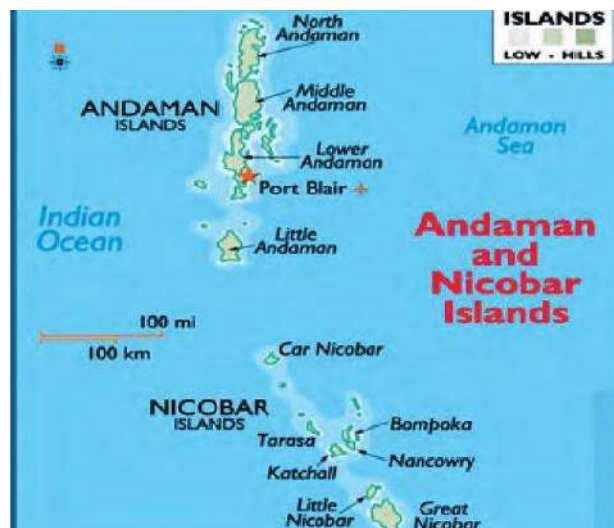
Context

- A plan for the sustainable and holistic development of the 680 sq km, fragile **Little Andaman Island** in the Andaman and Nicobar group has raised alarm among conservationists.

Details

- The '**Sustainable Development of Little Andaman Island - Vision Document**', is the NITI Aayog's proposal to leverage the strategic location and natural features of the island.
- This will be done by building a **new greenfield coastal city** there that will be developed as a **free trade zone** and will compete with **Singapore and Hong Kong**.
- The proposal is pivoted along three development anchors and zones.
- Zone 1 – spread over 102 sq km along the east coast of Little Andaman – will be the **financial district and media city** and will include an aerocity, and a tourism and hospital district.
- Spread over 85 sq km of pristine forest, Zone 2, the leisure zone, will have a **film city**, a residential district and a tourism SEZ.

Map:



Delhi Government L-G Powers

Context

- The Ministry of Home Affairs (MHA) is all set to introduce a legislation in the Budget session of the Parliament to amend a 1991 Act pertaining to the powers and functions of the Delhi government and the Lieutenant Governor.
- The Bill is likely to clearly define the powers of the L-G and the Delhi Government on the lines of the Supreme Court judgment of February 2019. It is likely to give more teeth to the L-G's office.

2019 verdict:

- In the February 14, 2019 verdict, the court upheld as "legal" the MHA's May 21 and July 23, 2015 notification authorising the L-G to exercise powers in relation to services and directing the Anti-Corruption Branch (ACB) police not to take cognisance of offences against Central government officials.
- The apex court confirmed the Delhi High Court's finding that the ACB's jurisdiction is confined to Delhi officials and statutory bodies and does not extend to Central government officials.

MHA rules on J&K UT

- In case of difference of opinion between the L-G and a Minister when no agreement could be reached even after a month, the "decision of the Lieutenant Governor shall be deemed to have been accepted by the Council of Ministers."

INTERNATIONAL RELATIONS

Chabahar port

Context

- In its latest push to develop Iran's Chabahar port project, India handed over two 140-tonne cranes for loading and unloading equipment to the Iranian government.

Details

- The cranes, part of a full consignment of six Mobile Harbour Cranes (MHC) worth about \$25million were sourced from Italy and formally released at a ceremony at Chabahar's Shahid Beheshti port after official talks between India and Iran.
- India's plans to invest further in the port project are seen as an indicator that the government expects some easing up in U.S. sanctions in the upcoming months.

- The crane's delivery comes after several **delays due to the impact of U.S. sanctions** on various parts of the Chabahar project.

Chabahar Port

- Chabahar Port is a seaport in Chabahar located in **southeastern Iran, on the Gulf of Oman**.
- It serves as **Iran's only oceanic port**, and consists of two separate ports named **Shahid Kalantari and Shahid Beheshti**, each of which has five berths.
- India and Iran first agreed to plans to further develop Shahid Beheshti port in **2003**, but did not do so on account of sanctions against Iran.
- In May 2016, India and Iran signed a bilateral agreement in which **India would refurbish one of the berths at Shahid Beheshti port**.
- The port is partly intended to provide an **alternative for trade between India and Afghanistan** as it is 800 kilometers closer to the border of Afghanistan than Pakistan's Karachi port.



New START Nuclear Treaty

Context

- U.S. President Joe Biden's administration extended the New START nuclear treaty with Russia by five years.

About New START Nuclear Treaty

- New START (Strategic Arms Reduction Treaty) is a **nuclear arms reduction treaty** between the **United States** and the **Russian Federation** with the formal name of Measures for the Further Reduction and Limitation of Strategic Offensive Arms.
- It was signed on 8 April 2010 in **Prague**, and, after ratification, entered into force on 5 February 2011.
- It is **expected to last until 5 February 2026**, having been extended in 2021.
- The treaty calls for **halving the number of strategic nuclear missile launchers**.
- A new inspection and verification regime will be established, replacing the **SORT mechanism**. It does not limit the number of operationally inactive nuclear warheads that can be stockpiled, a number in the high thousands.

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Yemen Civil War

Context

- President Joe Biden is ending U.S. military support for the war by its Saudi allies in Yemen. This is a reversal of former President Donald Trump's policy of providing logistical assistance and selling advanced weaponry.

About Yemen Civil War

- The Yemeni Civil War is an ongoing multi-sided civil war that began in late 2014 mainly between the **Abdrabbuh Mansur Hadi-led Yemeni government** and the **Houthi armed movement**, along with their supporters and allies.
- The civil war began in September 2014 when **Houthi forces took over the capital city Sana'a**, which was followed by a rapid Houthi takeover of the government.
- A **coalition led by Saudi Arabia** launched military operations by using air strikes to restore the former Yemeni government.
- Although there was **no direct intervention by Iran**, who support the **Houthis**, the conflict has been widely seen as an extension of the **Iran-Saudi Arabia proxy conflict** and as a means to combat Iranian influence in the region.
- Houthi forces currently control the **capital Sana'a** and **all of North Yemen except Ma'rib Governorate**.
- The international community has sharply **condemned the Saudi Arabian-led bombing campaign**, which has included widespread bombing of civilian areas.
- The United States provided intelligence and logistical support for the Saudi-led campaign.



