



INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

CURRENT AFFAIRS

SEPTEMBER 2019

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GENERAL STUDIES - I

Topics: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

1. DELHI UNDER FIROZ SHAH TUGLAQ: REIGN OF THE THIRD RULER OF TUGHLAQ DYNASTY

What to study?

- For Prelims: Contributions and reign of Firoz Shah.
- For Mains: Concerns associated with frequent renaming of places.

Context: Delhi's Feroz Shah Kotla stadium is set to be renamed Arun Jaitley Stadium after the former Finance Minister.

- The stadium took its name from a 14th century fortress **Firoz Shah Tughlaq**.

About Firoz Shah Tughlaq:

- Born in 1309 and ascended the throne of Delhi after the demise of his cousin Muhammad-bin-Tughlaq.
- He was **the third ruler of Tughlaq dynasty** that ruled over Delhi from 1320 to 1412 AD. **Tughlaq was in power from 1351 to 1388 AD.**
- He was **the one who started the imposition of Jaziya**.
- He provided **the principle of inheritance to the armed forces** where the officers were permitted to rest and send their children in army in their place. However, they were **not paid in real money but by land**.
- The British called him the '**father of the irrigation department**' because of the many gardens and canals that he built.

Contributions:

- established **the Diwan-i-Khairat** — office for charity.
- established **the Diwan-i-Bundagan** — department of slave
- established **Sarais** (rest house) for the benefits of merchants and other travellers
- adopted **the Iqtadari framework**.
- Established **four new towns**, Firozabad, Fatehabad, Jaunpur and Hissar.
- established hospitals known as **Darul-Shifa, Bimaristan or Shifa Khana**.

He constructed canals from:

- Yamuna to the city of Hissar.
- Sutlej to the Ghaggar.
- Ghaggar to Firozabad.
- Mandvi and Sirmour Hills to Hansi in Haryana.

Taxes imposed under Firoz Shah Tughlaq:

- **Kharaj**: land tax which was equal to one-tenth of the produce of the land.
- **Zakat**: two and a half per cent tax on property realized from the Muslims.
- **Kham**: one-fifth of the booty captured (four-fifth was left for the soldiers).
- **Jaziya**: levied on the non-Muslim subjects, particularly the Hindus. Women and children were, however, exempted from the taxes.
- Also levied **other taxes like the irrigation tax, garden tax, octroi tax and the sales tax**.

Sources: the Hindu.

2. KARTARPUR SAHIB PILGRIM CORRIDOR

What to study?

- For Prelims and Mains: Location and significance of the corridor, issues involved in its construction.

Context: India has urged Pakistan to show flexibility regarding some outstanding issues in the **Kartarpur corridor project**.

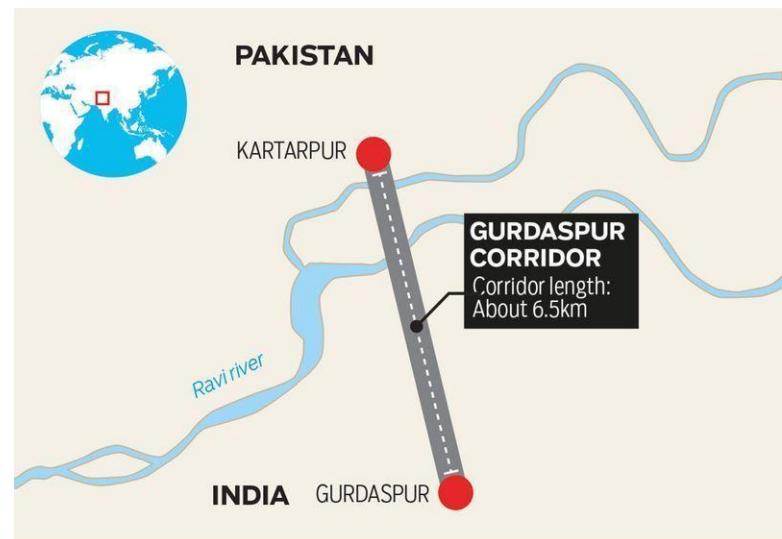
Issues:

- Pakistan is planning to charge \$20 per pilgrim.

- It has also not agreed to the initial number — 10,000 pilgrims that India proposed.
- India has not received favourable response on the presence of the consular officer who should accompany the pilgrims.

What is the “Kartarpur Corridor” project?

- The corridor – often dubbed as the “Road to Peace” – will connect Gurdwara Darbar Sahib in Pakistan’s Kartarpur with Dera Baba Nanak shrine in India’s Gurdaspur district.
- The construction of the corridor will allow visa-free access to pilgrims from India.



Implementation:

- The Kartarpur corridor will be implemented as an integrated development project with Government of India funding, to provide smooth and easy passage, with all the modern amenities.

The shrine and its significance:

- The gurdwara in Kartarpur stands on the bank of the Ravi, about 120 km northeast of Lahore.
- It was here that Guru Nanak assembled a Sikh community and lived for 18 years until his death in 1539.
- The shrine is visible from the Indian side, as Pakistani authorities generally trim the elephant grass that would otherwise obstruct the view.
- Indian Sikhs gather in large numbers for darshan from the Indian side, and binoculars are installed at Gurdwara Dera Baba Nanak.

Sources: the Hindu.

3. SANGAM CIVILISATION OLDER THAN THOUGHT

What to study?

- For Prelims: Overview of Sangam period.
- For Mains: Significance of Recent findings.

Context: Carbon samples collected from **Keezhadi, the Sangam-era site**, have been found to belong to 580 BC, according to accelerator mass spectrometry dating results.

- This suggests that **the urbanisation of Vaigai plains happened earlier than thought – around the 6th century BC.**

Key findings and revelations:

- **Tamil Brahmi script originated in the 6th century BC.** People were either literate or at least knew the art of writing as early as the 6th century BC.
- **Literate society:** Tamil Brahmi letters found were inscribed when the pot was wet or after the pot became dry. This clearly suggests literacy levels in the 6th century BC.
- **Agrarian society that reared cattle:** Skeletal fragments of cow/ox, buffalo, sheep, goat, nilgai, blackbuck, wild boar and peacock were found.
- **Good quality materials used for building:** The brick and roof tiles contained more than 80% silica mixed with 7% lime while lime plaster possessed 97% of lime.
- **High standard of living:** Long walls, Well-laid floors along with roof tiles in a collapsed state, iron nails fastened to the poles and rafters prove a high standard of living during the Sangam age.

Sources: the Hindu.

Topics: Modern Indian history from about the middle of the eighteenth century until the present- significant events, personalities, issues.

1. FORMATION OF INTERIM GOVERNMENT OF INDIA

What to study?

- For Prelims: Key composition of the interim government and various decisions executed.
- For Mains: What led to the creation of interim government and what was the outcome of it?

Context: On September 2, 1946, the **interim government of India** led by Jawaharlal Nehru was formed.

About the Interim Government:

- It was the only such cabinet in India's history in which both **Congress and the Muslim League** shared power at the Centre.
- The interim government **functioned with a great degree of autonomy, and remained in power until the end of British rule**, after which it was succeeded by the Dominions of India and Pakistan.

What led to the formation of India's interim government, who were its members, and what decisions did it take?

- Starting with the **Cripps mission in 1942**, a number of attempts were made by colonial authorities to form an interim government in India.
- In 1946, **elections to the Constituent Assembly were held following the proposals of the British Cabinet Mission** dispatched by the British Prime Minister Clement Attlee.
- **Viceroy Wavell** subsequently called upon Indian representatives to join the interim government.
- The **interim government functioned according to the older Government of India Act of 1919**.

Some of the decisions by the cabinet:

- To engage in direct diplomatic relations with all countries and goodwill missions.
- Support for the independence of colonised nations.
- In November 1946, ratified the Convention on International Civil Aviation.
- In the same month, a committee was appointed to advise the government on nationalising the armed forces.
- In April 1947, the US announced the appointment of Dr. Henry F. Grady as its ambassador to India.
- On June 1, the Indian Commonwealth Relations Department and the External Affairs Department were merged to form the single **Department of External Affairs and Commonwealth Relations**.

Sources: Indian Express.

2. ASIATIC SOCIETY OF MUMBAI

What to study?

- For Prelims and mains: About the Society, its functions and objectives.

Context: Asiatic Society of Mumbai has elected **the first woman president in the 215 years of its existence**.

- **Prof Vispi Balaporia** will now head the institution.

About Asiatic Society, Mumbai:

- It is a learned society whose activities include conducting historical research, awarding historians, and running an institute of post-graduate studies.
- Its library, home to over 1 lakh books, consists of rare manuscripts contributed to it by the East India Company, as well as generous donations.
- The Society offers Junior Fellowships for research and recommends scholars for the Tagore National Fellowship of the Ministry of Culture.
- The **Governor of Maharashtra is the Society's Chief Patron**.

It's evolution:

- It began journey in **1804 as the Literary Society of Bombay**.

- Founded by **Sir James Mackintosh**, a Scottish colonial administrator who had a keen interest in Oriental studies.
- In 1826, it became the **Mumbai arm of the London-based Royal Asiatic Society of Great Britain and Ireland** and came to be called the **Bombay Branch of the Royal Asiatic Society (BBRAS)**.
- In 1954, the institution was severed from its London parent and became **the Asiatic Society of Bombay**. In 2002, it acquired its present name.

Sources: Indian Express.

3. TEACHERS' DAY 2019

What to study?

- For Prelims and mains: Teachers Day Significance and about Radhakrishnan and his key contributions.

Context: Teacher's Day is observed annually on **September 5**, as Dr. Radhakrishnan was born on September 5, 1888.

Key facts:

- Sarvepalli Radhakrishnan was **India's first Vice President** and second President.
- His book, '**The Philosophy of Rabindranath Tagore**' attracted global attention to Indian philosophy.
- His philosophy was grounded in **Advaita Vedanta**. He defended Hinduism against "uninformed Western criticism" and played a major role in the formation of contemporary Hindu identity.
- He earned the reputation of being the **bridge-builder between India and the West**.
- He was **one of the founders of Helpage India**, a renowned NGO for elderly underprivileged in India.
- He was awarded the **Bharat Ratna**, India's highest civilian award, in 1954.
- He was awarded several other distinguished awards as well such as a **knighthood** in 1931 and honorary membership of **the British Royal Order of Merit** in 1963.

Sources: pib.

4. DADABHAI NAOROJI

What to study?

- For Prelims and Mains: Key contributions and their significance.

Context: **September 4, 2019** was the 194th birth anniversary of **Dadabhai Naoroji**, the "**Grand Old Man of India**", who was among the first leaders who stirred national consciousness in the country.

- **Born in 1825 at Navsari**, in present-day Gujarat.

Key contributions:

- He was closely involved with the Indian National Congress in its early phase.
- He served as **the first Indian member of the British parliament**.
- His first agitation, in 1859, concerned **recruitment to the Indian Civil Service**.
- In 1865 and 1866, Naoroji helped found **the London Indian Society and the East India Association**. The two organisations sought to bring nationalist Indians and sympathetic Britons on one platform.
- As **the secretary of the East India Association**, Naoroji travelled in India to gather funds and raise national awareness.
- In 1885, Naoroji became a **vice-president of the Bombay Presidency Association**, was nominated to the Bombay legislative council by Governor Lord Reay, and helped form the Indian National Congress.
- He was **Congress president thrice, in 1886, 1893, and 1906**.
- In 1893, he helped form an **Indian parliamentary committee** to attend to Indian interests.
- In 1895, he became a member of the **royal commission on Indian expenditure**.
- Dadabhai Naoroji was among the key proponents of the '**Drain Theory**', disseminating it in his 1901 book '**Poverty and Un-British Rule in India**'.

What is Drain Theory?

- Imperial Britain was draining away India's wealth to itself through exploitative economic policies, including India's rule by foreigners; the heavy financial burden of the British civil and military apparatus in India; the

exploitation of the country due to free trade; non-Indians taking away the money that they earned in India; and the interest that India paid on its public debt held in Britain.

Sources: the Hindu.

5. PAIKA REBELLION

What to study?

- For Prelims and Mains: Paika Rebellion- what when and why?

Context: President Ram Nath Kovind to lay the foundation of a memorial dedicated to the 1817 **Paika Rebellion**.

Who are Paikas?

- Paikas had been recruited since the 16th century by kings in Odisha from a variety of social groups **to render martial services in return for rent-free land (nish-kar jagirs) and titles**. They **were the traditional land-owning militia of Odisha and served as warriors**.

How the rebellion began?

- When armies of the East India Company overran most of Odisha in 1803, the Raja of Khurda lost his primacy and the power and prestige of the Paikas went on a decline.
- The British were not comfortable with these aggressive, warlike new subjects and set up a commission under Walter Ewer to look into the issue.
- The commission recommended that the hereditary rent-free lands granted to the Paikas be taken over by the British administration and this recommendation was zealously adhered to. They revolted against the British.
- Bakshi Jagabandhu Bidyadhar Mohapatra Bharambar Rai**, the highest-ranking military general of **King of Khorda Mukund Dev II**, led the Paikas to join the uprising.
- However, the rebellion had several other underlying causes – like the rise in the price of salt, abolition of the cowrie currency for payment of taxes and an overtly extortionist land revenue policy.
- Although initially the Company struggled to respond they managed to put down the rebellion by May 1817. Many of the Paik leaders were hung or deported. Jagabandhu surrendered in 1825.

Nationalist movement or a Peasant rebellion?

- The Paika Rebellion is one among the peasant rebellions that took place in India when the British East India Company was expanding its military enterprise.
- Because these uprisings violently clashed with European colonialists and missionaries on many occasions, their resistance is sometimes seen as the first expression of resistance against colonial rule — and therefore considered to be “nationalist” in nature.

Sources: Indian Express.

Topics: History of the world will include events from 18th century such as industrial revolution, world wars, redrawing of national boundaries, colonization, decolonization, political philosophies like communism, capitalism, socialism etc.- their forms and effect on the society.

MUNICH AGREEMENT

What to study?

- For Prelims: Key features of the agreement.
- For Mains: A critical analysis.

Context: On September 1, 1939 — German troops marched into Poland, triggering **the beginning of World War II**.

- Great Britain and France, which had assured help to Poland, declared war on Germany and its allies two days later, on September 3. The beginning of the War exposed to the world the folly of **the Munich Agreement**.

What is Munich Agreement?

- The Agreement was signed among Germany, France, Italy, and Great Britain on September 29-30, 1938. **Czechoslovakia**, the country whose region was about to be annexed, was not officially party to the Agreement. It was forced to agree to the deal under pressure from Great Britain and France, which had a military alliance with the country.
- The Agreement allowed for the **cession to Germany of Sudetenland**. The German occupation was to be done in four stages from October 1-10, 1938.
- The cession in some places was subject to a plebiscite.
- The Czechoslovak government was supposed to release from their military and police forces within four weeks of the signing of the Agreement, any Sudeten Germans who wished to be released, and all Sudeten German prisoners.

Outcome:

- Six months after the Munich Agreement was signed, Hitler went back on his commitments and invaded the whole of Czechoslovakia. War was on its way.
- The agreement has been seen as a disastrous act of appeasement of Adolf Hitler's Nazi regime, and historical evidence that expansionist totalitarianism cannot be dealt with through placation.



Sources: the Hindu.

Topics: Salient features of Indian Society, Diversity of India.

1. INDUS VALLEY SETTLERS HAD A DISTINCT GENETIC LINEAGE

What to study?

- For Prelims: Harappan sites, culture and features.
- For Mains: Significance of their way of life, issues and recent findings.

Context: A study of DNA from skeletal remains excavated from the Harappan cemetery at Rakhigarhi argues that the hunter-gatherers of South Asia- people from **Indus Valley Civilisation**, who then became a settled people, have an **independent origin**.