Nord Stream 2 pipeline

Context

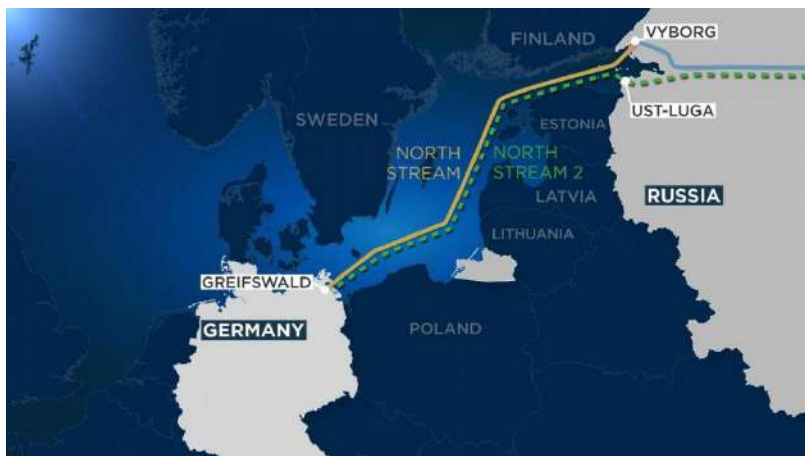
- In a development that could ratchet up tensions between the **United States and Germany**, Nord Stream 2 pipeline work has been resumed.

Details

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

Controversy

- Nord Stream 2 has drawn **criticism from the US**, where both the Democratic and Republican parties believe that the project would **increase Europe's dependence on Russia for natural gas**, thus boldening its President Vladimir Putin.
- Currently, **EU countries already rely on Russia for 40%** of their gas needs.
- The project has also **irked Ukraine**, whose ties with Russia have seriously deteriorated in the aftermath of the Crimean conflict in 2014.
- **France** has also expressed its opposition to the project, as have some others in Eastern Europe.



Chinese Energy project in Sri Lanka

Context

- Sri Lanka's recent decision to pull out of the **East Container Terminal (ECT)** deal with **India and Japan** is not the only challenge to New Delhi's interests emerging this year.
- Sri Lanka cleared a **Chinese energy project** in three islands off Jaffna peninsula that are barely **50 km from the Tamil Nadu coast**.

Details

- The Cabinet approved a proposal to involve Sino-Solar Etechwin Joint Venture in China to **install 'hybrid renewable energy systems'** in **Nainativu, Delft or Neduntheevu, and Analaitivu**, located in the **Palk Bay**.
- The islands are connected to the **Jaffna peninsula** by a **limited ferry service**, managed mostly by the **Sri Lankan Navy**.
- **Delft island** is one of the closest points to India from northern Sri Lanka.



Transatlantic Alliance

Context

- President Joe Biden declared the **"transatlantic alliance is back"** in a powerful speech seeking to **reestablish the U.S. as leader of the West** against what he called a global assault on democracy.

Transatlantic Free Trade Area

- A Transatlantic Free Trade Agreement (TAFTA) is a proposal to create a free-trade agreement covering **Europe and North America**, on both sides of the Atlantic Ocean. Such proposals have been made since the 1990s.
- Since 2013 an agreement between the **United States and the European Union (EU)** has been under negotiation: the **Transatlantic Trade and Investment Partnership**.
- If an agreement is reached and ratified on both sides, it could at least in theory be **expanded to include the European Free Trade Association (EFTA)**.
- Canada and Mexico both have free trade agreements with both the EU and EFTA.

Trade and Defence Pacts with Mauritius

Context

- India and Mauritius signed a **\$100 million Defence Line of Credit agreement**. It was a part of several understandings, including the Comprehensive Economic Cooperation and Partnership Agreement (CECPA) that was signed between the two countries.

Details

- The signing of Comprehensive Economic Cooperation and Partnership Agreement is **India's first such agreement with an African country**. This will help focus on **post pandemic economic recovery**.
- Using the new framework under the CECPA, India and Mauritius would provide **preferential access to a number of items** like surgical equipment, medicine, and textile products that would cater to market requirements on both sides.
- Just to illustrate some of the benefits, Mauritius will get preferential access for export of 40,000 tonnes of sugar into India at an early time frame.

BRICS summit

Context

- China's President Xi Jinping may visit India in the second half of this year to attend the BRICS (Brazil, Russia, India, China, South Africa) leaders' meeting.

Details

- China expressed its "support" for India hosting this year's meeting, and the meet would not be impacted by the border crisis.
- Expectations are that by the second half of the year, the summit will not have to be held virtually.
- In recent years, BRICS has seen greater solidarity, deeper practical cooperation, and greater influence.

BRICS

- BRICS is the acronym coined to associate five major emerging economies: **Brazil, Russia, India, China, and South Africa**.
- Since **2009**, the governments of the BRICS states have met annually at formal summits.
- Originally the first four were grouped as "**BRIC**" (or "the BRICs") before the induction of South Africa in 2010.
- The BRICS have an estimated total population of about **26.656% of the world land surface** and **41.53% of the world population**.
- Members of G20, as of 2018, these five states had a combined nominal GDP of US\$19.6 trillion, about 23.2% of the gross world product



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International Criminal Court

Context

- The International Criminal Court (ICC) convicted a former commander in the notorious Ugandan rebel group the **Lord's Resistance Army** of dozens of war crimes and crimes against humanity ranging from multiple murders to forced marriages.

About ICC

- It is an intergovernmental organization and international tribunal that sits in The Hague, Netherlands.
- The ICC is the first and only permanent international court with jurisdiction to prosecute individuals for the international crimes of genocide, crimes against humanity, war crimes, and the crime of aggression.
- It is intended to complement existing national judicial systems and it may therefore exercise its jurisdiction only when national courts are unwilling or unable to prosecute criminals.
- The ICC lacks universal territorial jurisdiction, and may only investigate and prosecute crimes committed within member states, crimes committed by nationals of member states, or crimes in situations referred to the Court by the United Nations Security Council.
- The ICC began operations on 1 July 2002, upon the entry into force of the Rome Statute.
- Forty-one additional states have neither signed nor acceded to the Rome Statute. Some of them, including China and India, are critical of the Court.