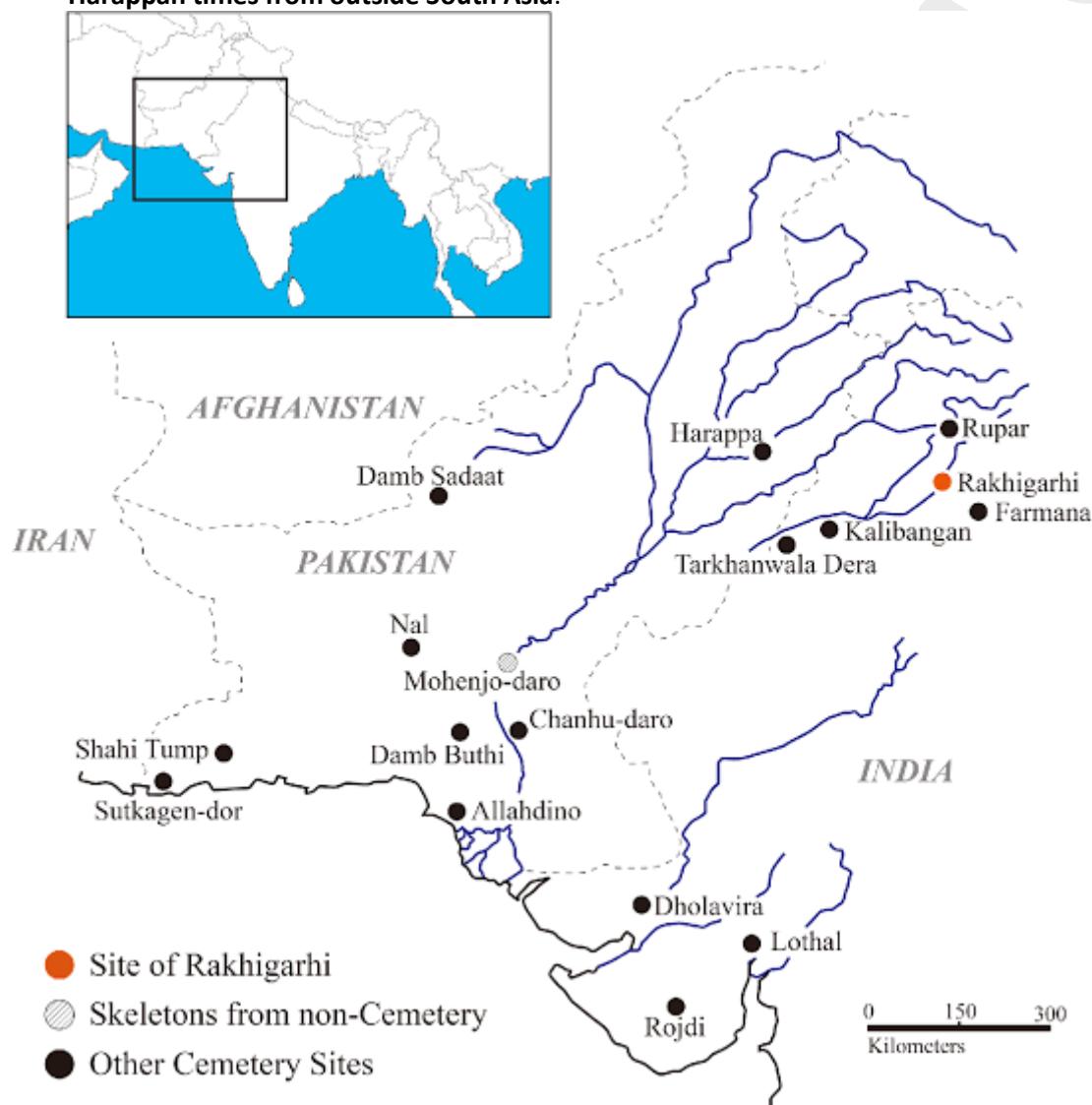
Findings of the study:

- **Independent origin:** The hunter-gatherers of South Asia had an **independent origin**. They do not contain genome from either the Steppe region or ancient Iranian farmers.

- The same hunter-gatherer communities developed into **agricultural communities and formed the Harappan civilisation**.
- As the Harappans traded with Mesopotamia, Egypt, the Persian Gulf and almost all across South Asia, there was bound to be movement of people resulting in a **mixed genetic history**. India had a heterogeneous population right from the beginning of settled life.
- There was a movement of people from east to west as the **Harappan people's presence is evident at sites like Gonur in Turkmenistan and Sahr-i-Sokhta in Iran**.
- Researchers find **no trace of the Anatolian-related ancestry** that is a hallmark of the spread of farming to the west, but the Iranian-related ancestry they detected in South Asians comes from a lineage that separated from ancient Iranian farmers and hunter-gatherers before those groups split from each other.

Background and significance of the study:

- With these findings, the theory of the **Harappans having Steppe pastoral or ancient Iranian farmer ancestry** thus stands refuted. The finding also negates the hypothesis about **mass migration during Harappan times from outside South Asia**.



Sources: the Hindu.

2. UNIFORM CIVIL CODE

What to study?

- For Prelims: Constitutional provisions related to Uniform Civil Code.
- For Mains: UCC- need, concerns, challenges and is it suitable for India?

Context: Government has failed to bring in Uniform Civil Code, says Supreme Court.

What is uniform civil code?

- A generic set of governing laws for every citizen without taking into consideration the religion.

What the constitution says?

- Article 44 of the Constitution says that there should be a Uniform Civil Code. According to this article, “The State shall endeavor to secure for the citizens a uniform civil code throughout the territory of India”. Since the Directive Principles are only guidelines, it is not mandatory to use them.

India needs a Uniform Civil Code for the following reasons:

- A secular republic needs a common law for all citizens rather than differentiated rules based on religious practices.
- Another reason why a uniform civil code is needed is gender justice. The rights of women are usually limited under religious law, be it Hindu or Muslim. The practice of triple talaq is a classic example.
- Many practices governed by religious tradition are at odds with the fundamental rights guaranteed in the Indian Constitution.
- Courts have also often said in their judgements that the government should move towards a uniform civil code including the judgement in the Shah Bano case.

Why is UCC is not desirable at this point?

- Secularism cannot contradict the plurality prevalent in the country. Besides, cultural diversity cannot be compromised to the extent that our urge for uniformity itself becomes a reason for threat to the territorial integrity of the nation.
- The term ‘secularism’ has meaning only if it assures the expression of any form of difference. This diversity, both religious and regional, should not get subsumed under the louder voice of the majority. At the same time, discriminatory practices within a religion should not hide behind the cloak of that faith to gain legitimacy.

What is needed now?

- Need of the hour is the **codification of all personal laws** so that prejudices and stereotypes in every one of them would come to light and can be tested on the anvil of fundamental rights of the Constitution.
- By codification of different personal laws, one can arrive at certain universal principles that prioritise equity rather than imposition of a Uniform Code, which would discourage many from using the law altogether, given that matters of marriage and divorce can also be settled extra-judicially.

Sources: the Hindu.

Topics: Women and women related issues.

BETI BACHAO BETI PADHAO'

What to study?

- For Prelims: BBBP.
- For Mains: Declining CSR- concerns, challenges and solutions.

Context: WCD Minister Felicitates states and Districts Under BBBP Scheme.

Key facts:

- Haryana, Uttarakhand, Delhi, Rajasthan and Uttar Pradesh were felicitated for improvement in Sex Ratio at Birth (SRB).
- Ten districts selected for improvement in SRB were also felicitated during the programme.

About BBBP:

- **Beti Bachao Beti Padhao (BBBP) Scheme** was launched in January, 2015.
- The scheme is **aimed at promoting gender equality and the significance of educating girls**.
- The Scheme is **targeted at improving the Child Sex Ratio** through multi sectoral interventions including prevention of gender biased sex selection and promoting girls' education and her holistic empowerment.

- It is a **tri-ministerial effort** of Ministries of Women and Child Development, Health & Family Welfare and Human Resource Development.

Significance and the need for scheme:

- The trend of decline in the Child Sex Ratio (CSR) has been unabated since 1961. The decline from 945 in 1991 to 927 in 2001 and further to 918 in 2011 is alarming. The social construct discrimination against girls on one hand, easy availability, affordability and subsequent misuse of diagnostic tools on the other hand, have been critical in increasing Sex Selective Elimination of girls leading to low Child Sex Ratio.
- Child Sex Ratio is defined as number of girls per 1000 of boys between 0-6 years of age. Hence, a decline in the CSR is a major indicator of women disempowerment. The ratio reflects both, pre-birth discrimination manifested through gender biased sex selection and post birth discrimination against girls.

Sources: pib.

Topics: Population and associated issues, poverty and developmental issues.

INTERNATIONAL MIGRANT STOCK 2019

What to study?

- For Prelims: Key findings.
- For Mains: Migration- effects, challenges and ways to address them.

Context: Population Division of the UN Department of Economic and Social Affairs has released the **International Migrant Stock 2019**.

- A data of several international migrants by origin, age and sex for all countries and areas are included in the report.
- UN prepared this report with the help of population censuses, population registers and nationally representative surveys.

Key findings:

- India is the leading country of origin of international migrants in 2019 with a 17.5 million-strong diaspora.
- Most of the international migrants came from Bangladesh, Pakistan and Nepal.

Global scenario:

- The number of migrants globally reached an estimated 272 million.
- After India, Migrants from Mexico makes the second largest diaspora (11.8 million), followed by China (10.7 million), Russia (10.5 million), Syria (8.2 million), Bangladesh (7.8 million), Pakistan (6.3 million), Ukraine (5.9 million), the Philippines (5.4 million) and Afghanistan (5.1 million).
- In Europe, 82 million migrants were settled there, followed by North America (59 million) and North Africa and Western Asia (49 million).
- USA is hosting the largest number of international migrants (51 million) while Saudi Arabia (13 million), Russia (12 million), England (10 million), France (8 million) and Italy (6 million) are also holding the large numbers of migrants.

Women migrants:

- The share of women and girls migrants fell slightly from 49% to 48% in the year 2019. Northern America had the highest (52%) number of women migrants. However, Europe (51%), Sub-Saharan Africa (47 %) and Northern Africa and Western Asia (36 %) also experienced the issue of women migrants.

Sources: the Hindu.

Topics: Urbanization, their problems and their remedies.

1. SWACHH ICONIC PLACES

What to study?

- For Prelims: SIP and SBM- key features, brief overview of places chosen for SIP project.
- For Mains: SBM- features, significance, challenges and sub- missions.

- **Context:** Mata Vaishno Devi shrine atop the Trikuta hills in Reasi district of Jammu and Kashmir has been named country's 'Best Swachh Iconic Place'.

About Swachh Iconic Places (SIP):

- **What is it?** It is an initiative of Ministry of Drinking Water and Sanitation under Swachh Bharat Mission.
- **Aims** to take iconic places and their surroundings to higher standards of Swachhata, so that all visitors benefit and also take away home the message of cleanliness.
- **Implementation of the project:** It is a collaborative project with three other central Ministries: Urban Development, Culture, Tourism; all levels in the concerned States and more importantly, Public Sector and Private companies as partners.
- **Phase I iconic places are:** Ajmer Sharif Dargah, CST Mumbai, Golden Temple, Kamakhya Temple, MaikarnikaGhat, Meenakshi Temple, Shri Mata Vaishno Devi, Shree Jagannath Temple, The Taj Mahal and Tirupati Temple.
- **Phase II included** Gangotri, Yamunotri, Mahakaleshwar Temple, Charminar, Convent and Church of St. Francis of Assissi, Kalady, Gommateswara, BaidyanathDham, Gaya Tirth and Somnath temple.
- **Phase III includes** RaghavendraSwamy Temple (Kurnool, Andhra Pradesh); Hazardwari Palace (Murshidabad, West Bengal); Brahma Sarovar Temple (Kurukshetra, Haryana); VidurKuti (Bijnor, Uttar Pradesh); Mana village (Chamoli, Uttarakhand); Pangong Lake (Leh-Ladakh, J&K); Nagvasuki Temple (Allahabad, Uttar Pradesh); Imakeithal/market (Imphal, Manipur); Sabarimala Temple (Kerala); and Kanvashram (Uttarakhand).

Sources: the Hindu.

2. GLOBAL LIVEABILITY INDEX

What to study?

- For Prelims: Features of the Global Liveability Index, rankings of various countries, Indian Cities in the list.
- For Mains: Significance of the index and what makes cities more liveable?

Context: The Economist Intelligence Unit (EIU) has released the Global Liveability Index 2019.

- The index ranks 140 global cities based on their living conditions.
- **Significance:** The liveability index quantifies the challenges that might be presented to an individual's lifestyle in 140 cities worldwide, and assesses which locations provide the best living conditions.
- The list is topped by Vienna (Austria) for the second consecutive year.

The survey rates cities worldwide based on 30 qualitative and quantitative criteria, which fall into five general categories:

1. Stability
2. Health care.
3. Culture and environment.
4. Education
5. Infrastructure

Performance of Indian cities:

- **New Delhi** has dropped by six places to rank 118th on the list.
- **Mumbai** also fell two places since last year to rank 119th.

Reasons for decline in liveability in Indian cities:

- Abuses against journalists.
- Rise in Crime rates.
- Climatic changes.
- Constrained liveability conditions.

Sources: the Hindu.

Topics: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

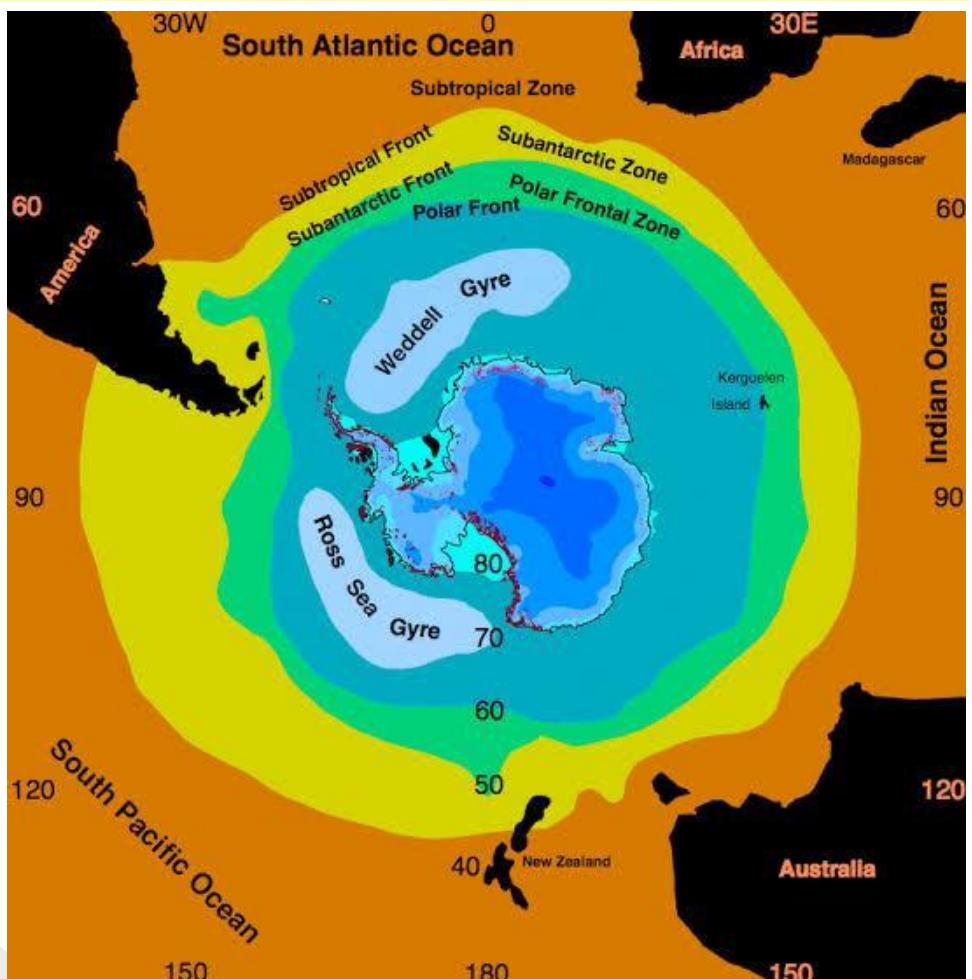
1. ANDREX PROJECT

What to study?

- For Prelims and mains: key objectives and significance of the mission.

Context: Scientists have discovered that, contrary to existing assumptions, **biological processes far out at sea are the most important factors determining how the ocean absorbs carbon dioxide.**

- This enhances the understanding of the link between the Southern Ocean — next to Antarctica — and the atmospheric carbon dioxide levels.
- Scientists studied data collected as part of the **ANDREX project (Antarctic Deep water Rates of Export)** which measured the physical, biological, and chemical properties of the waters in the gyre between 2008 and 2010.



Significance:

- Carbon dioxide is absorbed in the surface oceans and stored in the deep seas, gradually, over a timescale of 100s to 1,000s years.
- The Southern Ocean plays a critical role in how the carbon dioxide is taken out of the atmosphere, and knowing how it functions helps scientists understand this mechanism's role during dramatic climate transitions in the past, such as the ice ages, and better predict the current and future climate change.

About ANDREX project:

- The project seeks to assess the role of the Weddell gyre in driving the southern closure of the meridional overturning circulation, in ventilating the deep global ocean, and in sequestering carbon and nutrients in the global ocean abyss.

Sources: the Hindu.

2. MAPPING LIGHTNING ACROSS INDIA

What to study?

- For Prelims: Key findings of the report, how lightning strikes?
- For Mains: Need for studying the pattern and forecasts.

Context: For the first time, a report- **Mid- Monsoon 2019 Lightning Report**- has mapped lightning strikes across the country, and the lives they have claimed.

- It has been prepared by **Climate Resilient Observing Systems Promotion Council (CROPC)**, a non-profit organisation that works closely with **India Meteorological Department (IMD)**.
- Lightning strikes have caused at least 1,311 deaths in the four-month period between April and July this year.

Need for and significance of forecasts:

- It is possible to predict, 30-40 minutes in advance, when a lightning strike heads towards Earth.
- The prediction is possible through study and monitoring of the in-cloud lightning strikes. Timely dissemination of this information can save several lives.

What is lightning, and how does it strike?

- It is a **very rapid — and massive — discharge of electricity in the atmosphere**, some of which is directed towards the Earth's surface. These discharges are generated in giant moisture-bearing clouds that are 10-12 km tall.

How does it strike?