U.N. Human Rights Council

Context

- The Biden administration is set to announce that it will reengage with the U.N. Human Rights Council (UNHRC) that former President Donald Trump withdrew from almost three years ago, U.S. officials.

Details

- Trump pulled out of the world body's main human rights agency in 2018 due to its disproportionate focus on Israel as well as the number of authoritarian countries among its members and because it failed to meet an extensive list of reforms demanded by then-U.S. Ambassador to the United Nations Nikki Haley.
- In addition to the council's persistent focus on Israel, the Trump administration took issue with the body's membership, which currently includes China, Cuba, Eritrea, Russia and Venezuela, all of which have been accused of human rights abuses.

About UNHRC

- It is a United Nations body whose mission is to **promote and protect human rights** around the world.
- The UNHRC has **47 members elected** for staggered **three-year terms** on a regional group basis.
- The headquarters of UNHRC is in **Geneva, Switzerland**.
- The UNHRC investigates allegations of **breaches of human rights in United Nations member states**, and addresses important thematic human rights issues such as freedom of association and assembly, freedom of expression, freedom of belief and religion, women's rights, LGBT rights, and the rights of racial and ethnic minorities.
- The UNHRC was established by the UN General Assembly on 15 March 2006 to replace the **UN Commission on Human Rights** (UNCHR) that had been strongly criticised for allowing countries with **poor human rights records to be members**.

UN Committee for World Food Security

Context

- The **first-ever voluntary guidelines** on food systems and nutrition meant to end hunger and malnutrition were endorsed by members of the **Committee on World Food Security (CFS) February 11, 2021**.

CFS

- CFS is an international and intergovernmental platform for stakeholders to **work towards ensuring food security and nutrition** for all.
- It is hosted and co-funded by the **United Nations Food and Agriculture Organization (FAO)**.

Guidelines

They are structured around seven focus areas:

- Transparent, democratic and accountable governance
- Sustainable food supply chains to achieve healthy diets in the context of economic, social and environmental sustainability and climate change
- Equal and equitable access to healthy diets through sustainable food systems
- Food safety across sustainable food systems
- People-centred nutrition knowledge, education and information
- Gender equality and women's empowerment across food systems
- Resilient food systems in humanitarian contexts

FAO

- It is a **specialized agency of the United Nations** that leads international efforts to defeat hunger and improve nutrition and food security.
- Its Latin motto, fiat panis, translates to "**let there be bread**".
- It was founded in October **1945**.
- The FAO is **headquartered in Rome, Italy** and maintains **regional and field offices** around the world, operating in over 130 countries.
- It **helps governments and development agencies** coordinate their activities to improve and develop agriculture, forestry, fisheries, and land and water resources.
- It also conducts **research, provides technical assistance** to projects, operates **educational and training programs**, and collects data on agricultural output, production, and development.

UN Capital Development Fund

Context

- The UN Capital Development Fund has appointed Indian-origin investment and development banker Preeti Sinha as its Executive Secretary, whose focus will be on providing microfinance assistance to women, youth, small and medium-sized enterprises in under-served communities.

About the Fund

- Established in **1966**, the **New York-headquartered** organisation provides microfinance access to **Least Developed Countries (LDCs)**, with the mandate to unlock the full potential of public and private finance.



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African Union summit

Context

- The 34th ordinary summit of the African Union was held at its headquarters at **Addis Ababa** on 7 and 8 February 2021.

Details

- The **regional rotation of the chair** of the AU took place. South African President, Cyril Ramaphosa, handed over the chairmanship to the President of the Democratic Republic of Congo (DRC), Felix-Antoine Tshisekedi Tshilombo.
- The **themes of the summits** are the moral compass that the AU provides to Africa.
- The theme of the summit was “**Arts, Culture, and Heritage: Levers for Building the Africa We Want.**”
- The previous summit in 2020 had “**Silencing the Guns: Creating Conducive Conditions for Africa’s Development**” as the theme, while in 2019, it was “**Year of Refugees, Returnees, and Internally Displaced Persons: Towards Durable Solutions to Forced Displacement in Africa.**”
- The 2021 theme is inspired by **Agenda 2063** — a shared framework for inclusive growth and sustainable Development and Aspiration 5, which believes that an Africa with a strong cultural identity, values and ethics will strengthen it.

About African Union

- The African Union (AU) is a **continental union** consisting of **55 member states** located on the continent of Africa.
- The AU was announced in the **Sirte Declaration in Sirte, Libya**, on 9 September 1999.
- The bloc was founded on 26 May 2001 in Addis Ababa, Ethiopia, and launched on 9 July 2002 in **Durban, South Africa**.
- The intention of the AU was to **replace the Organisation of African Unity (OAU)**, established on **25 May 1963 in Addis Ababa** by 32 signatory governments; the OAU was disbanded on 9 July 2002.
- The AU's secretariat, the African Union Commission, is based in **Addis Ababa**.
- The African Union has **over 1.3 billion people** and an area of **around 29 million km²** (11 million sq mi) and includes popular world landmarks, including the Sahara desert and the Nile river.

AGRICULTURE

APMCs and Agri infrastructure fund

Context

- Finance Minister Nirmala Sitharaman’s speech emphasised the government’s track record in **paying minimum support prices (MSP)** to farmers and the decision to allow State-run Agricultural Produce Marketing Committees (APMCs) to access the **Rs. 1 lakh crore Agriculture Infrastructure Fund (AIF)**.
- The AIF was created last year, as part of a COVID-19 stimulus package to **develop cold chain storage and other post-harvest management infrastructure**.

Agriculture Infrastructure Fund

- The Union Cabinet in July 2020 has approved a new **pan India Central Sector Scheme** called Agriculture Infrastructure Fund.
- The scheme shall provide a **medium - long term debt financing facility for investment** in viable projects for **post-harvest management Infrastructure** and **community farming assets** through interest subvention and financial support.