- The base of these clouds typically lies within 1-2 km of the Earth's surface, while their top is 12-13 km away.
- Temperatures towards the top of these clouds are in the range of minus 35 to minus 45 degrees Celsius.
- As water vapour moves upward in the cloud, the falling temperature causes it to condense. Heat is generated in the process, which pushes the molecules of water further up.
- As they move to temperatures below zero degrees celsius, the water droplets change into small ice crystals. They continue to move up, gathering mass — until they are so heavy that they start to fall to Earth.
- This leads to a system in which, simultaneously, smaller ice crystals are moving up and bigger crystals are coming down.
- Collisions follow, and trigger the release of electrons — a process that is very similar to the generation of sparks of electricity. As the moving free electrons cause more collisions and more electrons, a chain reaction ensues.
- This process results in a situation in which the top layer of the cloud gets positively charged, while the middle layer is negatively charged.
- The electrical potential difference between the two layers is huge — of the order of a billion to 10 billion volts. In very little time, a massive current, of the order of 100,000 to a million amperes, starts to flow between the layers.
- An enormous amount of heat is produced, and this leads to the heating of the air column between the two layers of the cloud. This heat gives the air column a reddish appearance during lightning. As the heated air column expands, it produces shock waves that result in thunder.

How does this current reach the Earth from the cloud?

- While the **Earth is a good conductor of electricity**, it is electrically neutral. However, in comparison to the middle layer of the cloud, it becomes positively charged. As a result, about 15%-20% of the current gets directed towards the Earth as well. It is this flow of current that results in damage to life and property on Earth.
- There is a **greater probability of lightning striking tall objects** such as trees, towers or buildings. Once it is about 80-100 m from the surface, lightning tends to change course towards these taller objects. This happens because **air is a poor conductor of electricity**, and electrons that are travelling through air seek both a better conductor and the shortest route to the relatively positively charged Earth's surface.

Sources: Indian Express.

3. ATLANTIC MERIDIONAL OVERTURNING CIRCULATION (AMOC)

What to study?

- For Prelims: What is AMOC?
- For Mains: How warming up of Indian Ocean affects AMOC?

Context: Since the past 15 years, **Atlantic meridional overturning circulation (AMOC)** has been weakening — a development that could have dramatic consequences for Europe and other parts of the Atlantic rim. **Warming up of Indian Ocean** is said to be a key driver behind this.

How it affects?

- Warming in the Indian Ocean generates additional precipitation, which, in turn, draws more air from other parts of the world, including the Atlantic.
- The higher level of precipitation in the Indian Ocean will reduce precipitation in the Atlantic and increase salinity in the waters.

What is the Atlantic Meridional Overturning Circulation?

- The Atlantic Meridional Overturning Circulation (AMOC) is a large system of ocean currents that carry warm water from the tropics northwards into the North Atlantic.
- It aids in distributing heat and energy around the earth, as the warm water it carries releases heat into the atmosphere, and in absorbing and storing atmospheric carbon.

How does the AMOC work?

- The AMOC is a large system of ocean currents, like a conveyor belt, driven by differences in temperature and salt content – the water's density.
- As warm water flows northwards it cools and some evaporation occurs, which increases the amount of salt. Low temperature and a high salt content make the water denser, and this dense water sinks deep into the ocean.
- The cold, dense water slowly spreads southwards, several kilometres below the surface. Eventually, it gets pulled back to the surface and warms in a process called “upwelling” and the circulation is complete.

Sources: Down to earth.

4. NAMING OF CYCLONES

What to study?

- For Prelims: A brief overview of recent cyclones and their origins.
- For Mains: Classification and naming of cyclones.

Context: Tropical Storm Hikaa develops into Cyclone.

How are cyclones named?

- **Each Tropical Cyclone basin** in the world has its own **rotating list of names**.
- **For cyclones in the Bay of Bengal and Arabian Sea**, the naming system was agreed by **eight member countries of a group called WMO/ESCAP** and took effect in 2004.

How the names are chosen?

- The member countries submitted eight names each. **The first cyclone after the list was adopted was given the name in the first row of the first column — Onil**, proposed by Bangladesh.
- Subsequent cyclones are being named sequentially, column-wise, with each cyclone given the name immediately below that of the previous cyclone.
- Once the bottom of the column is reached, **the sequence moves to the top of the next column**. So far, the first seven columns have been exhausted.

Why name cyclones?

- Makes it easier for the media to report on these cyclones, heightens interest in warnings, and increases community preparedness.
- Easier to remember than numbers and technical terms.

Why eastern coast of India is more vulnerable?

- In addition to the storms that originate in the southeast Bay of Bengal and the adjoining Andaman Sea, **breakaway typhoons over the Northwest Pacific move across the South China Sea into the Bay of Bengal**, intensifying into cyclones.

- In contrast, Arabian Sea cyclones are mostly their own formations and they also generally move north-west, away from India's west coast.
- Besides, the Arabian Sea is colder than the Bay of Bengal, which inhibits the formation and intensification of the cyclonic system in the former. Warm sea surface temperature is an ideal platform for cyclones.

Facts for prelims:

- **Cyclones are given many names in different regions of the world** – They are known as **typhoons** in the China Sea and Pacific Ocean; **hurricanes** in the West Indian islands in the Caribbean Sea and Atlantic Ocean; **tornados** in the Guinea lands of West Africa and southern USA.; **willy-willies** in north-western Australia and **tropical cyclones** in the Indian Ocean.

Sources: pib.

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GENERAL STUDIES - II

Topics: Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure; Comparison of the Indian constitutional scheme with that of other countries.

1. 6TH SCHEDULE OF THE CONSTITUTION

What to study?

- For Prelims and Mains: Overview of autonomous councils constituted under 6th schedule of the constitution, measures announced for the strengthening of these institutions, 125th Amendment Bill, need for inclusion of Ladakh.

Context: National Commission for Scheduled Tribes (NCST) Writes to Union Home Minister & Union Tribal Affairs Minister Conveying Its recommendation to **Include Union Territory of Ladakh Under 6th Schedule of Constitution of India.**

6th schedule:

- It deals with the administration of the tribal areas in the four northeastern states of Assam, Meghalaya, Tripura and Mizoram.

Key provisions:

- The governor is empowered to organise and re-organise the autonomous districts.
- If there are different tribes in an autonomous district, the governor can divide the district into several autonomous regions.
- Composition:** Each autonomous district has a district council consisting of 30 members, of whom four are nominated by the governor and the remaining 26 are elected on the basis of adult franchise.
- Term:** The elected members hold office for a term of five years (unless the council is dissolved earlier) and nominated members hold office during the pleasure of the governor.
- Each autonomous region also has a separate regional council.
- Powers of councils:** The district and regional councils administer the areas under their jurisdiction. They can make laws on certain specified matters like land, forests, canal water, shifting cultivation, village administration, inheritance of property, marriage and divorce, social customs and so on. But all such laws require the assent of the governor.
- Village councils:** The district and regional councils within their territorial jurisdictions can constitute village councils or courts for trial of suits and cases between the tribes. They hear appeals from them. The jurisdiction of high court over these suits and cases is specified by the governor.
- Powers and functions:** The district council can establish, construct or manage primary schools, dispensaries, markets, ferries, fisheries, roads and so on in the district. It can also make regulations for the control of money lending and trading by non-tribals. But, such regulations require the assent of the governor. The district and regional councils are empowered to assess and collect land revenue and to impose certain specified taxes.
- Exceptions:** The acts of Parliament or the state legislature do not apply to autonomous districts and autonomous regions or apply with specified modifications and exceptions.
- The governor can appoint a commission to examine and report on any matter relating to the administration** of the autonomous districts or regions. He may dissolve a district or regional council on the recommendation of the commission.

The total tribal population in Ladakh region is more than 97%. The region is inhabited by following Scheduled Tribes, namely:

- Balti
- Beda
- Bot, Boto
- Brokpa, Drokpa, Dard, Shin
- Changpa
- Garra
- Mon
- Purigpa

Related- 125th amendment bill:

- It seeks to increase the financial and executive powers of the 10 Autonomous Councils in the Sixth Schedule areas of the northeastern region.
- The amendments provide for elected village municipal councils, ensuring democracy at the grassroot level.

- The **village councils will be empowered to** prepare plans for economic development and social justice including those related to agriculture, land improvement, implementation of land reforms, minor irrigation, water management, animal husbandry, rural electrification, small scale industries and social forestry.
- The **Finance Commission** will be mandated to recommend devolution of financial resources to them.
- The **Autonomous Councils** now depend on grants from Central ministries and the State government for specific projects. At least one-third of the seats will be reserved for women in the village and municipal councils in the Sixth Schedule areas of Assam, Mizoram and Tripura after the amendment is approved.

Sources: pib.

2. ACCESS TO INTERNET IS A BASIC RIGHT: KERALA HC

What to study?

- For Prelims: Right to freedom and privacy, how are they protected?
- For Mains: Threats to these rights, how can they be guaranteed?

Context: The Kerala High Court has held that the right to have access to the Internet is part of the fundamental right to education as well as the right to privacy under Article 21 of the Constitution.

What's the issue?

- A college student from Kozhikode was recently expelled from the college hostel for using her mobile phone beyond the restricted hours.
- This was challenged in the court.
- The petitioner contended that the internet, accessible through mobile phones or laptops, provided an avenue for the students to gather knowledge.

Observations made by the HC:

- When the Human Rights Council of the United Nations has found that the right of access to Internet is a fundamental freedom and a tool to ensure right to education, a rule or instruction which impairs the said right of the students cannot be permitted to stand in the eye of law.
- The action of the college authorities infringed the **fundamental freedom as well as privacy** and would adversely affect the future and career of students who want to acquire knowledge and compete with their peers.
- The court while citing the observations of the Supreme Court in the **S.Rengarajan and others v. P. Jagjivan Ram (1989) case** said “the fundamental freedom under Article 19(1)(a) can be reasonably restricted only for the purposes mentioned in Article 19(2) and the restriction must be justified on the anvil of necessity and not the quicksand of convenience or expediency.”

Conclusion:

- The Court has observed rightly in the sense that the hostel authorities are expected to **enforce only those rules and regulations for enforcing discipline**. Enforcement of discipline shall not be by blocking the ways and means of the students to acquire knowledge.
- Besides, college authorities as well as parents should be conscious of the fact that **the students in a college hostel are adults capable of taking decisions as to how and when they have to study**.

UN view on this:

- UN, in 2016, made a series of statements collectively describing that **internet access as a basic human right**.
- The basic elements of this include:
- not intentionally prevent or disrupt access to or dissemination of information online.
- states should consider formulating and adopting national internet-related public policies that have the objective of universal access and enjoyment of human rights at their core through transparent and inclusive processes with all stakeholders.
- promotion, protection and enjoyment of human rights, including the right to freedom of expression, on the internet and other information and communication technology.
- how the internet can be an important tool for fostering citizen and civil society participation, for the realisation of development in every community and for exercising human rights.

Sources: the Hindu.

3. 10TH SCHEDULE OF THE CONSTITUTION

What to study?

- For Prelims: Features of 10th schedule of the constitution, dismissal, exceptions and judicial review of the decision.
- For Mains: Significance of anti-defection law, concerns associated with its misuse and measures to improve its transparency.

Context: Haryana speaker disqualifies five INLD MLAs under anti-defection law.

What is the anti-defection law?

- The **Tenth Schedule** was inserted in the Constitution in 1985 by the 52nd Amendment Act.
- It lays down **the process by which legislators may be disqualified on grounds of defection** by the Presiding Officer of a legislature based on a petition by any other member of the House.
- The decision on question as to disqualification on ground of defection is referred to the Chairman or **the Speaker of such House, and his decision is final.**
- The law applies to both Parliament and state assemblies.

Disqualification:

If a member of a house belonging to a political party:

- **Voluntarily gives up** the membership of his political party, or
- **Votes, or does not vote in the legislature**, contrary to the directions of his political party. However, if the member has taken prior permission, or is condoned by the party within 15 days from such voting or abstention, the member shall not be disqualified.
- If an **independent candidate** joins a political party after the election.
- If a **nominated member joins a party six months after he becomes a member of the legislature.**

Exceptions under the law:

- Legislators may change their party without the risk of disqualification in certain circumstances. **The law allows a party to merge with or into another party provided that at least two-thirds of its legislators are in favour of the merger.** In such a scenario, neither the members who decide to merge, nor the ones who stay with the original party will face disqualification.

Advantages of anti-defection law:

- Provides **stability** to the government by preventing shifts of party allegiance.
- Ensures that candidates remain **loyal** to the party as well the citizens voting for him.
- Promotes party **discipline**.
- Facilitates **merger** of political parties without attracting the provisions of Anti-defection
- Expected to **reduce corruption** at the political level.
- Provides for **punitive measures** against a member who defects from one party to another.
- **Various Recommendations to overcome the challenges posed by the law:**
- **Dinesh Goswami Committee on electoral reforms:** Disqualification should be limited to following cases:
 - A member voluntarily gives up the membership of his political party
 - A member abstains from voting, or votes contrary to the party whip in a motion of vote of confidence or motion of no-confidence. Political parties could issue whips only when the government was in danger.

Law Commission (170th Report):

- Provisions which exempt splits and mergers from disqualification to be deleted.
- Pre-poll electoral fronts should be treated as political parties under anti-defection
- Political parties should limit issuance of whips to instances only when the government is in danger.

Election Commission:

- Decisions under the Tenth Schedule should be made by the President/ Governor on the binding advice of the Election Commission.

Sources: the Hindu.

4. OFFICE OF PROFIT

What to study?

- For Prelims: What is office of profit and how is it determined?
- For Mains: Criticisms and controversies surrounding, ways to address them.

Context: Punjab cabinet has decided to bring an ordinance **to exclude the appointments of advisors to CM from the ambit of the office of profit.**

What's the issue?

- The appointments were termed by the opposition as an attempt to circumvent the constitutional cap on the size of state's Cabinet. **91st Amendment of Article 164(1A) of the Constitution** mandates that the strength of ministers cannot exceed 15% of the total members of the House.

What are the basic criteria to disqualify an MP or MLA?

- Basic disqualification criteria for an MP are laid down in **Article 102 of the Constitution, and for an MLA in Article 191.**
- **They can be disqualified for:** a) Holding an office of profit under government of India or state government; b) Being of unsound mind; c) Being an undischarged insolvent; d) Not being an Indian citizen or for acquiring citizenship of another country.

What is an 'office of profit'?

- If an MLA or an MP holds a government office and receives benefits from it, then that office is termed as an "**office of profit**".
- A person will be disqualified if he holds an office of profit under the central or state government, other than an office declared not to disqualify its holder by a law passed by Parliament or state legislature.

What is the underlying principle for including 'office of profit' as criterion for disqualification?

- Makers of the Constitution wanted that legislators should not feel obligated to the Executive in any way, which could influence them while discharging legislative functions. In other words, an MP or MLA should be free to carry out her duties without any kind of governmental pressure.

Sources: the hindu.

5. CORPORATE INCOME TAX

What to study?

- For Prelims: What is Corporation tax? Key changes announced.
- For Mains: Need for and significance of these decisions, challenges ahead and ways to address them.

Context: Finance Minister Nirmala Sitharaman has announced major **changes in corporate income tax rates** to revive growth in the broader economy. This has been achieved through an **ordinance— the Taxation Laws (Amendment) Ordinance 2019.**

What has the government done?

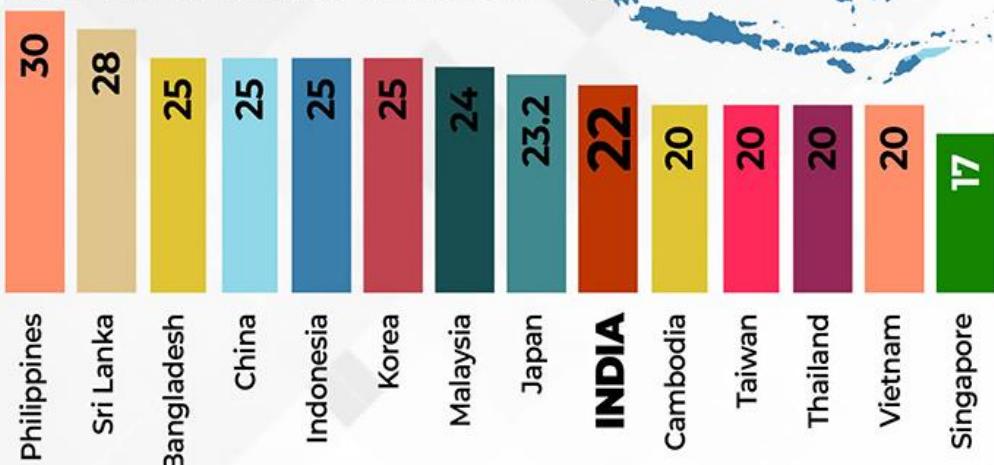
- Corporate tax rate to be 22 per cent without exemptions.
- No Minimum Alternate Tax (MAT) applicable on such companies.
- Effective corporate tax rate after surcharge and cess to be 25.17 percent.
- To attract investment in manufacturing, local companies incorporated after October 2019 and till March 2023, will pay tax at 15 percent.
- That effective tax for new companies shall be 17.01 percent, including cess and surcharge. Companies enjoying tax holidays would be able to avail concessional rates post the exemption period.
- Will give MAT relief for those opting to continue paying surcharge and cess. MAT has been reduced to 15 percent from 18.5 percent for companies who continue to avail exemptions and incentives.
- To stabilise flow of funds into the market the enhanced surcharge announced in Budget 2019 will not apply on capital gains arising on sale of any security, including derivatives by foreign portfolio investors (FPI).
- For listed companies which made announcement for public buyback before July 2019 it is provided that tax on buyback on shares of such companies will not be charged.

CORPORATE TAX CUT HOW INDIA FARES AGAINST NEIGHBOURS NOW

Corporate India will become more competitive as compared to other Asian economies in the new regime



Base corporate tax rates of major Asian economies, calendar year-end, 2019 (%)



Source: Deloitte, KPMG, Kotak Institutional Equities

How do these rates compare globally?

- The new corporate income tax rates in India will be lower than USA (27 percent), Japan (30.62 percent), Brazil (34 percent), Germany (30 percent) and is similar to China (25 percent) and Korea (25 percent).

- New companies in India with an effective tax rate of 17 percent is equivalent what corporates pay in Singapore (17 percent).

Need for and significance of the latest move:

- The goal is to turn India into an investors' darling, demonstrate the government's intent to walk the talk on economic management, restore investors' confidence and boost sentiments and demand.

Benefits associated:

- Alter the **profitability dynamic of the Indian corporate ecosystem**.
- Given the substantially lower rates would imply that **many corporates will break even much ahead than what would have been the case with the earlier rates**.
- **Lower taxes should, ideally, result in higher profit margins**. This should bolster their books, and some of these companies should be able to pass on the higher margins in the form of **lower product prices to consumers**.
- Lower corporate income tax rates and the resultant change in profitability will likely prompt companies to **invest more, raising their capital expenditure (capex)**.
- **Additional capacities will, eventually, through a secondary round effect**, prompt these companies to hire more employees.

Why has the government brought an ordinance to bring in these changes?

- Changes in income tax rates (both corporate and individual) require legislative amendments. These require Parliamentary ratification. When the Parliament is not in session, the government can bring these changes through an Ordinance and later bring a Bill when Parliament convenes.

Concerns over the rate cut?

- The revenue foregone for the government because of the latest corporate income tax cuts will be to the tune of Rs 1.45 lakh crore a year.
- This has triggered concerns of fiscal slippage, given that tax collections have been far below the budgeted estimates.
- The government has set a fiscal deficit target of 3.3 percent of GDP for 2019-20. Lower tax revenues could upset the fiscal math.

How will the corporate tax cuts be funded?

- The government may fund part of the revenue foregone because of corporate tax cuts through the additional transfer of dividends and surplus from the Reserve Bank of India (RBI).

Sources: pib.

6. HOW A US PRESIDENT CAN BE IMPEACHED?

What to study?

- For Prelims: How is US President impeached?
- For Mains: Impeachment process in India.

Context: US House of Representatives Speaker Nancy Pelosi recently announced that the **House would launch an impeachment inquiry against President Donald Trump**, over his alleged efforts to pressure Ukraine to investigate Joe Biden, Trump's potential rival in the 2020 elections.

Background:

- **No US President has ever been removed as a direct result of impeachment**. The House did impeach two Presidents — Andrew Johnson (1968) and Bill Clinton (1998) — but the Senate did not convict them. In between, President Richard Nixon (1974) resigned before he could be removed.

What is Impeachment?

- **Impeachment** is a provision that **allows Congress to remove the President of the United States**.

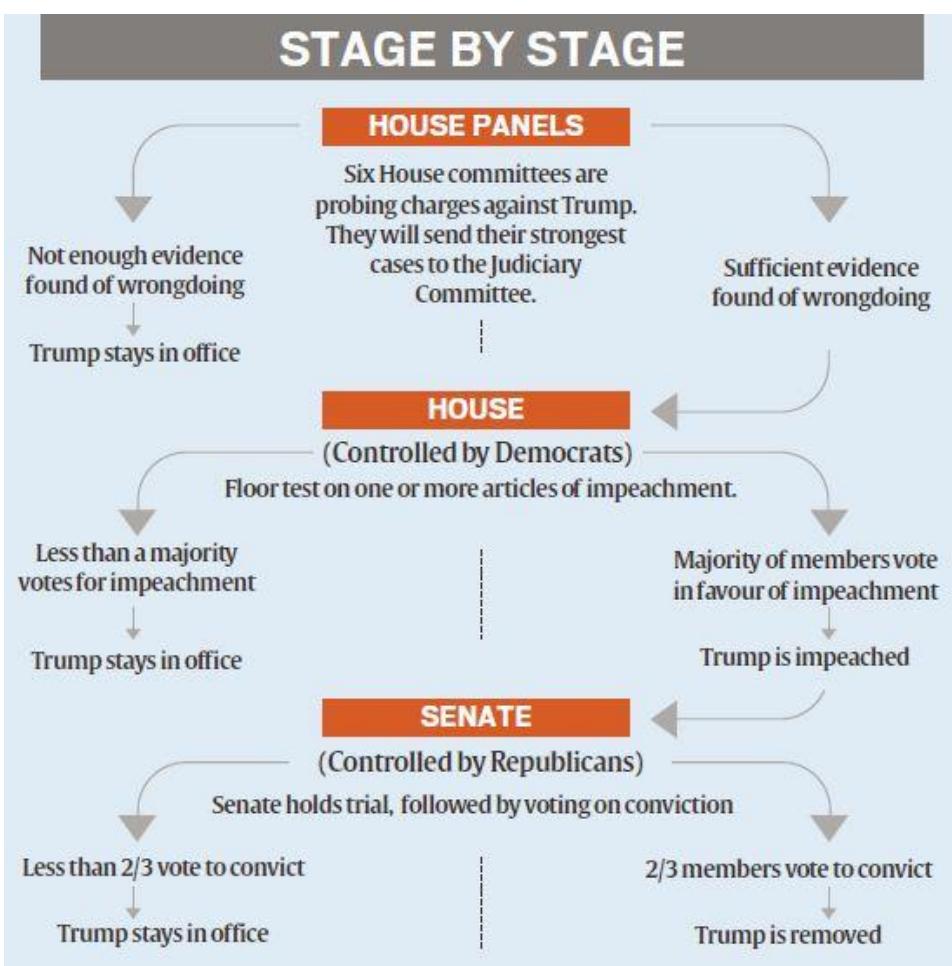
Under the US Constitution:

- The House of Representatives (Lower House) has the “the sole power of impeachment” while the Senate (Upper House) has “the sole power to try all impeachments”.
- The Chief Justice of the US Supreme Court has the duty of presiding over impeachment trials in the Senate.

Grounds for impeachment:

- The President can be removed from office for “treason, bribery, or other high crimes and misdemeanors”.
- Essentially, it means an abuse of power by a high-level public official. This does not necessarily have to be a violation of an ordinary criminal statute. Historically, in the US, it has encompassed corruption and other abuses, including trying to obstruct judicial proceedings.

STAGE BY STAGE



The process:

- It begins with an investigation by a House committee. If they find that there is enough evidence of wrongdoing, it will refer the matter to the full House.
- HOUSE VOTE:** When the full House votes, if one or more of the articles of impeachment gets a majority vote, the President is impeached. Next, the proceedings move to the Senate.
- SENATE TRIAL & VOTE:** The Senate holds a trial, overseen by the chief justice of the Supreme Court. A team of lawmakers from the House, known as managers, play the role of prosecutors. The President has defence lawyers, and the Senate serves as the jury. If at least two-thirds of the Senators present find the President guilty, he is removed and the Vice President takes over as President.

What next?

- Numbers in the Houses:** The House has 235 Democrats, 199 Republicans, and one independent. The Democrats could, therefore, impeach Trump with no Republican support.
- The Senate has 53 Republicans, 45 Democrats and two independents who usually vote with the Democrats. Conviction of the President would require 67 votes, which cannot happen unless some Republicans vote against him.

Sources: Indian Express.

7. CITIZENSHIP (AMENDMENT) BILL

What to study?

- For Prelims: Key features of the Bill, Citizenship Act 1955, Citizenship- acquisition and types available.
- For Mains: Issues over the Bill, why NE States oppose to this bill?

Context: Citizens backed by various Non-Governmental Organisations across the North-Eastern States are protesting against the government's bid to reintroduce the **Citizenship (Amendment) Bill**.

- The proposed legislation was cleared by the Lok Sabha in January, 2019 but not tabled in the Rajya Sabha.

What is the Citizenship Amendment Bill 2016 ?

- It seeks to allow illegal migrants from certain minority communities in Afghanistan, Bangladesh and Pakistan eligible for Indian citizenship by amending the **Citizenship Act of 1955**.
- It seeks to grant citizenship to people from minority communities — Hindus, Sikhs, Buddhists, Jains, Parsis and Christians —after 6 years of stay in India even if they do not possess any proper document. **The current requirement is 12 years of stay**.
- The Bill provides that the registration of Overseas Citizen of India (OCI) cardholders may be cancelled if they violate any law.
- The Bill, however, does not extend to illegal Muslim migrants. It also does not talk about other minority communities in the three neighbouring countries, such as Jews, Bahais etc.

However, the bill is being criticised for the following reasons:

- It violates the basic tenets of the Constitution. Illegal immigrants are distinguished on the basis of religion.
- It is perceived to be a demographic threat to indigenous communities.
- The Bill makes illegal migrants eligible for citizenship on the basis of religion. This may violate Article 14 of the Constitution which guarantees the right to equality.
- It attempts to naturalise the citizenship of illegal immigrants in the region.
- The Bill allows cancellation of OCI registration for violation of any law. This is a wide ground that may cover a range of violations, including minor offences.

What is the Citizenship Act 1995 ?

- Under **Article 9** of the Indian Constitution, a person who voluntarily acquires citizenship of any other country is no longer an Indian citizen.
- Citizenship by descent: Persons born outside India on or after January 26, 1950, but before December 10, 1992, are citizens of India by descent if their father was a citizen of India at the time of their birth.
- From December 3, 2004, onwards, persons born outside of India shall not be considered citizens of India unless their birth is registered at an Indian consulate within one year of the date of birth.
- In Section 8 of the Citizenship Act 1955, if an adult makes a declaration of renunciation of Indian citizenship, he loses Indian citizenship.

Topics: Separation of powers between various organs dispute redressal mechanisms and institutions.

1. COLLEGIUM OF SUPREME COURT JUDGES

What to study?

- For Prelims: Collegium system for the appointment of judges, selection and removal of SC judges, overview of NJAC.
- For Mains: Issues with Collegium system and why was NJAC struck down? Need for urgent reforms.

Context: The recent controversy over the transfer of the Chief Justice of the Madras High Court, Justice Vijaya Kamlesh Tahilramani, to the Meghalaya High Court has once again brought to the fore a long-standing debate on the functioning of the '**Collegium**' of judges.

What is the Collegium system?

- The **Collegium of judges does not figure in the Constitution**. It is the **Supreme Court's invention**.
- **Constitution says judges of the Supreme Court and High Courts are appointed by the President and speaks of a process of consultation**.
- Therefore, Collegium is a **system under which judges are appointed by an institution comprising judges**.
- Collegium also **recommends the transfer of Chief Justices and other judges**.

How did this come into being?

- ‘First Judges Case’ (1981) ruled that the “consultation” with the CJI in the matter of appointments must be full and effective. However, the CJI’s opinion should have primacy.
- Second Judges Case (1993) introduced the Collegium system, holding that “consultation” really meant “concurrence”. It added that it was not the CJI’s individual opinion, but an institutional opinion formed in consultation with the two senior-most judges in the Supreme Court.
- Third Judges Case (1998): SC on President’s reference expanded the Collegium to a five-member body, comprising the CJI and four of his senior-most colleagues.

Procedure followed by the Collegium:

- The President of India appoints the CJI and the other SC judges.
- For other judges of the top court, the proposal is initiated by the CJI.
- The CJI consults the rest of the Collegium members, as well as the senior-most judge of the court hailing from the High Court to which the recommended person belongs.
- The consultees must record their opinions in writing and it should form part of the file.
- The Collegium sends the recommendation to the Law Minister, who forwards it to the Prime Minister to advise the President.
- The Chief Justice of High Courts is appointed as per the policy of having Chief Justices from outside the respective States.
- The Collegium takes the call on the elevation.

Appointment of CJI for High Courts:

- High Court judges are recommended by a Collegium comprising the CJI and two senior-most judges.
- The proposal, however, is initiated by the Chief Justice of the High Court concerned in consultation with two senior-most colleagues.
- The recommendation is sent to the Chief Minister, who advises the Governor to send the proposal to the Union Law Minister.

Common criticism made against the Collegium system:

- Opaqueness and a lack of transparency.
- Scope for nepotism.
- Embroilment in public controversies.
- Overlooks several talented junior judges and advocates.

Attempts to reform:

- The attempt made to replace it by a ‘National Judicial Appointments Commission’ was struck down by the court in 2015 on the ground that it posed a threat to the independence of the judiciary.

Reforms needed:

- A transparent and participatory procedure, preferably by an independent broad-based constitutional body guaranteeing judicial primacy but not judicial exclusivity.
- It should ensure independence, reflect diversity, demonstrate professional competence and integrity.
- Instead of selecting the number of judges required against a certain number of vacancies, the collegium must provide a panel of possible names to the President to appointment in order of preference and other valid criteria

Sources: the Hindu.

A JURY OF JUDGES	
WHAT IS THE COLLEGIUM SYSTEM?	
• A forum which decides on appointments, transfers (A/Ts) of judges.	• Born from ‘Three Judges Cases’ which gave primacy to CJI’s call on A/Ts
• Comprised of Chief Justice of India, 4 Supreme Court Judges	• Judiciary gets greater say than Executive on A/Ts
• President merely approves CJI’s choice	
SOME OF THE CHANGES SOUGHT:	
• CJI cannot make unilateral choice	
• Consulted judges’ views need to be in writing	
• Non-compliance must make CJI choice non-binding	
• Transfer of Judges reviewable only in case of non-compliance	

2. THE IDEA OF REGIONAL SUPREME COURT BENCHES, AND 'DIVISIONS' OF THE TOP COURT

What to study?

- For Prelims: Supreme Court- various benches and their establishment.
- For Mains: Need for division and more benches, challenges involved.

Context: Recently VP M Venkaiah Naidu made the following suggestions;

- Institute four regional Benches to tackle the enormous backlog of cases, and to ensure their speedy disposal.
- The court should be split into two divisions.

Why these suggestions were made?

- In the early decades of the Republic, the Supreme Court of India functioned largely as a constitutional court, with some 70-80 judgments being delivered every year by Constitution Benches of five or more judges who ruled, as per Article 145(3) of the Constitution, on matters "involving a substantial question of law as to the interpretation of [the] Constitution".
- This number has now come down to 10-12. Due to their **heavy workload**, judges mostly sit in two- or three-judge Benches to dispose of all kinds of cases; these include several non-Constitutional and relatively petty matters such as bans (or lifting of bans) on films, or allegations that a Commissioner of Police is misusing his powers.
- On some occasions, even PILs on demands such as Sardar jokes should be banned, or that Muslims should be sent out of the country, come before the Supreme Court.
- More than 65,000 cases are pending in the Supreme Court, and disposal of appeals takes many years. Several cases involving the interpretation of the Constitution by five or seven judges have been pending for years.

What the Law Commissions said?

- The Supreme Court of India should consist of two Divisions, namely (a) Constitutional Division, and (b) Legal Division.
- Only matters of Constitutional law may be assigned to the proposed Constitutional Division.
- A Constitution Bench be set up at Delhi to deal with constitutional and other allied issues".
- Four Cassation Benches be set up in the Northern region/zones at Delhi, the Southern region/zones at Chennai/Hyderabad, the Eastern region/zones at Kolkata and the Western region/zones at Mumbai to deal with all appellate work arising out of the orders/judgments of the High Courts of the particular region".

Why we need multiple Benches?

- It is obvious that travelling to New Delhi or engaging expensive Supreme Court counsel to pursue a case is beyond the means of most litigants.

Who can decide on this?

- Article 130 says that "the Supreme Court shall sit in Delhi or in such other place or places, as the Chief Justice of India may, with the approval of the President, from time to time, appoint."
- Supreme Court Rules give **the Chief Justice of India the power to constitute Benches** — he can, for instance, have a Constitution Bench of seven judges in New Delhi, and set up smaller Benches in, say, four or six places across the country.

Sources: Indian Express.

Topics: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.

PRESIDENT APPOINTS GOVERNORS

What to study?

- For Prelims: Constitutional provisions related to the office of governor.
- For Mains: Significance and issues associated with the office of governor- is he merely a rubber stamp, comparison of powers with the President and frequent removals.

- **Context:** By exercising his authority under Article 156 of the constitution, President Ram Nath Kovind has appointed new Governors for five states.

Governors of States in India:

- The **nominal head** of a state, unlike the Chief Minister who is the real head of a state in India.
- According to **7th Constitutional Amendment Act 1956**, the same person can be the Governor of two or more states.
- **Appointment:** The governors and lieutenant-governors are appointed by the president.
- **Removal:** The term of governor's office is normally 5 years but it can be terminated earlier by: Dismissal by the president on the advice of the prime minister of the country, at whose pleasure the governor holds office or Resignation by the governor. Thus, the term is subject to pleasure of the president.
- There is **no provision of impeachment**, as it happens for the president.

Some discretionary powers are as follows:

- Can dissolve the legislative assembly if the chief minister advises him to do following a vote of no confidence. Following which, it is up to the Governor what he/ she would like to do.
- Can recommend the president about the failure of the constitutional machinery in the state.
- Can reserve a bill passed by the state legislature for president's assent.
- Can appoint anybody as chief minister If there is no political party with a clear-cut majority in the assembly.
- Determines the amount payable by the Government of Assam, Meghalaya, Tripura and Mizoram to an autonomous Tribal District Council as royalty accruing from licenses for mineral exploration.
- Can seek information from the chief minister with regard to the administrative and legislative matters of the state.
- Can refuse to sign to an ordinary bill passed by the state legislature.