Benefits

- All loans under this financing facility will have interest subvention of 3% per annum up to a limit of Rs. 2 crore.
- Credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs. 2 crore.
- In case of FPOs the credit guarantee may be availed from the facility created under FPO promotion scheme of Department of Agriculture, Cooperation & Farmers Welfare (DACFW).

- Moratorium for repayment under this financing facility may vary subject to minimum of 6 months and maximum of 2 years.

Fishing Harbours

Context

- Five major fishing harbours will see substantial investments for **modernisation and development**. Kochi, Chennai, Visakhapatnam, Paradip and Petuaghat — will be developed as hubs of economic activity.
- There is also a plan to develop **inland fishing harbours** and **fish-landing centres** along the banks of rivers and waterways.

Fishing in India

- Fishing in India is a major industry employing **14.5 million people**.
- India ranks **second in aquaculture** and **third in fisheries production**.
- Fisheries contributes to **1.07% of the Total GDP of India**.
- According to the **National Fisheries Development Board** the Fisheries Industry generates an **export earnings of Rs 334.41 billion**.
- India has **7,516 kilometres (4,670 mi) of marine coastline**, 3,827 fishing villages and 1,914 traditional fish landing centers.
- India's **fresh water resources consist of 195,210 kilometres (121,300 mi) of rivers and canals**.

Pradhan Mantri Fasal Bima Yojana

Context

- The number of farmers' crop insurance claims that were rejected by insurance companies under the Centre's flagship **Pradhan Mantri Fasal Bima Yojana (PMFBY)** multiplied 10 times in just two years.

About the scheme

- The PMFBY will replace the existing two schemes **National Agricultural Insurance Scheme** as well as the **Modified NAIS**.
- Features:
 - There will be a uniform **premium of only 2%** to be paid by farmers for all **Kharif crops** and **1.5% for all Rabi crops**.
 - In case of annual **commercial and horticultural crops**, the premium to be paid by farmers will be only 5%.
 - There is **no upper limit on Government subsidy**.
 - Earlier, there was a provision of **capping the premium rate** which resulted in low claims being paid to farmers.
 - **Smartphones** will be used to capture and upload data of crop cutting to reduce the delays in claim payment to farmers. Remote sensing will be used to reduce the number of crop cutting experiments.
 - PMFBY is a replacement scheme of NAIS / MNAIS, there will be **exemption from Service Tax liability** of all the services involved in the implementation of the scheme.
 - It is estimated that the new scheme will ensure about **75-80 per cent of subsidy for the farmers in insurance premium**.



ECONOMY

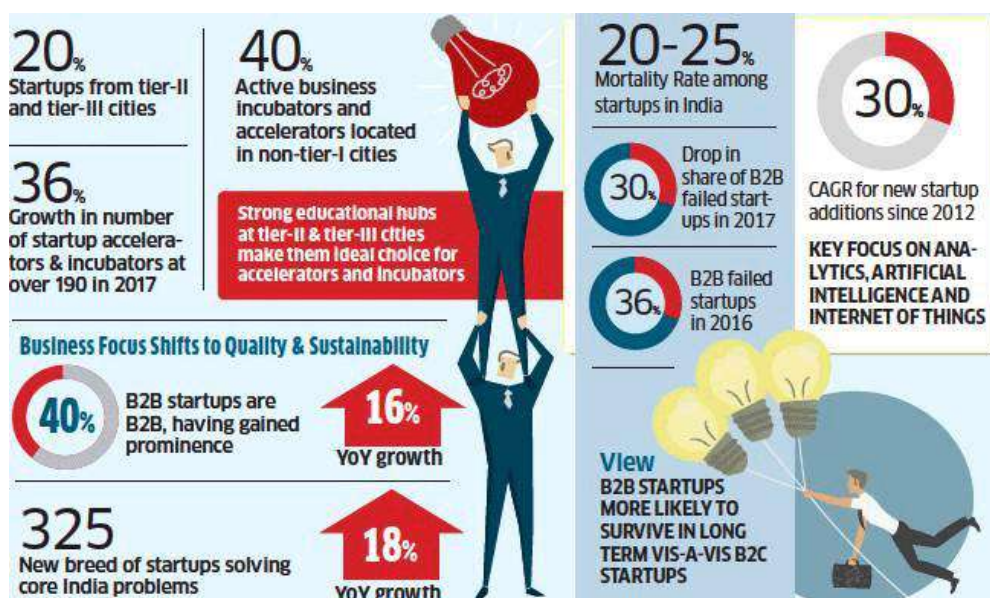
Tax Holiday for Start-ups

Context

- The Union Budget proposes to **extend tax holiday for start-ups** until March-end next year.
- It also proposes to extend the **capital gains exemption for investment** in start-ups by another year to encourage funding in the sector.

Startup India

- The campaign was first announced by Indian Prime Minister, Narendra Modi during his speech on 15 August 2015.
 - The action plan of this initiative is focussing on three areas:
 - Simplification and Handholding
 - Funding Support and Incentives
 - Industry-Academia Partnership and Incubation
- A startup defined as an entity that is:
 - headquartered in India,
 - which was opened less than 10 years ago, and
 - has an annual turnover less than ₹100 crore (US\$14 million).



Four-day work week

The proposal

- The proposed new labour codes could provide companies with the flexibility of four working days in a week, even as the working hours limit of 48 hours for a week will remain "sacrosanct".
- This implies that there will be longer working hours if the working days are reduced.

When and how will this be rolled out

- The Ministry of Labour and Employment is likely to complete the process to finalise the rules for four labour codes soon.
- The provision of flexibility to have reduced working days of four days in the labour code rules will mean that companies will not require prior government nod to enact it.
- The Labour Secretary clarified that having a reduced number of working days does not mean a cut in paid holidays.
- Therefore, when the new rules will provide flexibility of four working days, it would imply three paid holidays.
- The labour ministry had envisaged implementing the four labour codes from April 1 this year in one go.

Coastal belt's first CNG station

Context

- The Netravathi Service Station of Indian Oil Corporation Ltd (IOCL) at Adyar on Mangaluru-Bengaluru National Highway 75 became the **first station of the coastal belt** supplying CNG to private and commercial vehicles.