Problem with constitutional design:

- The governor is merely appointed by the president on the advice of the Central government.
- Unlike the president, a governor does not have a fixed term. He/she holds office at the pleasure of the ruling party in the centre.
- Both the manner of the appointment and the uncertainty of tenure conspire to make the incumbent an object of the Central government in politically charged circumstances.

Sources: pib.

Topics: Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

1. KRISHNA WATER DISPUTE

What to study?

- For Prelims: Overview of Krishna river and award by the tribunal.
- For Mains: The dispute, its genesis and ways to address it.

Context: The Krishna river dispute has taken a new turn with Maharashtra and Karnataka CMs agreeing to jointly oppose Andhra Pradesh's application seeking a relook at the Krishna Water Disputes Tribunal's 2010 order on water distribution between the riparian states.

What is the Krishna river dispute, and what has been done to resolve it?

The Krishna:

- It is an east-flowing river.
- Originates at Mahabaleshwar in Maharashtra and merges with the Bay of Bengal, flowing through Maharashtra, Karnataka, Telangana and Andhra Pradesh.
- Basin: Together with its tributaries, it forms a vast basin that covers 33% of the total area of the four states.

What is the dispute all about?

- The dispute began with the erstwhile Hyderabad and Mysore states, and later continuing between successors Maharashtra, Karnataka and Andhra Pradesh.
- In 1969, the **Krishna Water Disputes Tribunal (KWDT)** was set up under the Inter-State River Water Dispute Act, 1956, and presented its report in 1973.
- The report, which was published in 1976, divided the 2060 TMC (thousand million cubic feet) of Krishna water at 75 per cent dependability into three parts:
 1. 560 TMC for Maharashtra.
 2. 700 TMC for Karnataka.
 3. 800 TMC for Andhra Pradesh.

Revised order:

- At the same time, it was stipulated that the KWDT order may be reviewed or revised by a competent authority or tribunal any time after May 31, 2000.
- Afterward, as new grievances arose between the states, the second KWDT was instituted in 2004.
- It delivered its report in 2010, which made allocations of the Krishna water at 65 per cent dependability and for surplus flows as follows: 81 TMC for Maharashtra, 177 TMC for Karnataka, and 190 TMC for Andhra Pradesh.

What is Andhra Pradesh demanding now?

- In 2013, the KWDT issued a ‘further report’, which was again challenged by Andhra Pradesh in the Supreme Court in 2014. After the creation of Telangana from Andhra Pradesh in 2014, the Water Resources Ministry has been extending the duration of the KWDT.
- Andhra Pradesh has since asked that Telangana be included as a separate party at the KWDT and that the allocation of Krishna waters be reworked among four states, instead of three. It is relying on Section 89 of **The Andhra Pradesh State Reorganisation Act, 2014**.

Opposition by Karnataka and Maharashtra:

- Maharashtra and Karnataka said: “**Telangana was created following bifurcation of Andhra Pradesh. Therefore, allocation of water should be from Andhra Pradesh’s share which was approved by the tribunal.**”

Sources: the Hindu.

2. HINDI TO HELP UNITE THE COUNTRY

What to study?

- For Prelims: Constitutional provisions in this regard.
- For Mains: Should Hindi be made the common language, need for, concerns and challenges ahead?

Context: During an event associated with the Hindi Divas, the Union Home Minister said that **Hindi is the only language that can unify the country and the language needs to be promoted.**

Why he said so?

- It is important to have **a language of the whole country** which should become the identity of India globally. Hindi can unite the country since it is the most spoken language.
- **There is a huge influence of English on the citizens of India.** Loss of languages due to foreign influence is a cultural issue. A language can survive only if the new generation feels proud in speaking it. Hence, Hindi should be promoted.

Why this may not be a good idea?

- India is a country of unity in diversity and has never banked on one language for its existence.
- According to Census-2011, only 60% of total Hindi-speakers speak the native Hindi dialect. Only 26% have native Hindi as their mother tongue.
- The people of non-Hindi speaking states fear that the plan to promote Hindi might make them secondary citizens and undermine the country’s integrity.

Background:

- According to Article-343, Hindi (in Devanagari script) is the official language of the Union.
- Under Article-351, it is the duty of the Union to encourage the spread of the Hindi language so that it may serve as a medium of communication.

Conclusion:

- India is a nation of many cultures and traditions and home to a heterogeneous people speaking many languages and their dialects. Their cultural identities are not to be submerged in this overtly political move to promote Hindi as a national language.

Sources: the Hindu.

3. NATIONAL POPULATION REGISTER (NPR)

What to study?

- For prelims and mains: NPR- features, composition and uses.

Context: Government has revived **National Population Register project** at a time when **National Register of Citizens** has been published in Assam. This has raised concerns among many.

What is National Population Register (NPR)?

- It is a **Register of usual residents of the country**.
- It is being prepared at the local (Village/sub-Town), sub-District, District, State and National level under provisions of the **Citizenship Act 1955** and the **Citizenship (Registration of Citizens and issue of National Identity Cards) Rules, 2003**.
- It is **mandatory for every usual resident of India to register in the NPR**.
- **Objectives:** To create a comprehensive identity database of every usual resident in the country.

Who is a usual resident?

- A usual resident is defined for the purposes of NPR as **a person who has resided in a local area for the past 6 months or more or a person who intends to reside in that area for the next 6 months or more**.

Components:

- The NPR database would **contain demographic as well as biometric details**.
- As per the provisions of the NPR, a **resident identity card (RIC)** will be issued to individuals over the age of 18.
- This will be a **chip-embedded smart card** containing the demographic and biometric attributes of each individual.
- The **UID number will also be printed on the card**.

What is the controversy around it?

- Comes in **the backdrop of the NRC** excluding 19 lakh people in Assam.
- Even as a debate continues on Aadhaar and privacy, **the NPR intends to collect a much larger amount of personal data on residents of India**.
- The idea of conducting a nationwide NRC would only happen on the basis of the upcoming NPR. After a list of residents is created, **a nationwide NRC could go about verifying the citizens from that list**.
- There is yet **no clarity on the mechanism for protection of this vast amount of data**.

Why does the government want so much data?

- Every country must have a comprehensive identity database of its residents with relevant demographic details. It will **help the government formulate its policies better and also aid national security**.
- It will **ease the life of those residing in India by cutting red tape**. Not only will it help target government beneficiaries in a better way, but also further cut down paperwork and red tape in a similar manner that Aadhaar has done.
- With NPR data, **residents will not have to furnish various proofs of age, address and other details in official work**.
- It would also **eliminate duplication in voter lists, government insists**.

Sources: the Hindu.

(Q) Government has revived National Population Register project at a time when National Register of Citizens has been published in Assam. How are the two different? What kind of data will be collected, and why? Elucidate.

Topics: Statutory, regulatory and various quasi-judicial bodies.

1. CBI TO GET CENTRALISED TECHNOLOGY VERTICAL

What to study?

- For Prelims: About Centralised Technology Vertical.
- For Mains: CBI- Establishment, its functioning, issues related to its autonomy and need for consent in investigations.

Context: The centre is planning to set up a **Centralised Technology Vertical (CTV)** under the **Central Bureau of Investigation (CBI)**.

About CBI:

- Operates under the jurisdiction of the **Ministry of Personnel, Public Grievances and Pensions**.

It's evolution:

- **The Special Police Establishment**, was set up in 1941, six years before independence from British rule to probe bribery and corruption in the country during World War II.
- In 1946, it was brought under the Home Department and its remit was expanded to investigate corruption in central and state governments under **the Delhi Special Police Establishment Act**.
- The special police force became **the Central Bureau of Investigation** after the Home Ministry, which is in charge of domestic security, decided to expand its powers and change its name in 1963.

What is CTV? What is its role?

- It facilitates **real-time information sharing with investigators across the country**.

Need for CTV:

- India has **the second largest users of Internet in the world**.
- And there is rise in "**cyber manipulators**" across the country. They are posing risk to the country by circulating fake videos on social media. This needs to be addressed.

Challenges faced by CBI:

- dependent on the home ministry for staffing.
- depends on the law ministry for lawyers.
- susceptible to the government's ability to manipulate the senior officers.
- CBI needs the consent of the State government in question before it can make its presence in that State.

Reforms needed:

- ✓ Bring in a formal and legal framework.
- ✓ Strengthen the CBI in terms of legal mandate, infrastructure and resources.
- ✓ Ensure financial autonomy.
- ✓ Develop its own dedicated cadre of officers who are not bothered about deputation and abrupt transfers.

Sources: the Hindu.

2. NATIONAL RECRUITMENT AGENCY (NRA)

What to study?

- For Prelims: NRA- composition, objectives and functions.
- For Mains: Need for and significance.

Context: Finance Ministry has approved the proposal for creation of a **National Recruitment Agency (NRA)**.

- **Objective:** To streamline recruitment of some posts in the government along with various equivalent recruitment in public sector banks.

Key facts:

- A new National Recruitment Agency (NRA) will be set up to conduct the Common Eligibility Test (CET) for all various competitive examinations, in which an estimated 2.5 crore candidates appear annually.
- NRA will conduct preliminary examinations for all these recruitment, which are at present conducted by the Staff Selection Commission (SSC) and the Institute of Banking Personnel Selection (IBPS).
- It will then subsequently forward the list of qualifying candidates to the respective recruiting agencies to conduct the mains examinations.
- The basic idea behind this proposal is to shortlist qualifying candidates through a Common Eligibility Test before sending them for the mains examination.

Need for a new agency:

- To streamline recruitment process on subordinate-rank posts in the government.
- To reduce the burden of SSC and the IBPS, among others, from holding preliminary recruitment exams, which is an extensive exercise.

Sources: the Hindu.

3. ZONAL COUNCILS

What to study?

- For Prelims and Mains: Particulars and significance of Zonal Councils.

Context: 29th Meeting of the Northern Zonal Council Held recently.

Zonal councils:

- **Statutory bodies** established under the States Reorganisation Act 1956 and not constitutional bodies. They are only deliberative and advisory bodies.
- Aim: **to promote interstate cooperation and coordination.**

There are 5 five Zonal councils namely:

1. The Northern Zonal Council, comprising the States of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, National Capital Territory of Delhi and Union Territory of Chandigarh.
 2. The Central Zonal Council, comprising the States of Chhattisgarh, Uttarakhand, Uttar Pradesh and Madhya Pradesh.
 3. The Eastern Zonal Council, comprising the States of Bihar, Jharkhand, Orissa, and West Bengal.
 4. The Western Zonal Council, comprising the States of Goa, Gujarat, Maharashtra and the Union Territories of Daman & Diu and Dadra & Nagar Haveli.
 5. The Southern Zonal Council, comprising the States of Andhra Pradesh, Telangana, Karnataka, Kerala, Tamil Nadu and the Union Territory of Puducherry.
- **The North Eastern States i.e.** (i) Assam (ii) Arunachal Pradesh (iii) Manipur (iv) Tripura (v) Mizoram (vi) Meghalaya (vii) Sikkim and (viii) Nagaland are not included in the Zonal Councils and their special problems are looked after by the North Eastern Council, set up under the North Eastern Council Act, 1972.

The main objectives of setting up of Zonal Councils are:

- Bringing out **national integration**.
- Arresting the growth of acute State consciousness, regionalism, linguism and particularistic tendencies.
- Enabling the Centre and the States to co-operate and exchange ideas and experiences.
- Establishing a **climate of co-operation** amongst the States for successful and speedy execution of development projects.

Composition:

- **Chairman** – The Union Home Minister is the Chairman of each of these Councils.
- **Vice Chairman** – The Chief Ministers of the States included in each zone act as Vice-Chairman of the Zonal Council for that zone by rotation, each holding office for a period of one year at a time.
- **Members** – Chief Minister and two other Ministers as nominated by the Governor from each of the States and two members from Union Territories included in the zone.
- **Advisers** – One person nominated by the Planning Commission (which has been replaced by NITI Ayog now) for each of the Zonal Councils, Chief Secretaries and another officer/Development Commissioner nominated by each of the States included in the Zone.
- **Union Ministers are also invited** to participate in the meetings of Zonal Councils depending upon necessity.

ELSEWHERE:

- **US:** Has the highest population of smokeless tobacco and vape-product users. Plans to ban all e-cigarette flavours, except for tobacco.
- **UK:** Sales of ENDS products like vapes are legal. Introduced regulations for e-cigarette firms in 2016.
- **China:** Announced in July 2019 that it plans to regulate e-cigarettes to strengthen supervision of these products.
- **France:** Allows sale of e-cigarettes as either medicines or consumer products, but those making health claims related to these products need marketing authorisation under standard drug licencing process. Those selling as consumer products are regulated by the country's May 2016 decree on vapour products containing nicotine.
- **Germany:** Classifies nicotine-containing e-cigarettes as tobacco-related products and regulates it under country's 2016 law on Implementation of the Tobacco Products Directive and Related Products.

Sources: pib.

Topics: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

1. ONE NATION-ONE RATION CARD SCHEME

What to study?

- For prelims: key features of the proposed scheme, PDS.
- For mains: Need for, significance of the scheme and challenges in its implementation.

Context: Four more States join ration card portability.

- Ration card holders in **Kerala and Karnataka**, as well as in **Rajasthan and Haryana**, will be able to buy subsidised food from ration shops in the neighbouring State from next month.

Challenges:

- **Prone to corruption:** Every state has its own rules for Public Distribution System (PDS). If 'One Nation, One Ration Card' is implemented, it will further boost corruption in an already corrupted Public Distribution System.
- The scheme will increase the woes of the common man and, the middlemen and corrupt PDS shop owners will exploit them.
- Tamil Nadu has opposed the proposal of the Centre, saying it would result in undesirable consequences and is against federalism.

Sources: the Hindu.

About the scheme:

- One Nation One Ration Card (RC) will ensure all beneficiaries especially migrants can access PDS across the nation from any PDS shop of their own choice.
- **Benefits:** no poor person is deprived of getting subsidised foodgrains under the food security scheme when they shift from one place to another. It also aims to remove the chance of anyone holding more than one ration card to avail benefits from different states.
- **Significance:** This will provide freedom to the beneficiaries as they will not be tied to any one PDS shop and reduce their dependence on shop owners and curtail instances of corruption.

2. UAPA TRIBUNALS

What to study?

- For Prelims: Overview of UAPA and tribunals.
- For Mains: Concerns over functioning of these tribunals, challenges therein and the need for reforms.

Context: In recent times, amendments to the **unlawful activities prevention act (UAPA)**, that allow the central government to designate individuals as terrorists, have been in the news.

- The amendments have been criticised on substantial grounds, on the basis that they vest too much **unchecked power in the central government**, and can enable social and political persecution. The current debate also throws some light on the functioning of **UAPA tribunal**.

What are UAPA tribunals? How and why they are constituted?

- The tribunals are **constituted under UAPA**.
- The role of the tribunal is **to review a ban imposed by the government**.

- **Composition Of the tribunal:** It consists of a sitting judge of the High Court.
- **Under Section 4 of the UAPA,** the UAPA Tribunal is tasked with deciding whether there exists “sufficient cause” for the association to be declared unlawful. In other words, the Tribunal must review the grounds mentioned in the notification on which the central government has formed its opinion, and examine whether those grounds are sufficient or not.

Provisions which give sweeping powers to the Centre:

- **Section 3(1)** of the UAPA authorizes the central government to declare, by notification, an association unlawful, if, in its opinion, that association is, or has become, an unlawful association.
- **Section 3 (1) and 3 (4)** require that the notification is given wide publicity and every effort is made to serve it upon the association. **Section 3(2)** requires that the same notification that declares the Association unlawful set out the grounds on which the declaration was made, while exempting the government from disclosing any facts that it considers against the public interest to disclose.

The Recent issue:

- This is the case involving the banning of **the Jamaat-e-Islami, Jammu And Kashmir** ['Jel, J&K', or 'Jamaat J&K'] by the central government, acting under the powers given to it by the UAPA.
- During the course of final arguments **three core issues emerged**. Each of these issues go to the heart of **procedural equity, fair trial and – ultimately – ensuring that there exists parity between the State and individuals or groups** in the context of the curtailment of core fundamental rights, such as the freedom of speech and association.
- At the heart of the dispute on facts between the association and the Central government is the claim of the association that the **FIRs and cases produced by the Central government before the Tribunal had no connection with it** – none of the FIRs were against the association, and none of the persons named in those FIRs were its members.

Arguments by the association:

- The notification declaring the Association unlawful **did not set out the “grounds”** or the basis for the declaration.
- What passed for “grounds” was vague and **did not contain facts** which would put the association to notice of what the case against it was.

How the Centre defends it's move?

- The central government has replied that the notification’s setting out that the association was **“supporting extremism and militancy”, “indulging in anti national and subversive activities” and activities “to disrupt the territorial integrity”** and so on, was sufficient factual detail to constitute the “grounds” for its decision, and in any case further factual details were set out in a separate background note it had supplied to the Tribunal.

Why the recent UAPA Tribunal Order, confirming the government’s ban on the Jamaat-e-Islami, Jammu and Kashmir (“Jel, J&K”), is being contested?

- Key individual rights of freedom of speech and association are at stake. These rights must be given their due.
- The rules of procedure and evidence are designed with the understanding that the State exercises a huge amount of power – and that, in a contest between the State and the individual (or a group), certain rules are needed to balance out this unequal power; this is the heart of the idea of a “fair trial.” The tribunal defends this argument.
- A close reading of UAPA Tribunal orders makes it clear that **the requirement of judicial scrutiny is little more than a parchment barrier**.
- In allowing the government vast amounts of leeway in proving its case, **tribunals depart from some of the most fundamental principles of fair procedure, and act as little more than judicial rubber stamps**.

Conclusion:

- This is not a jurisprudence that respects constitutional democracy or fundamental freedoms such as speech and association. Rather, it is a jurisprudence of the judicial rubber stamp: courts acting to legitimise and

enable governmental overreach, rather than protecting citizens and the rights of citizens against the government.

- It is a situation where in the words of a famous English judge **the judiciary has gone from “lions under the throne” to “mice squeaking under a chair in the Home Office”** – with **“consequences that the nation will one day bitterly regret”**.

Sources: the Hindu.

3. DISTRICT MINERAL FOUNDATIONS

What to Study?

- For Prelims: About DMFs, composition, funds and jurisdiction, about PMKKKY.
- For Mains: Why they should be placed under respective planning departments of the state, significance, concerns and challenges.

Context: Amendments to **District Mineral Foundation (DMF) Trust Rules, 2015**, by Chhattisgarh government has made it more inclusive, people-centric and will also empower people affected by mining in the state, according to Centre for Science and Environment (CSE), a New Delhi-based non-profit.

Background:

- Chhattisgarh became the **first state in July 2019, to amend DMF rules**.
- The new rule mandates the **inclusion of 10 Gram Sabha members directly from mining-affected areas** in the DMF Governing Council (GC).
- In Scheduled Areas, at least 50 per cent of the Gram Sabha members must be from Scheduled Tribes (ST).
- To ensure better public accountability, a two-step social audit process has been mandated.
- Provisions have also been introduced for five-year plan, which can be subjected to a third party review if the secretary of the mines department considers it to be necessary.
- The rules have also specified '**sustainable livelihood**' as a high priority issue, including for forest rights holders.

The various state DMF rules and the Pradhan Mantri Khanij Khetra Kalyan Yojana (PMKKKY) guidelines stipulate some "high priority" issues for DMFs, including:

1. Drinking water.
2. Health
3. Women and child welfare.
4. Education
5. Livelihood and skill development.
6. Welfare of aged and disabled.
7. Sanitation

Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY):

- The programme is meant to provide for the welfare of areas and people affected by mining related operations, using the funds generated by **District Mineral Foundations (DMFs)**.

About DMFs:

- DMFs were **instituted under the Mines and Minerals (Development and Regulation) (MMDR) Amendment Act 2015**.
- They are **non-profit trusts** to work for the interest and benefit of persons and areas affected by mining-related operations in such manner as may be prescribed by the State Government.
- **Jurisdiction:** Its manner of operation comes under the jurisdiction of the relevant State Government.

Objectives of the scheme:

- To implement various developmental and welfare projects/programs in mining affected areas that complement the existing ongoing schemes/projects of State and Central Government.
- To minimize/mitigate the adverse impacts, during and after mining, on the environment, health and socio-economics of people in mining districts.
- To ensure long-term sustainable livelihoods for the affected people in mining areas.

Sources: DowntoEarth.

4. NATIONAL WATER MISSION

What to study?

- For Prelims: Key features and targets of the mission, Overview of National Water Policy.

Context: National Water Mission Awards-2019 awarded.

- The awards are given to incentivise an organisation/company through awards recognising excellence in water conservation, efficient water use and sustainable water management practices.
- The awards are given in 10 categories defined under five goals of the NWM.

About National Water Mission:

- It is one of the eight missions launched under the National Action Plan on Climate Change (NAPCC) for combating the threats of global warming.
- Under the mission, the National Water Policy would be revisited in consultation with States to ensure basin level management strategies to deal with variability in rainfall and river flows due to climate change.

Goals of the National Water Mission:

- Comprehensive water data base in public domain and assessment of the impact of climate change on water resource.
- Promotion of citizen and state actions for water conservation, augmentation and preservation.
- Focused attention to vulnerable areas including over-exploited areas.
- Increasing water use efficiency by 20%.
- Promotion of basin level integrated water resources management.

Objective of the National Water Mission:

- To conserve water.
- To minimise the wastage of the water.
- To ensure equitable distribution across the country and within States through integrated water resources management.

Need of the hour:

- Using Reverse Osmosis for sea water and brackish water desalination.
- Recycle of water and reuse wherever possible.
- Technologies for water purification.
- Enhancing storage capacities in multipurpose hydro projects, and integration of drainage with irrigation infrastructures.
- Mandating water harvesting.

Major provisions under the National Water policy are:

- Envisages to establish a standardized national information system with a network of data banks and data bases.
- Guidelines for the safety of storage dams and other water-related structures.
- Regulate exploitation of groundwater.
- Setting water allocation priorities in the following order: Drinking water, Irrigation, Hydropower, Navigation, Industrial and other uses.
- The water rates for surface water and ground water should be rationalized with due regard to the interests of small and marginal farmers.
- The policy also deals with participation of farmers and voluntary agencies, water quality, water zoning, conservation of water, flood and drought management, erosion etc.

Sources: pib.

5. FRAMEWORK TO SUSTAIN INDIA'S 100% ODF STATUS

What to study?

- For Prelims: Overview of ODF status and SBM-G.
- For Mains: Significance and challenges in maintaining the status, need for sustained efforts.

Context: Union Jal Shakti Ministry's Department of Drinking Water and Sanitation (DDWS) has launched a 10-year national rural sanitation strategy to sustain India's 100 per cent Open Defecation Free (ODF).

- **Focus:** The framework, to be in place from 2019 to 2029, will ensure that people sustain their usage of toilets. It will also focus on proper implementation of solid and liquid waste management (SLWM) — plastic waste, organic waste, grey water, and faecal sludge — in rural areas.

The strategy:

- They include the retrofitting of single pit toilets to twin pits or making provisions to empty pits every five years, repair of defunct ones, and construction of soak pits for septic tanks wherever not already present.
- A district-level **training management unit (TMU)** will be set up to provide oversight and support to gram panchayats (GPs) so that they ensure the operation and maintenance of sanitation infrastructure.
- The **gram panchayats (GPs)** are also supposed to **conduct rapid assessment of water and sanitation gaps**.
- **Alternative funding:** The government funding is the primary source of financing in the sanitation sector. Alternative self-financing by gradual leveraging of community resources in the form of tariffs for ODF plus activities is also suggested.
- It will follow the same 60:40 financing model as being followed till now in Swachh Bharat. It will be finalised after the cabinet's approval.
- The framework also talks about **state-specific strategies** on menstrual hygiene management, including menstrual waste management, which may be supported under the ODF plus strategy.

Need to End Open Defecation:

- At the time Swachh Bharat Abhiyan was launched, India had 450 million people defecating in the open, which according to the World Health Organisation (WHO) accounted for 59 per cent of the 1.1 billion people in the world practising open defecation. In the absence of toilets, people tend to use open spaces like fields, bushes, forests, banks of water bodies, or other open spaces rather than using a toilet to defecate and relieve themselves.

Need of the hour:

- Merely building new toilets is not going to change the game. India needs to move beyond that and take steps towards efficient faecal sludge management for a safer environment which does not pose any threat to the health of its people.
- Post construction of toilets, the government should establish a monitoring system that makes sure that the latrines are emptied regularly when they fill up and the waste is decomposed safely, and not into nearby rivers or oceans.
- In rural areas, focus needs to be laid upon panchayati raj institutions, which can be used as a platform to promote sustainable sanitation practices and creation of public-supported frameworks of organic disposal and utilisation of human waste.

Sources: the Hindu.

Topics: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes.

1. PRADHAN MANTRI UJJWALA YOJANA (PMUY)

What to study?

- For Prelims: PMU- key features.
- For Mains: PMUY- objectives, features, significance and measures needed to sustain the momentum.

Context: Release of **8 crore PMUY connection** by Prime Minister in Sendra, Aurangabad, Maharashtra.

Why large people in India still rely on solid fuels?

- **Most people believe that food cooked on a chulha was healthier and tastier.** In contrast, rotis cooked on gas cause indigestion.
- They also **believe cooking with solid fuels was healthy for the person cooking too:** fumes purified the eyes because they caused tears, and in blowing into a traditional stove, a woman did krasrat (exercise).

What can policymakers do to achieve exclusive use of clean fuels in rural India?

- Three strategies could work: communicating the harms of solid fuels and the benefits of cleaner fuels; reducing the cost of LPG cylinder refills in rural areas; and promoting gender equality within households, particularly in cooking and related tasks.

List of measures:

- **A large anti-tobacco style campaign** communicating that solid fuels harm respiratory health may change these beliefs. Similarly, advertisements that food cooked on gas can be as tasty and healthy as food cooked on a chulha would be helpful.
- **Reducing LPG prices in rural areas**, where residents are poorer and solid fuels are easier to access, would also help. One way is to build on the targeting experience of the National Food Security Act.
- Current Ujjwala messaging, which focuses on the benefits of clean fuels for women, reinforces inequality. **Advertisements showing that gas is so good that even men can cook with it will challenge both misinformation on LPG and gender inequalities in household tasks.**

About Pradhan Mantri Ujjwala Yojana:

- It aims to provide LPG (liquefied petroleum gas) connections to poor households.
- **Who is eligible?** Under the scheme, an adult woman member of a below poverty line family identified through the Socio-Economic Caste Census (SECC) is given a deposit-free LPG connection with financial assistance of Rs 1,600 per connection by the Centre.
- **Identification of households:** Eligible households will be identified in consultation with state governments and Union territories. The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

Key objectives of the scheme are:

- Empowering women and protecting their health.
- Reducing the serious health hazards associated with cooking based on fossil fuel.
- Reducing the number of deaths in India due to unclean cooking fuel.
- Preventing young children from significant number of acute respiratory illnesses caused due to indoor air pollution by burning the fossil fuel.

What makes LPG adoption necessary?

- A large section of Indians, especially women and girls, are exposed to severe **household air pollution (HAP)** from the use of solid fuels such as biomass, dung cakes and coal for cooking.
- A report from the Ministry of Health & Family Welfare places **HAP as the second leading risk factor contributing to India's disease burden**.
- According to the World Health Organization, **solid fuel use is responsible for about 13% of all mortality and morbidity in India** (measured as Disability-Adjusted Life Years), and causes about 40% of all pulmonary disorders, nearly 30% of cataract incidences, and over 20% each of ischemic heart disease, lung cancer and lower respiratory infection.

Need of the hour:

- The PMUY is a bold and much-needed initiative, but it should be recognised that this is just a first step.
- The **real test of the PMUY and its successor programmes will be in how they translate the provision of connections to sustained use of LPG or other clean fuels such as electricity or biogas.**
- **Truly smokeless kitchens** can be realized only if the government follows up with measures that go beyond connections to actual usage of LPG. This may require concerted efforts cutting across Ministries beyond petroleum and natural gas and including those of health, rural development and women and child welfare.

Sources: the Hindu.

2. NATIONAL PENSION SCHEME FOR TRADERS AND SELF EMPLOYED PERSONS

What to study?

- For Prelims: Key features, eligibility of the scheme.
- For Mains: Need for and significance of the scheme.

Context: Launched recently.

About the scheme:

- It is a **pension scheme for the Vyaparis** (shopkeepers/retail traders and self-employed persons) with **annual turnover not exceeding Rs 1.5 crore**.
- It is a **voluntary and contributory pension scheme**.
- The enrolment under the scheme is **free of cost for the beneficiaries**.
- The enrolment is based upon **self-certification**.
- It has a provision for **minimum assured pension of Rs 3,000/- monthly on attaining the age of 60 years**.
- The Central Government shall give **50 % share of the monthly contribution and remaining 50% contribution shall be made by the beneficiary**.

Eligibility:

- Beneficiary is required to have an Aadhaar card and a saving bank/ Jan-dhan Account passbook only.
- He/ She should be within 18 to 40 years of age group.
- GSTIN is required only for those with turnover above Rs. 40 lakhs.
- The beneficiary should not be income tax payer and also not a member of EPFO/ESIC/NPS (Govt.)/PM-SYM.

Significance:

- This scheme will target enrolling 25 lakh subscribers in 2019-20 and 2 crore subscribers by 2023-2024. An estimated 3 crore Vyaparis in the country are expected to be benefitted under the pension scheme.

Sources: pib.

3. ACCESSIBLE INDIA CAMPAIGN

What to study?

- For Prelims and mains: Key features, need for and significance of the scheme.

Context: The Department of Empowerment of Persons with Disabilities (DEPwD) under Ministry of Social Justice and Empowerment has developed a Management Information System (MIS) for stakeholders of **Accessible India Campaign (AIC)**.

- The portal will bring all the nodal ministries, and States/UTs on a single platform for monitoring the progress being made against each target of AIC.

About Accessible India Campaign:

- **What is it?** Accessible India Campaign (AIC) is the nationwide flagship campaign of the Department of Empowerment of Persons with Disabilities (DEPwD), Ministry of Social Justice and Empowerment.
- **Aim:** The aim of the Campaign is to make a barrier free and conducive environment for Divyangjans all over the country. The campaign has the vision to build an inclusive society in which equal opportunities are provided for the growth and development of Persons with Disabilities (PWDs) so that they can lead productive, safe and dignified lives.
- **Implementation:** For creating universal accessibility for Persons with Disabilities, the campaign has been divided into three verticals: Built Environment; Transport and Information & Communication Technology (ICT) ecosystem.

Targets:

- Completing accessibility audit of at least 25-50 most important government buildings in 50 cities and making them fully accessible by the end of this year.
- Making 50% of all the government buildings of NCT and all the State capitals fully accessible by December 2018.
- Completing accessibility audit of 50% of government buildings and making them fully accessible in 10 most important cities/towns of States not covered in targets (i) and (ii) by December 2019.

Facts for Prelims:

- **Accessible India Campaign** is in line with the **Article 9 of UNCRPD (UN Convention on the Rights of Persons with Disabilities)** to which India is a signatory since 2007.

Sources: pib.

4. PRADHAN MANTRI MATRU VANDANA YOJANA

What to study?

- For prelims: Key Highlights of the PMMVY, funding and beneficiaries.
- For mains: Performance of the scheme, how it has helped empower women, has it met its stated objectives? Why do we need such schemes?

Context: Pradhan Mantri Matru Vandana Yojana (PMMVY), a flagship scheme of the Government for pregnant women and lactating mothers has achieved a significant milestone by crossing **one crore beneficiaries**. The total amount disbursed to the beneficiaries under the scheme has crossed Rs. 4,000 crores.

- **Top five states in implementation:** Madhya Pradesh, Andhra Pradesh, Himachal Pradesh, Dadra & Nagar Haveli and Rajasthan.

About PMMVY:

- **Pradhan Mantri Matru Vandana Yojana (PMMVY)** is a maternity benefit rechristened from erstwhile **Indira Gandhi Matritva Sahyog Yojana (IGMSY)**. The IGMSY was launched in 2010.
- The scheme is a **conditional cash transfer scheme for pregnant and lactating women**.
- It provides a **partial wage compensation** to women for wage-loss during childbirth and childcare and to provide conditions for safe delivery and good nutrition and feeding practices.
- They receive a **cash benefit of Rs. 5,000 in three installments** on fulfilling the respective conditionality, viz. early registration of pregnancy, ante-natal check-up and registration of the birth of the child and completion of first cycle of vaccination for the first living child of the family.
- **The eligible beneficiaries also receive cash incentive under Janani Suraksha Yojana (JSY)**. Thus, on an average, a woman gets Rs. 6,000.
- **Exceptions:** The maternity benefits are available to all Pregnant Women & Lactating Mothers (PW&LM) except those in regular employment with the Central Government or State Government or Public Sector Undertaking or those who are in receipt of similar benefits under any law for the time being in force.
- **Funding:** The scheme is a **Centrally Sponsored Scheme** under which cost sharing ratio between the Centre and the States & UTs with Legislature is 60:40 while for North-Eastern States & three Himalayan States; it is 90:10. It is 100% Central assistance for Union Territories without Legislature.

Need for special attention:

- **Under-nutrition** continues to adversely affect majority of women in India. In India, every third woman is undernourished and every second woman is anaemic.
- **An undernourished mother almost inevitably gives birth to a low birth weight baby**. When poor nutrition starts in-utero, it extends throughout the life cycle since the changes are largely irreversible.
- **Owing to economic and social distress** many women continue to work to earn a living for their family right up to the last days of their pregnancy.
- They **resume working soon after childbirth**, even though their bodies might not permit it, thus preventing their bodies from fully recovering on one hand, and also impeding their ability to exclusively breastfeed their young infant in the first six months.

Sources: pib.

5. DRAFT SOCIAL SECURITY CODE

What to study?

- For Prelims: Highlights of the draft.
- For Mains: need for and significance of the code.

Context: Draft social security code circulated.

Objectives of the draft:

- To amalgamate a clutch of existing laws and proposes several new initiatives including universal social security for unorganized sector workers and, insurance and health benefits for gig workers.
- To Corporatize of existing organizations like EPFO and ESIC headed by people other than the labour minister.