About CNG

- Compressed natural gas is a fuel that can be used in place of petrol (gasoline), diesel fuel, and liquefied petroleum gas (LPG).
- CNG combustion produces fewer undesirable gases than the aforementioned fuels.
- In comparison to other fuels, natural gas poses less of a threat in the event of a spill, because it is lighter than air and disperses quickly when released. Biomethane — refined biogas from anaerobic digestion or landfills — can be used.
- CNG is made by compressing natural gas, which is mainly composed of methane (CH₄), to less than 1% of the volume it occupies at standard atmospheric pressure.
- It is stored and distributed in hard containers at a pressure of 20–25 MPa (2,900–3,600 psi), usually in cylindrical or spherical shapes.

Migrant workers Survey

Context

- The lack of data on workers, which was evident during the COVID-19-induced lockdown in 2020, would be addressed by the **five all-India labour surveys being conducted by the Labour Bureau**.

Details

- The surveys on migrant and domestic workers, those employed by the transport sector and by professionals as well as the all-India quarterly establishment-based employment survey would be **completed in eight months**.
- He said the surveys would be **conducted using tablets**, making the compilation of data much faster than traditional methods.
- **Continuous process:** The co-chair of the expert group on labour surveys said the **surveys should be comparable and not one-time exercises**.

Securities Appellate Tribunal

Context

- The Securities Appellate Tribunal (SAT) has stayed the order passed by market regulator Sebi that had put a one-year ban on Future Retail Chairperson Kishore Biyani.

About the Tribunal

- Securities Appellate Tribunal is a **statutory body** established under the provisions of **Section 15K of the Securities and Exchange Board of India Act, 1992** to hear and to dispose appeals against orders passed by the **Securities and Exchange board of India** or by an adjudicating officer under the Act.
- **Composition of SAT:**
 - A Presiding Officer &
 - Two other members
- **Appointment:**
 - **Presiding Officer:** The Presiding officer of SAT shall be appointed by the Central Government in consultation with the Chief Justice of India or his nominee.
 - **Members:** The two members of SAT shall be appointed by the Central Government.
- **Qualifications of :**
 - **Presiding Officer:**
 - A sitting or retired judge of the supreme court or
 - A sitting or retired Chief Justice of the High Court or
 - A sitting or retired Judge of a High court, who has completed at least 7 years of service as a Judge in a High Court.
 - **Members:**
 - He is a person of ability, integrity and standing and
 - He has shown capacity in dealing with problems relating to the securities market and has qualification and experience of corporate law, Securities laws, Finance, economics or accountancy.

• Powers of SAT:

- Summoning and enforcing the attendance of any person and examine him on oath
- Requiring the discovery and production of documents
- Receiving evidence on affidavits
- Issuing commissions for the examination of witnesses or documents
- Reviewing its decisions
- Dismissing an application for default or deciding it ex-parte
- Setting aside any order or dismissal of any application for default or any order passed by it ex-parte

Digital Intelligence Unit

Context

- Amid rising instances of financial frauds and unsolicited messages, the **Telecom Ministry** would set up a nodal agency called '**Digital Intelligence Unit**' (DIU) for speedy investigation and resolution of such cases.

Details

- The main function of DIU will be to **coordinate with various LEAs [law enforcement agencies], financial institutions and telecom service providers** in investigating any fraudulent activity involving telecom resources.
- At License Service Area level, **Telecom Analytics for Fraud Management and Consumer Protection** systems will also be created.

International Energy Agency

Context

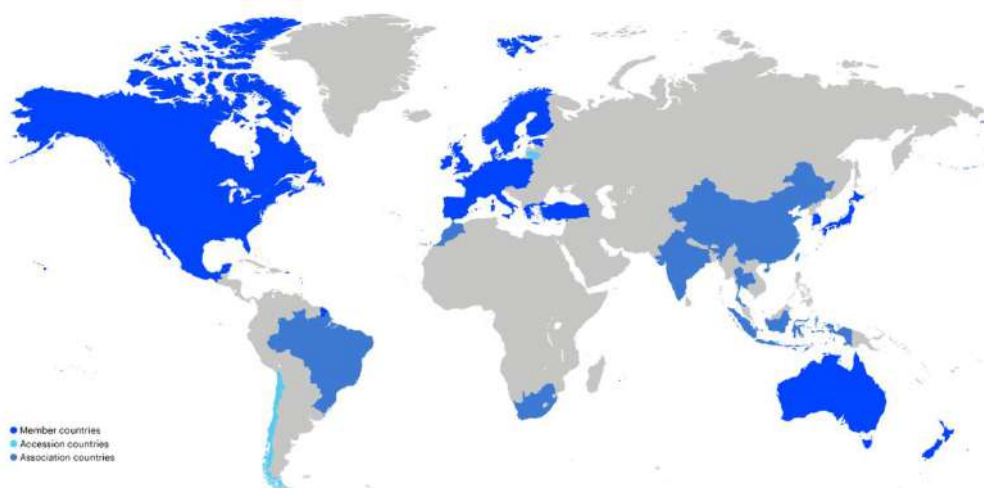
- International Energy Agency said that **India will make up the biggest share of energy demand growth** at 25% over the next two decades, as it overtakes the European Union as the **world's third-biggest energy consumer** by 2030.

Details

- India's energy consumption is expected to nearly double as the nation's gross domestic product (GDP) expands to an estimated \$8.6 trillion by 2040 under its current national policy scenario.
- India's growing energy needs will make it more reliant on fossil fuel imports as its domestic oil and gas production has been stagnant for years despite government policies to promote petroleum exploration and production and renewable energy.

About International Energy Agency

- The International Energy Agency is a **Paris-based autonomous intergovernmental organisation** established in the framework of the **Organisation for Economic Co-operation and Development (OECD)** in 1974 in the wake of the 1973 oil crisis.
- The IEA was **initially dedicated to responding to physical disruptions** in the supply of oil, as well as serving as an information source on statistics about the **international oil market and other energy sectors**.
- In response to the growing number of pledges by countries and companies around the world to limit their emissions to **net zero by 2050 or soon after**, the IEA announced in January 2021 that it would produce a **roadmap for the global energy sector to reach that goal**.



'Go Electric' Campaign

Context

- The Union Minister for Road Transport & Highways launched the "Go Electric" Campaign to spread awareness on the benefits of e-mobility and EV Charging Infrastructure as well as electric cooking in India.

Details

- Electric fuel is a major alternative for fossil fuels which have an **import bill of Rs. 8 lakh Crore**.
- When compared to conventional fuels the electric fuel has **low cost, reduced emissions and it is also indigenous**.
- Go Electric Campaign is an important initiative that would **help in reducing the import dependence of our country** in the coming years and would be an important step towards a cleaner and greener future.
- The campaign is aimed at **creating awareness at PAN-India level** and is expected to boost the **confidence of Electric Vehicle manufacturers**.
- Unveiling of the "Go Electric" logo which depicts the **evolution of the e-mobility ecosystem**.
- Bureau of Energy Efficiency (BEE)** under the aegis of the **Ministry of Power** has been mandated to undertake an **awareness drive** for promoting Public Charging, e-mobility & its ecosystem.
 - The mission of the Bureau of Energy Efficiency is to **"institutionalise" energy efficiency services**, enable delivery mechanisms in the country and provide leadership to energy efficiency in all sectors of the country.

SFURTI

Context

- Micro, Small and Medium Enterprises Minister Nitin Gadkari has inaugurated **50 artisan-based SFURTI clusters** spread over **18 States**.

About SFURTI (Scheme of Fund for Regeneration of Traditional Industries)

- The objectives of the scheme is to **organize the traditional industries and artisans** into clusters to make them **competitive and provide support** for their long term sustainability, sustained employment, to enhance **marketability** of products.
- The financial assistance provided for any specific project shall be subject to a **maximum of Rs 8 (eight) crore to support Soft, Hard and Thematic interventions**.
- Who Can Apply:**
- NGOs, institutions of the Central and State Governments and semi-Government institutions, field functionaries of State and Central Govt., Panchayati Raj institutions (PRIs), Private sector by forming cluster specific SPVs, Corporates and corporate Responsibility (CSR) foundations with expertise to undertake cluster development.

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1. Consider the following statements about Malayan Giant Squirrel:

1. It is one of the world's largest squirrel species that is endemic to peninsular India.
2. It is considered as the "forest health indicator species".
3. Slash-and-burn jhum cultivation contributes to destruction of its habitat.

Which of the statements given above is/are correct?

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

2. Consider the following statements about the monetary policy:

1. It involves management of money supply and interest rate.
2. It is the demand side economic policy used by the government to achieve macroeconomic objectives of growth and liquidity.
3. Open market operations, the reserve system and moral persuasion are monetary policy instruments.

Which of the statements given above is/are correct?

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

3. What is CO17, which sometimes appears in the news?

1. 3D printer
2. Variety of Cotton
3. Crypto currency
4. Malware

4. Consider the following statements:

1. Article 25 guarantees the freedom of conscience, the freedom to profess, practice and propagate religion to all citizens and foreigners.
2. Right to propagate grants the right to convert other persons to one's own religion.
3. States are empowered under the Seventh Schedule of the Constitution to enact local Freedom of Religion laws to exercise their civil powers and restore public order.

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

5. Which of the following dance forms is/are associated with Sikkim state?

1. Chyabrung

2. Maruni
3. Khukuri

Choose the correct answer using the given code given below:

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

6. What is CiX, which sometimes appears in the news?

- A. an indigenous mRNA vaccine candidate
- B. platform to foster Innovation in Urban Ecosystem
- C. mission to focus on strengthening infrastructure for vaccine development
- D. coalition for epidemic preparedness and innovations

7. With reference to the National Anti-profiteering Authority (NAA), consider the following statements:

1. It ensures that the benefits of reduction or lower taxes under the GST regime are passed onto the end consumers.
2. It is chaired by the Finance minister.

Which of the statements given above is/are correct?

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

8. Consider the following statements about the Meenakari Art form:

1. It is a type of embroidery.
2. The mughals introduced it into India.
3. Rajasthan and Gujarat are the most famous centre for Meenakari artifacts and jewelry.

Which of the above statements is/are correct?

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

9. Consider the following statements about the National Commission for Scheduled Castes (NCSC):

1. It is a constitutional body established to safeguards rights of Scheduled Castes and Anglo Indian communities.
2. Article 338 A of the Indian constitution deals with the National Commission for Scheduled Castes.
3. The president of India appoints the chairman of this commission.

4. Service condition and tenure of chairman and members of NCSC is determined by the president of India.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 and 3 only
(c) 1, 3 and 4 only (d) 1, 2, 3 and 4

10. Consider the following statement about the Krishna Devaraya:

1. He earned the title of Andhra Bhoja.
2. Portuguese travellers Fernao Nuniz visited the Vijayanagara Empire during his reign.
3. He was a celebrated poet and composed an epic Telugu poem Amuktamalyada.

Which of the statements given above is/are correct?

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

11. Consider the following statements about the Kelp forests:

1. This biome is characterized by coniferous forests consisting mostly of pines, spruces and larches.
2. These ecosystems are found only in temperate and polar coastal oceans.
3. It is one of the most productive and dynamic ecosystems on Earth.

Which of the statements given above is/are correct?

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

12. Consider the following statements about the Tholpavakoothu:

1. This shadow puppetry temple art form is prevalent in the regions of Kerala.
2. Tholpavakoothu performance is based on the stories of Indian epic, Ramayana.
3. This art form is accompanied by Chenda and Maddalam instruments.

Select the correct answer using the given below code:

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

13. Consider the following statements:

1. State Governments in India can borrow from both internal and external sources.
2. Public Debt in India includes Internal and External Debt incurred by the Central Government only.

Choose the correct answer:

- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) None of the above

14. Consider the following statements about the National e-Vidhan Application (NeVA) project:

1. This Mission Mode Project (MMP) is part of Digital India Programme.
2. The Ministry of Parliamentary Affairs (MoPA) is the 'Nodal Ministry' for its implementation.
3. Arunachal Assembly is the first in the country that has successfully implemented it.

Which of the statements given above is/are correct?