Key highlights of the draft:

- **Insurance, PF, life cover for unorganized sector employees:** Central Government shall formulate and notify, from time to time, suitable welfare schemes for unorganised workers on matter relating to life and disability cover; health and maternity benefits; old age protection; and any other benefit as may be determined by the central government.
- **Corporatization of EPFO and ESIC:** The pension, insurance and retirement saving bodies including EPFO and ESIC will be body corporate. Labour minister, labour secretary, the central PF commissioner and Director General of ESIC may not be by default the head of such organizations.
- **Benefits for Gig workers:** “Central Government may formulate and notify, from time to time, suitable social security schemes for gig workers and platform workers” and such schemes would encompass issues like “life and disability cover”, “health and maternity benefits”, “old age protection” and “any other benefit as may be determined by the Central Government”.
- **Maternity Benefit:** Subject to the other provisions of this Code, every woman shall be entitled to, and her employer shall be liable for, the payment of maternity benefit at the rate of the average daily wage for the period of her actual absence, that is to say, the period immediately preceding the day of her delivery, and any period immediately following that day.
- **The Code on Social Security, 2019 once in place will merge eight exiting labour laws including** Employees' Compensation Act, 1923; Employees' State Insurance Act, 1948, Employees' Provident Funds and Miscellaneous Provisions Act, 1952; Maternity Benefit Act, 1961; Payment of Gratuity Act, 1972; Cine Workers Welfare Fund Act, 1981; Building and Other Construction Workers Cess Act, 1996 and Unorganized Workers' Social Security Act, 2008.

Sources: Livemint.

6. PRADHAN MANTRI AWAS YOJANA – URBAN

What to study?

- For Prelims: PMAY- Urban- key features.
- For Mains: Significance of the scheme, challenges ahead and measures needed to achieve the target.

Context: Cumulative no. of Houses Sanctioned Under **PMAY(U)** now more than 90 Lakhs.

About PMAY- Urban:

- Launched by the **Ministry of Housing and Urban Poverty Alleviation (MoHUPA)** in Mission mode.
- It envisions **provision of Housing for All by 2022**, when the Nation completes 75 years of its Independence.

The Mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:

- **Slum rehabilitation** of Slum Dwellers with participation of private developers using land as a resource.
- **Promotion of Affordable Housing for weaker section** through **credit linked subsidy**.
- **Affordable Housing** in Partnership with Public & Private sectors.
- **Subsidy** for beneficiary-led individual house construction /enhancement.

Beneficiaries and benefits:

- The beneficiaries are **poor and people living under EWS and LIG categories in the country**.
- The government is providing an interest subsidy of 6.5% on housing loans which can be availed by beneficiaries for 15 years from start of loan date.
- The government will grant Rs 1 lakh to all the beneficiaries of the scheme. In addition, Rs 1.5 lakh will be given to all eligible urban poor who want to construct their houses in urban areas or plan to go for renovation in their existing houses.
- One can also avail loans under this scheme to build toilets in existing houses.

Ownership of houses:

- House is to be **allotted in the name of adult female member or in joint name and all houses to have toilet facility, drinking water and power supply**. Preference is given to persons with disabilities, ST/ SC/ OBCs, minorities and transgender.

Challenges ahead:

- Government has **to mobilise Rs 1 lakh crore in the next three years** for achieving its target of building 1 crore houses.
- **Other headwinds include:** unavailability of land in prime areas, low participation of private developers on account of brand dilution and bidding mechanism.
- Also **there are issues of** stringent cost and time schedules resulting in low yields, increasing construction costs due to absence of bulk sourcing of materials, and lack of new technology that impacts productivity, cost efficiency and quality.

Sources: pib.

Topics: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

1. PIL IN SUPREME COURT FOR COMMUNITY KITCHENS IN ALL STATES TO COMBAT HUNGER

What to study?

- For Prelims and mains: What are community kitchens, their significance and the need?

Context: A PIL has been filed in the Supreme Court seeking directions to all states and union territories (UTs) **to formulate a scheme for community kitchens to combat hunger and malnutrition.**

What does the PIL seek?

- Many children under the age of five die every day due to hunger and malnutrition and **this condition was violative of various fundamental rights, including the right to food and life of citizens.**
- Therefore, it is necessary to create **a national food grid for people falling outside the purview of the public distribution scheme.**

Need:

- Various schemes to combat hunger, malnutrition and the resulting starvation are in place. But, in reality, **effective implementation of the schemes was unclear and fairly limited.**
- In the interest of **justice and for entitlement of nutritious food, which has been held as a basic fundamental and human right**, in both national and international law, alike, the establishment of **community kitchens** may be directed as an added mechanism for provision of nutritious food with the intent of holistically combating eradication of hunger, malnutrition and starvation in the country, and diseases, illnesses and deaths resulting thereof.

Way ahead:

- There are various **state-funded community kitchens** being run in Tamil Nadu, Andhra Pradesh, Uttarakhand, Odisha, Jharkhand and Delhi that serve meals at subsidised rates in hygienic conditions.
- Then, there are the concepts of soup kitchen, meal centre, food kitchen or community kitchen, in other countries, where **food is offered to the hungry usually for free or sometimes at a below-market price.**

Facts:

- Food and Agriculture Report, 2018 stated that India houses 195.9 million of the 821 million undernourished people in the world, accounting for approximately 24% of the world's hungry.
- Prevalence of undernourishment in India is 14.8%, higher than both the global and Asian average.
- The most alarming figure revealed is that approximately 4500 children die every day under the age of five years in our country resulting from hunger and malnutrition, amounting to over three lakh deaths every year owing to hunger, of children alone.

Sources: the Hindu.

2. 'EAT RIGHT MOVEMENT' CAMPAIGN

What to study?

- For Prelims: Key features of the movement, what are TPCs, need for a limit.

- For Mains: Significance and the need for staying healthy, government measures to keep the country healthy and raise awareness about it.

Context: Government has launched a mass media campaign on **the Eat Right India movement**.

- This movement is aligned with the government's flagship public health programmes such as **POSHAN Abhiyaan, Anemia Mukt Bharat, Ayushman Bharat Yojana and Swachh Bharat Mission**.

About Eat Right Movement:

- It was launched by the **Food Safety and Standards Authority of India (FSSAI)**.
- The movement aims to **cut down salt/sugar and oil consumption by 30% in three years**.
- It also aims to **engage and enable citizens** to improve their health and well-being by making the right food choices.

Measures in place:

- FSSAI has put in place **robust regulatory measures under three major pillars**: Eat Safe, Eat Health and Eat Sustainably for the programme.
- FSSAI has prescribed a limit for **Total Polar Compounds (TPC)** at 25% in cooking oil to avoid the harmful effects of reused cooking oil.

Significance of the campaign:

- The country is in need of a movement on preventive health for all in the backdrop of the increasing burden of non-communicable diseases including diabetes, hypertension and heart diseases, widespread deficiencies of vitamins and minerals and rampant food-borne illnesses.
- The Eat Right India movement acts as a **crucial preventive healthcare measure to trigger social and behavioural change** through a judicious mix of regulatory measures, combined with soft interventions for ensuring awareness and capacity building of food businesses and citizens alike.

Sources: the Hindu.

3. WHO SOUTH-EAST ASIA REGION PLANS TO BANISH MEASLES, RUBELLA BY 2023

What to study?

- For Prelims: About Measles and Rubella.
- For Mains: Spread, concerns and ways to eliminate them.

Context: Member-countries of **the World Health Organisation (WHO) South-East Asia Region** have resolved to **eliminate highly infectious childhood killer diseases measles and rubella by 2023**.

- A resolution to eliminate the diseases was adopted at the **72nd session of the WHO Regional Committee for South-East Asia in Delhi**.

How the new target is to be achieved?

- By strengthening the immunisation systems for increasing and sustaining high level of population immunity against the two diseases at both the national and sub-national levels.
- By ensuring a highly sensitive laboratory supported case-based surveillance system – better evidence for appropriate planning and response.
- By mobilising political, societal and financial support to ensure the interruption of transmission of indigenous measles and rubella virus by 2023.

The need for elimination:

- Eliminating measles will prevent 500,000 deaths a year in the region, while eliminating rubella/ CRS would avert about 55,000 cases of rubella and promote health and wellbeing of pregnant women and infants.

About Measles:

- **What is It?** Measles is a highly contagious viral disease. **Spread:** Measles is transmitted via droplets from the nose, mouth or throat of infected persons.

- Initial symptoms, which usually appear 10–12 days after infection, include high fever, a runny nose, bloodshot eyes, and tiny white spots on the inside of the mouth. Several days later, a rash develops, starting on the face and upper neck and gradually spreading downwards.
- Vulnerability:** Severe measles is more likely among poorly nourished young children, especially those with insufficient vitamin A, or whose immune systems have been weakened by HIV/AIDS or other diseases.
- The most serious complications include** blindness, encephalitis (an infection that causes brain swelling), severe diarrhoea and related dehydration, and severe respiratory infections such as pneumonia.
- Prevention:** Routine measles vaccination for children, combined with mass immunization campaigns in countries with low routine coverage, are key public health strategies to reduce global measles deaths.
- Preventive efforts:** Under the Global Vaccine Action Plan, measles and rubella are targeted for elimination in five WHO Regions by 2020. WHO is the lead technical agency responsible for coordination of immunization and surveillance activities supporting all countries to achieve this goal.



- Measles, or rubeola, is a viral infection of the respiratory system. Measles is a very contagious disease that can spread through contact with infected mucus and saliva.

- Rubella is a contagious disease that mostly affects children. It causes symptoms like a rash, fever, and eye redness. It's usually mild in kids, but it can be more serious in pregnant women.

Rubella:

- It is generally a mild infection, but has serious consequences if infection occurs in pregnant women, causing **congenital rubella syndrome (CRS)**, which is a cause of public health concern. CRS is characterized by congenital anomalies in the foetus and newborns affecting the eyes (glaucoma, cataract), ears (hearing loss), brain (microcephaly, mental retardation) and heart defects, causing a huge socio-economic burden on the families in particular and society in general.

Sources: the Hindu.

4. HEPATITIS B

What to study?

- For Prelims: Causes, symptoms and prevention of the disease.
- For Mains: Concerns, spread of the disease and ways to address them.

Context: On September 3, **Bangladesh, Bhutan, Nepal and Thailand became the first four countries in the World Health Organization's southeast Asia region to have successfully controlled hepatitis B.**

- The virus is said to be **controlled when the disease prevalence is reduced to less than 1% among children less than five years of age.**

India's scenario:

- Despite the introduction of hepatitis B vaccine in the Universal Immunisation Programme in 2002 and scaling-up nationwide in 2011, about one million people in India become chronically infected with the virus every year.

- Despite the high vaccination coverage, disease prevalence in children aged less than five years has not dropped below 1%. One of the reasons for this is the sub-optimal coverage of birth dose in all infants within 24 hours of birth.

What is hepatitis?

- Hepatitis means **inflammation of the liver**. When the liver is inflamed or damaged, its function can be affected.
- Causes:** Heavy alcohol use, toxins, some medications, and certain medical conditions can all cause hepatitis. However, hepatitis is often caused by a virus. In the United States, the most common hepatitis viruses are hepatitis A virus, hepatitis B virus, and hepatitis C virus.

What is the difference between hepatitis A, hepatitis B, and hepatitis C?

- Hepatitis A, Hepatitis B, and Hepatitis C are liver infections caused by three different viruses.
- Hepatitis A is usually a short-term infection and does not become a long-term infection.
- Hepatitis B and hepatitis C can also begin as short-term infections but in some people, the virus remains in the body, and causes chronic, or lifelong, infection.
- There are vaccines to prevent hepatitis A and hepatitis B; however, **there is no vaccine for hepatitis C**.

How is hepatitis B spread?

- The hepatitis B virus is spread when blood, semen, or other body fluid infected with the hepatitis B virus enters the body of a person who is not infected.

Sources: the Hindu.

5. INDIA IODINE SURVEY 2018- 19 REPORT

What to study?

- For Prelims: Key findings of the report- top performers, bottom performers.
- For Mains: Need for and significance of iodised salt, variations across states and what needs to be done?

Context: India Iodine Survey report has been released.

- The survey was conducted by Nutrition International in collaboration with the AIIMS and the Indian Coalition for the Control of Iodine Deficiency Disorders (ICCIDD).
- The survey tested the iodine content in samples of cooking salt from households to estimate the coverage of iodised salt.
- Iodised salt** is salt with at least 15 parts per million of iodine.

Regional various:

- The northeastern States are doing very well with respect to iodised salt consumption at the household level because of the distance they have from the three salt producing centres — Gujarat, Rajasthan and Tamil Nadu.
- By and large most States get their salt from Gujarat and Rajasthan.
- Salt-producing States have access to common (or non-iodised) salt and, therefore, they start consuming it since it is readily available.

Sources: the Hindu.

Key findings:

- Gujarat produces 71% of salt in the country, followed by Rajasthan at 17% and Tamil Nadu at 11%.
- 76.3% of Indian households consumed adequately iodised salt.
- Tamil Nadu (61.9%) has the lowest consumption of iodized salt despite being the third biggest producer of salt in the country.
- It is followed by Andhra Pradesh (63.9%), Rajasthan (65.5%), Odisha (65.8%) and Jharkhand (68.8%).
- Only 13 out of 36 States have achieved Universal Salt Iodisation or have 90% of households with access to adequately iodised salt.

Need for and significance of Iodised Salt:

- Iodine is a vital **micro-nutrient** for optimal mental and physical development of human beings.
- Deficiency of iodine** can result in a range of disabilities and disorders such as goitre, hypothyroidism, cretinism, abortion, still births, mental retardation and psychomotor defects.

6. SALMONELLA

What to study?

- For Prelims and mains: What is it? Why is it a concern?

Context: MDH masalas in US have tested positive for **Salmonella**.

What is Salmonella?

- A group of **bacteria that can cause food-borne illnesses known as salmonellosis**.

How widely is it spread?

- According to estimates by the US Centers for Disease Control and Prevention (CDC), Salmonella causes 1.2 million illnesses, 23,000 hospitalisations and about 450 deaths in the United States every year.
- In a majority of these cases — roughly 1 million — food is the source of the illness.
- The World Health Organisation (WHO) identifies Salmonella as **one of four key global causes of diarrhoeal diseases**.

Symptoms:

- Nausea, diarrhoea, fever, and abdominal cramps 12-72 hours after contracting the infection.
- Usually, the illness lasts for 4-7 days, and most people recover without treatment.

Who is more vulnerable?

- According to the CDC, children under the age of 5 are at highest risk for Salmonella infection.
- Older adults and people with weakened immune systems too, are likely to have severe infections.

Spread:

- Salmonella bacteria are widely distributed in domestic and wild animals. They are prevalent in food animals such as poultry, pigs, and cattle, as well as in pets, including cats, dogs, birds, and turtles.
- Salmonella can pass through the entire food chain from animal feed, primary production, and all the way to households or food-service establishments and institutions.

Sources: Indian Express.

7. HIDDEN COST OF GLOBAL FOOD, LAND USE AT \$12 TRILLION

What to study?

- For Prelims: What is hidden cost? Key findings of the report.
- For Mains: Concerns, measures needed.

Context: Food and Land use Coalition (FOLU), a collaboration of food, farming and green research groups, has released a report on '**hidden environmental, health and poverty costs**'.

Key findings:

- **Food and land use systems are defined** as the way "land is used, food is produced, stored, packed, processed, traded, distributed, marketed, consumed and disposed of".
- **These are the leading sources of greenhouse gas emissions** (up to 30 per cent) driving climate change.
- They are **responsible for the degradation** of the world's tropical forests, grasslands, wetlands and other remaining natural habitats.
- They are also the leading cause behind the **ongoing 'sixth extinction' of biodiversity**.
- **Malnutrition leads to the largest hidden costs**: Today one-third of the world's population is malnourished; by 2030 it is expected to rise up to 50 per cent.

Concerns raised:

- The current methods of food production, consumption and land use systems **incur 'hidden' environmental, health and poverty costs estimated at almost \$12 trillion a year**.
- These hidden costs can **cause irreversible damage to key ecosystems, fundamentally undermine food security in certain regions, and increase public health costs**.
- **If action is not taken timely the costs will rise to more than \$16 trillion a year** by 2050.

- It will also put the United Nations-mandated **Sustainable Development Goals (SDGs) and Paris Agreement climate targets** out of reach.
- This can further unleash **food scarcity, disrupt markets and cause political instability**, particularly in poor countries, and **greatly affect women and children**.

The report proposes a reform agenda — centred around 10 critical transitions — of real actionable solutions:

1. Healthy diets
2. Productive and regenerative agriculture
3. A healthy and productive ocean
4. Protecting and restoring nature
5. Diversifying protein supply
6. Reducing food loss and waste
7. Local loops and linkages
8. Harnessing the digital revolution
9. Stronger rural livelihoods
10. Gender and demography

The need for reducing hidden costs:

- While an estimated \$30 billion public investment is required to deliver the transition, if strongly implemented it can result in an estimated \$1.285 trillion by 2030, and \$1.920 trillion by 2050.
- Reducing the current ‘hidden costs’ of food and land use systems would add \$5.7 trillion economic gains to society annually by 2030 and \$10.5 trillion annually by 2050.
- A reduction in public health costs of \$1.090 trillion a year by 2030 would be the biggest driver of the gain.

Sources: Down to Earth.

8. PROHIBITION OF ELECTRONIC CIGARETTES ORDINANCE

What to study?