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

15. Consider the following statements about the Bio-Medical Waste Management Rules 2016:

1. It established a Bar-Code System for bags or containers containing bio-medical waste for disposal.
2. These rules are applicable to vaccination camps or any other healthcare activity.
3. These rules shall not apply to hazardous wastes and hazardous microorganisms.

Which of the statements given above is/are correct?

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

16. It is a checkpoint between India and Bangladesh on the Bangladesh-India border. It is the only land port in south Bengal. It is also the largest land customs station in Asia. It is

- A. Jogbani
B. Petrapole
C. Sunauli
D. Rupaidiha

17. Which of the following pairs is/are correct?

- | | |
|-------------------------|-------------------------|
| Joint military exercise | Participating countries |
| MALABAR | India-UK |
| Naseem-al-Bahr | India-Qatar |
| SPITTING COBRA | India- Australia |

Choose the correct answer using the code given below:

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

18. The Square Kilometre Array Observatory (SKAO) project, sometimes seen in news is related with

- A. world's largest radio telescope
- B. world's largest neutrino observatory
- C. world's largest visible-light telescope
- D. India's first dedicated multi wavelength space observatory.

19. Consider the following statements about the India Infrastructure Finance Company Limited (IIFCL):

- 1. It provides financial assistance to commercially viable public projects only.
- 2. It raises funds from domestic as well as external markets on the strength of government guarantees.

Which of the statements given above is/are correct?

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

20. Consider the following statements about the Electoral Trust:

- 1. It is a non-profit company registered under the Representation of People Act, 1951
- 2. Its objective is to bring transparency and sanity in the political party funding.
- 3. It can raise funds from both Indian citizens and non-citizens.

Which of the statements given above is/are correct?

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

21. With reference to the Prevention of Insults to National Honour Act, 1971, consider the following statements:

- 1. It penalises desecration of the Constitution and the National Anthem.
- 2. National Flag can be used as a drapery only in State funerals or armed forces or other para-military forces funerals
- 3. As per this act, flag shall be lowered into the grave but cannot be burnt in the pyre.

Which of the statements given above is/are correct?

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

22. What are Bentonite Sulphur, diammonium phosphate and single super phosphate (SSP), sometimes seen in the news?

- A. Nutraceuticals
- B. Fertilizers
- C. Weapon of chemical warfare
- D. Explosive chemicals

23. The funds under BADP are provided to the States as a 100% non-lapsable Special Central Assistance.

Which of the statements given above is/are correct?

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

24. With reference to the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP), consider the following statements

- 1. It is an initiative of the Ministry of Health and Family Welfare.
- 2. The Central Drugs Standard Control Organisation (CDSCO) implements this scheme.
- 3. It aims to bring down the healthcare budget of every citizen of India through providing Quality generic Medicines at Affordable Prices.

Which of the above-mentioned statements are correct?

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

25. With reference to SVAMITVA Scheme, consider the following statement:

- 1. It is a central sector scheme.
- 2. It is implemented by the Ministry of Panchayati Raj.
- 3. It aims to provide an integrated property validation solution for rural India.

Which of the statements given above is/are correct?

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

26. The Rash Bihari Bose was associated with which of the following events or movement?

- 1. Indian Independence League
- 2. Ghadar mutiny
- 3. Delhi conspiracy

Which of the statements given above is/are correct?

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

27. The Ankara Declaration, sometimes seen in news is associated with

- A. G20 ministerial communique
- B. ASEAN
- C. Asia Cooperation Dialogue
- D. BRICS

28. With reference to the EDISON Alliance, consider the following statements:

- 1. It will work towards ensuring global and equitable access to the digital economy.
- 2. The World Bank will serve as the secretariat and platform for this alliance.
- 3. For 2021, the alliance will focus on health and healthcare, education, and financial inclusion.

Which of the statements given above is/are correct?

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

29. Which of the following pairs is/are correctly matched?

- | | |
|--------------------------|--|
| BRICS declaration | Associated theme |
| 1. Moscow Declaration | Anti-Terrorism Strategy |
| 2. Fortaleza Declaration | Cooperation among regional financial institution |
| 3. New Delhi declaration | Education |

Choose the correct answer using the code given below:

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

30. Consider the following statements about the Fissile Material Cutoff Treaty (FMCT):

- 1. It is a proposed international agreement that would prohibit the production of highly-enriched uranium (HEU) and plutonium.
- 2. It would provide new restrictions for both nuclear weapon states recognized under the Nuclear Nonproliferation Treaty (NPT) and not NPT members.

Which of the statements given above is/are correct?

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

31. Consider the following statements about the Red Cabomba or Pink Bloom:

- 1. This flowering species of submerged aquatic plant is endemic to Meghalaya.
- 2. It improves biodiversity and water quality of water bodies.

Which of the statements given above is/are correct?

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

32. The Umed Paoni Karandla Wildlife Sanctuary, sometimes seen in news is located in

- 1. Uttar Pradesh
- 2. Maharashtra
- 3. Chhattisgarh
- 4. Karnataka

33. Matua, sometimes seen in news is a sect of

- 1. Sikhism
- 2. Hinduism
- 3. Buddhism
- 4. Jainism

34. Consider the following statements about the Myanmar:

- 1. It is part of the Golden Triangle.
- 2. Four North-Eastern States share international boundaries with Myanmar.
- 3. It is a member of the East Asia Summit, Non-Aligned Movement and the Commonwealth of Nations.

Which of the statements given above is/are correct?

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

35. With reference to the Environmental Emergency, consider the following statements:

- 1. It refers to a situation when the quantity of carbon dioxide per Cubic Meter of air exceeds the values of 500 µg/M3.
- 2. The word Environmental Emergency was coined by National Green Tribunal

Which of the statements given above is/are correct?

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

36. Which of the following silk varieties or products are awarded with the Geographical Indications tag?

- 1. Champa Silk
- 2. Salem Silk
- 3. Pochampally Ikat

Which of the statements given above is/are correct?

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

37. Which of the following country has successfully launched Stardust 1.0, the first commercial space rocket powered by biofuels?

- Israel
- China
- US
- Russia

38. Consider the following statements about the KAPILA campaign:

- It focuses on Intellectual Property Literacy and creating patent awareness.
- It enables Intellectual Property protection of inventions originating from faculty and students of Higher Education Institutions.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

39. Which of the following Commission was constituted to Examine Sub-categorisation of Other Backward Classes (OBCs)?

- Jaya Jaitly Commission
- Justice G Rohini Commission
- Bimal Julka Commission
- Usha Thorat Commission

40. Consider the following statements about the Deepfakes:

- These are synthetic media that are manipulated or generated by Artificial Intelligence.
- India does not have any specific legislation to deal with deepfakes

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

41. Which of the following pairs is/are correctly matched?

Lake	Associated region
1. Pangong Tso	Ladakh
2. Hussain Sagar	Uttar Pradesh
3. Ameenpur	Telangana

Choose the correct answer using the code given below:

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- All of the above

42. Consider the following statements about the Lingayatism:

- It emphasizes on qualified monism.
- Being emerged as a reactionary force against Hinduism it rejected most of the broad Hindu traditions.
- It was founded by the 12th-century philosopher and statesman Basava.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 only
- 1 and 3 only
- 1, 2 and 3

43. Consider the following statements about the Kanaklata Barua:

- She was a freedom fighter from Assam who died during the Quit India Movement in 1942.
- She was the leader of the women's cadre of the Mrityu Bahini or death squads.
- She started the Heraka religious movement.

Select the correct answer using the given below code:

- 1 and 2 only
- 1 only
- 2 and 3 only
- 1, 2 and 3 only

44. The NICRA project, was launched to

- preserve the historical monuments
- provide a reliable weather and climate forecast
- promote research on adaptation and mitigation of natural resource
- enhance resilience of Indian agriculture to climate change

45. Consider the following statements about the Ammonia:

- It contributes significantly to the nutritional needs of terrestrial organisms by serving as a precursor to food and fertilizers.
- It bioaccumulates in living organisms as it lasts long in the environment.
- It is produced naturally in the human body and in nature.

Choose the correct answer:

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- All of the above

46. Which of the funds is/are created under NABARD?

- Farm Sector Promotion Fund
- Watershed Development Fund
- Micro-Irrigation Fund

Choose the correct answer using the code given below:

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

47. Which of the following are some common characteristics for granting the Special Category States (SCS) status?

1. Forest areas
2. Population density
3. Non-viable nature of state finances

Choose the correct answer using the code given below:

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

48. Consider the following statements about the "Hathkargha Samvardhan Sahayata (HSS) Yojana":

1. It aims at providing upgraded looms or accessories to handloom weavers to improve quality of fabric and enhance productivity.
2. Under this yojana, the government bears 90% of the cost of looms/accessories.
3. The scheme targets only SC/ST/OBC and women weavers.

Which of the statements given above is/are correct?

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

49. Consider the following statements about the Depository Receipt (DR):

1. DRs are issued for tapping foreign investors.
2. It is a negotiable security that can be traded on the stock exchange.

Which of the statements given above is/are correct?

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

50. It is a rare herb with extraordinary medicinal properties. The Kani tribe of Kerala has preserved the herb and the knowledge about its use. It is

- A. Ashwagandha
- B. Arogyapacha
- C. Sarpagandha
- D. Saptaparni

51. The Consider the following statements about the Atal Bhujal Yojana:

1. It is a Central Sector Scheme to improve ground water management through community participation.
2. It is implemented in all Indian states and UT's.
3. It is supported and financed by the World Bank.

Which of the statements given above is/are correct?

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

52. Consider the following statements about the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013' (SH Act):

1. It aims to provide a safe and secure work environment to women working in both organised or unorganised sectors.
2. It casts an obligation to constitute internal committee for receiving complaints of sexual harassment at workplace.

Which of the statements given above is/are correct?

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

53. What is "e-CHARAK", sometimes seen in the news?

- A. Portal to promote Khadi and Indian handloom
- B. Financial instrument to hold gold electronically in the demat form
- C. Digital currency
- D. web portal for the promotion and marketing of medicinal plants

54. It is an import tax imposed by the importing country on imported products to nullify and eliminate the price advantage enjoyed by an imported product. It is called as

- A. Excise duty
- B. Custom duty
- C. Countervailing duty
- D. Anti-dumping duty

55. Which of the following natural heritage sites located in India are included in the UNESCO world heritage site?

1. Khangchendzonga National Park
2. Eastern Ghats
3. Sundarbans National Park

Choose the correct answer using the code given below:

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

56. The Global Environment Outlook (GEO) report is published by

- A. Germanwatch
B. World Wide Fund for Nature
C. Yale University
D. United Nations Environment Programme

57. The Pagri Sambhaal movement of 1907, was a

- A. Non-violent movement for reformation of Sikh religious places
B. Farmer agitation to repeal farm laws
C. Protest against the British salt tax
D. Protest against interference of britishers in religious affairs

58. Consider the following statements about the Central Employment Guarantee Council:

1. It was constituted under the Aajeevika - National rural livelihood mission.
2. It is chaired by the Union Minister of Rural Development.

Which of the statements given above is/are correct?

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

59. Located in Karnataka, this national park is also known as Rajiv Gandhi National Park. It is a UNESCO world heritage site and shares boundaries with the Bandipur, Mudumalai and Wayanad Wildlife Sanctuary. It is

- A. Bannerghatta
B. Kudremukh
C. Nagarhole
D. Anshi

60. Consider the following statements about the "Better Than Cash Alliance":

1. It is a global partnership that accelerates the transition from cash to responsible digital payments to advance the Sustainable Development Goals.
2. The Alliance is funded by the World Bank.

Which of the statements given above is/are correct?

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

ANSWER

1. b	16. b	31. d	46. d
2. d	17. d	32. b	47. b
3. b	18. a	33. b	48. a
4. c	19. b	34. a	49. c
5. d	20. a	35. b	50. b
6. b	21. a	36. d	51. c
7. a	22. b	37. c	52. c
8. c	23. b	38. c	53. d
9. c	24. c	39. b	54. c
10. d	25. d	40. c	55. c
11. b	26. d	41. c	56. d
12. d	27. c	42. d	57. b
13. b	28. c	43. a	58. b
14. a	29. d	44. d	59. c
15. d	30. c	45. c	60. a