- For Prelims and Mains: e-cigarettes- concerns, effects on health, need for regulation, challenges associated and measures needed.

Context: Cabinet approves Promulgation of the **Prohibition of Electronic Cigarettes (production, manufacture, import, export, transport, sale, distribution, storage and advertisement) Ordinance, 2019**.

Upon promulgation of the Ordinance:

- Any production, manufacturing, import, export, transport, sale (including online sale), distribution or advertisement (including online advertisement) of e-cigarettes shall be a cognizable offence.
- It shall be punishable with an imprisonment of up to one year or fine up to Rs. 1 lakh or both for the first offence; and imprisonment of up to three years and fine up to Rs. 5 lakh for a subsequent offence.
- Storage of electronic-cigarettes shall also be punishable with an imprisonment up to 6 months or fine up to Rs 50,000 or both.
- The owners of existing stocks of e-cigarettes on the date of commencement of the Ordinance will have to suomoto declare and deposit these stocks with the nearest police station.

Implementation:

- The Sub-Inspector of Police has been designated as the Authorized Officer to take action under the Ordinance.
- The Central or State Governments may also designate any other equivalent officer(s) as Authorized Officer for enforcement of the provisions of the Ordinance.

What are Electronic-cigarettes?

- Battery-operated devices that produce **aerosol by heating a solution containing nicotine**, which is the addictive substance in combustible cigarettes.
- **These include** all forms of Electronic Nicotine Delivery Systems, Heat Not Burn Products, e-Hookah and the like devices.

Why prohibit?

- Their use has increased exponentially and has acquired epidemic proportions in developed countries, especially among youth and children.
- Apart from nicotine, e-cigarettes may also be used for delivery of other psychoactive substances.
- Widespread use and unchecked proliferation of e-cigarettes and the like devices would seriously undermine and derail Government's efforts to reduce the prevalence of tobacco use.

Significance of the decision:

- The decision to prohibit e-cigarettes will help protect population, especially the youth and children, from the risk of addiction through E-cigarettes.
- Enforcement of the Ordinance will complement government's efforts for tobacco control and will help in reduction of tobacco use and reduction in associated economic and disease burden.
- The WHO has also urged member countries to take appropriate steps including prohibiting these products.

Challenges ahead:

- **Drugs Consultative Committee ("DCC")** has recommended a complete ban on the manufacture and import of ENDS under **sections 26A and 10A of the Drugs and Cosmetics Act, 1940**.
- Interestingly, the Delhi High Court and the Bombay High Court in their orders dated 18 March 2019 and 25 July 2019 respectively have held that ENDS are not drugs and therefore cannot be banned under the **Drugs and Cosmetics Act, 1940** and hence no proceedings can be initiated against the manufacturers, sellers and importers of ENDS.
- There is, therefore, a **clear inconsistency and conflict when it comes to the stand taken by the Central government and the courts**.

Conclusion:

- If anything is per se harmful it should never be allowed in the interest of public health. At the same time, in the absence of clear scientific evidence, anything which is less harmful or not harmful cannot be banned when something else which is far more harmful is being allowed.

Sources: pib.

9. REPORT ON MALNUTRITION

What to study?

- For Prelims: Key findings of the report.
- For Mains: Concerns, challenges and ways to address them.

Context: Report on the **first comprehensive estimate of disease burden due to child and maternal malnutrition** and the trends of its indicators in every State from 1990 has been released.

- It was published by **India State-Level Disease Burden Initiative**.

Key findings:

- Overall under-five death rate and the death rate due to malnutrition has decreased substantially from 1990 to 2017, but **malnutrition is still the leading risk factor for death in children under five years**, and is also the leading risk factor for disease burden for all ages considered together in most States.
- **Disability-adjusted life year (DALY) rate** attributable to malnutrition in children varies 7-fold among the States and is highest in Rajasthan, Uttar Pradesh, Bihar and Assam, followed by Madhya Pradesh, Chhattisgarh, Odisha, Nagaland and Tripura.
- Among the malnutrition indicators, **low birth weight is the biggest contributor to disease burden** followed by child growth failure which includes stunting, underweight and wasting.

State-wise data:

- **Incidence of low birth weight:** 21 per cent in India in 2017, ranging from 9 per cent in Mizoram to 24 per cent in UP. The annual rate of reduction was 1.1 per cent in India between 1990 and 2017, ranging from 3.8 per cent in Sikkim to 0.3 per cent in Delhi.

- **Incidence of child stunting:** Incidences of stunting among children was 39 per cent in India in 2017. This ranged from 21 per cent in Goa to 49 per cent in UP, and was generally the highest among socio-economically backward states of Bihar, Chhattisgarh, Jharkhand, Odisha, Rajasthan, MP and UP.
- **Incidence of children being underweight:** In 2017, 33 per cent of the children in India were reportedly underweight, ranging from 16 per cent in Manipur to 42 per cent in Jharkhand. The annual rate of reduction was 3.2 per cent in India between 1990 and 2017, ranging from 5.4 per cent in Meghalaya to 1.8 per cent in Delhi.
- **The incidences of anaemia among children** was 60 per cent in India in 2017, ranging from 21 per cent in Mizoram to 74 per cent in Haryana.
- **The annual rate of reduction was 1.8 per cent** in India between 1990 and 2017, which varied from 8.3 per cent in Mizoram to no significant reduction in Goa.

Way ahead:

- These findings highlight that there are wide variations in the malnutrition status between the States. It is important therefore to plan the reduction in malnutrition in a manner that is suitable for the trends and context of each State.

Facts for Prelims:

- **India State-Level Disease Burden Initiative** is a joint initiative of the Indian Council of Medical Research (ICMR), Public Health Foundation of India, and Institute for Health Metrics and Evaluation in collaboration with the Ministry of Health and Family Welfare along with experts and stakeholders associated with over 100 Indian institutions, involving many leading health scientists and policy makers from India.

Sources: the Hindu.

10. 'UMMID' INITIATIVE

What to study?

- For Prelims: Key features of the initiative.
- For Mains: Significance and the need for initiative.

Context: Government launches 'UMMID' initiative to tackle inherited genetic diseases of new born babies.

UMMID initiative aims to:

- Establish NIDAN (National Inherited Diseases Administration) Kendras to provide counselling, prenatal testing and diagnosis, management, and multidisciplinary care in Government Hospitals wherein the influx of patients is more.
- Produce skilled clinicians in Human Genetics.
- Undertake screening of pregnant women and new born babies for inherited genetic diseases in hospitals at aspirational districts.

UMMID (Unique Methods of Management and treatment of Inherited Disorders) initiative:

- Department of Biotechnology has started the UMMID Initiative which is designed on the concept of 'Prevention is better than Cure'.
- UMMID aims to create awareness about genetic disorders amongst clinicians and establish molecular diagnostics in hospitals so that the fruits of developments in medical genetics reach the patients in India.

Need for and significance of the initiative:

- In India's urban areas, congenital malformations and genetic disorders are the third most common cause of mortality in newborns. With a very large population and high birth rate, and consanguineous marriage favored in many communities, prevalence of genetic disorders is high in India.
- **Establishment of patient care services for genetic disorders** is the need of the time.

Sources: pib.

11. POSHAN MAAH (NATIONAL NUTRITION MONTH)

What to study?

- For Prelims: Posan Maah and POSHAN Abhiyan – features.
- For Mains: Significance of the campaign and government efforts to address malnutrition in the country.

Context: The Government is celebrating the month of September, 2019 as the National Nutrition Month under the Posan Abhiyan.

About POSHAN Abhiyan:

- POSHAN Abhiyan (National Nutrition Mission) was launched on 8th March, 2018.
- **Objectives:** The programme through use of technology, a targeted approach and convergence strives to reduce the level of Stunting, Under-nutrition, Anaemia and Low Birth Weight in Children, as also, focus on Adolescent Girls, Pregnant Women & Lactating Mothers, thus holistically addressing malnutrition.
- **Aims:** POSHAN Abhiyan aims to ensure service delivery and interventions by use of technology, behavioural change through convergence and lays-down specific targets to be achieved across different monitoring parameters over the next few years.
- **Coverage:** To ensure a holistic approach, all 36 States/UTs and 718 districts will be covered in a phased manner by the year 2020.

Sources: pib.

About Poshan Maah (National Nutrition Month):

- **Objective:** To take the messages of POSHAN to the grass root level.
- The programme is an initiative of **WCD Ministry and NITI Aayog** is supported by 18 line Ministries/Departments/Government Organizations.
- It seeks to synergise all efforts by leveraging technology and intends to take nutrition awareness to the level of Jan Andolan or People's Movement.
- The programme focuses on 8 themes – Antenatal Care, Optimal Breastfeeding (Early & Exclusive), Complementary Feeding, Anemia, Growth Monitoring, Girls-education, diet, right age of Marriage, Hygiene & Sanitation, Food Fortification.

12. 'TB HAREGA DESH JEETEGA' CAMPAIGN

What to study?

- For Prelims and Mains: TB related facts, concerns for India and what needs to be done to achieve the proposed target?

Context: 'TB Harega Desh Jeetega Campaign' has been launched with an aim to eliminate tuberculosis from India.

Background:

- United Nations has marked 2030 as a global target to eliminate TB worldwide but the Government of India has made 2025 as its target to eliminate tuberculosis from the country.

Why is Tuberculosis a major cause of concern?

- TB is one of the leading causes of death worldwide and the leading cause from a single infectious agent, ranking above HIV/AIDS.
- TB is an infectious disease caused by the **bacillus Mycobacterium tuberculosis**.
- It typically affects the lungs (pulmonary TB) but can also affect other sites.
- The disease is spread when people who are sick with pulmonary TB expel bacteria into the air, for example by coughing.
- Broader influences on the TB epidemic include levels of poverty, HIV infection, under nutrition and smoking.
- Diagnostic tests for TB disease include – Rapid molecular test, Sputum smear microscopy, Culture-based methods
- Without treatment, the mortality rate from TB is high.

About 'TB Harega Desh Jeetega' Campaign:

- **Campaign aims to** improve and expand the reach of TB care services across the country, by 2022.
- **Three pillars of the campaign-** clinical approach, public health component and active community participation.
- **Supporting aspects of the campaign** – patient support, private sector engagement, political and administrative commitment at all levels.
- **The government will ensure** that all patients, at private or public hospitals, receive free-of-cost and high-quality TB care.

SDG:

- The consolidated goal on health is **SDG 3**. One of these targets, (**Target 3.3**), explicitly mentions TB.
- **SDG 3 also includes a target (Target 3.8)** related to universal health coverage (UHC) in which TB is explicitly mentioned. This includes an indicator on the coverage of essential prevention, treatment and care interventions.

India TB report 2019- key findings:

- The number of HIV-infected people who go on to develop Tuberculosis (TB) is increasing in India.

- TB is the leading cause of morbidity and mortality among People Living with HIV (PLHIV). This group is 21 times more likely to develop TB than persons without the virus.
- India is the third-highest HIV burden country in the world, with an adult prevalence of 0.22 per cent.
- India ranks second in the world as far as TB-related mortality is concerned.
- The highest percentage of patients who tested positive for TB and were also infected with HIV came from Nagaland (15.6 per cent), followed by Karnataka (10 per cent).
- The co-morbidity of TB don't come in form of HIV only. Diabetes and tobacco-related ailments too play a role.
- Overall, the TB burden in India is highest in Uttar Pradesh.
- Percentage of pediatric tuberculosis (TB among the population aged less than 15 years) cases have also slightly gone up.

Sources: pib.

13. NATIONAL EDUCATIONAL ALLIANCE FOR TECHNOLOGY (NEAT) SCHEME

What to study?

- For Prelims: Key features of the scheme.
- For Mains: Need for and significance of the scheme, usage of technology for better learning outcomes.

Context: Ministry of HRD announces National Educational Alliance for Technology (NEAT) Scheme for using better technology for better learning outcomes in Higher Education.

- The objective is to **use Artificial Intelligence** to make learning more personalised and customised as per the requirements of the learner.

How it works?

- **MHRD would act as a facilitator** to ensure that the **solutions are freely available** to a large number of economically backward students.
- MHRD would **create and maintain a National NEAT platform** that would provide one-stop access to these technological solutions.
- **EdTech companies would be responsible for developing solutions** and manage registration of learners through the NEAT portal.
- **They would be free to charge fees** as per their policy.
- As their contribution towards the National cause, **they would have to offer free coupons to the extent of 25% of the total registrations** for their solution through NEAT portal.
- **MHRD would distribute the free coupons** for learning to the most socially/economically backward students.
- **AICTE would be the implementing agency** for NEAT programme.

Sources: Pib.

14. RECOGNITION OF PRIOR LEARNING – RPL

What to study?

- For Prelims: What is RPL?
- For Mains: Need for and significance of RPL, Skill gaps and ways to address them.

Context: Minister, Skill Development and Entrepreneurship distributes certificates to **RPL trainees under Pradhan Mantri Kaushal Vikas Yojana**.

- More than 2 million candidates across the country have received RPL certification under the PMKVY.

About Recognition of Prior Learning – RPL:

- RPL is a key element under **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** scheme of the Ministry of Skill Development and Entrepreneurship (MSDE).

The objectives of RPL are:

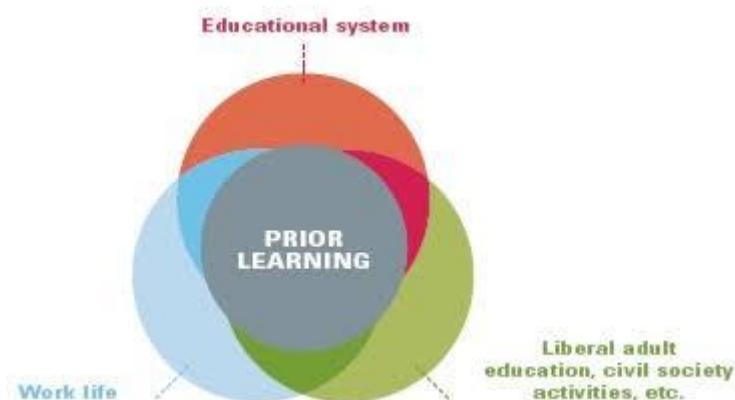
- Align the competencies of the unregulated sectors of the country with the National Skills Qualification Framework
- Enhance the chances of employment of individuals and provide them with more options for higher education.

- Reduce the inequalities that are present due to the privileges given to some types of skills and knowledge over others.

Significance and the need for RPL:

- A huge section of India's unorganized workforce are **unskilled and semi-skilled**. Most of them pick up skills and knowledge in an informal set up by observing people or working under their guidance or through complete self-learning.
- As a result, even though they manage to get a job and earn a decent wage or salary, they **may not be able to improve their skills**.
- This **affects their productivity and quality of output**.
- **Recognition of Prior Learning (RPL)** can help them **get assessed and certified on their current competencies as per NSQF levels**.
- RPL also shows them a **path to bridge their current knowledge and skill levels to reach a competency level or go for higher skills for professional growth**.

Sources: pib.



15. AISHE REPORT

What to study?

- For Prelims: Key findings of the report.
- For Mains: Concerns, challenges ahead and measures to address them.

Context: All India Survey on Higher Education (AISHE) report for 2018-19 was recently released by the HRD ministry.

Background:

- The survey, undertaken as an annual, web-based, pan-India exercise on the status of Higher Education since 2010-11, covers all the Higher Educational Institutions in the country
- The survey collects data on several parameters like teachers, student enrolment, programmes, examination results, education finance, infrastructure, etc.

Key findings:

- **Gender gap narrowing.**
- **More Girls in two states:** In Uttar Pradesh and Karnataka, there are now more females in the age group of 18-23 enrolling for higher education than male students.
- **Female enrolment improved** from 47.6% in 2017-18 to 48.6% in 2018-19.
- **The gross enrolment ratio (GER)** increased marginally – from 25.8 in 2017-18 to 26.3 in 2018-19.
- **In absolute terms, enrolment** increased from 3.66 crore to 3.74 crore students in the same period. **GER for SCs** has also shown a growth from 21.8 to 23.0 and **STs** from 15.9 to 17.2.
- **Number of universities** has grown from 903 in 2017-18 to 993 in 2018-19 and total HEIs (higher educational institutions) from 49,964 to 51,649 in the same period.
- **Number of faculty** has also increased from 13.88 lakh to 14.16 lakh.
- **Preferred stream at PG level:** While one-third of undergraduate students are enrolled in humanities, management seems to be a preferred stream at the postgraduate (PG) level. Science and engineering technology registered relatively more enrolment in M. Phil and Ph.D programmes.
- **Preferred stream at the UG level,** 35.9% of the total enrolment was in arts/ humanities/social science, just 16.5% students are pursuing science, followed by commerce with 14.1%. Engineering is the fourth choice.

Sources: the Hindu.

16. INSTITUTES OF EMINENCE SCHEME

What to study?

- For Prelims and Mains: Institutes of Eminence Scheme- features and significance.

Context: The Human Resource Development Ministry has awarded the status of **Institute of Eminence** to the IIT-Madras, the IIT-Kharagpur, Delhi University, Benares Hindu University and the University of Hyderabad.

- Four private universities** — the Vellore Institute of Technology, Amrita Vishwa Vidyapeetham, Jamia Hamdard University and the Kalinga Institute of Industrial Technology — were issued **Letters of Intent** to grant them the status. The new greenfield Bharti Institute, a project of Airtel's Satya Bharti Foundation, has also been issued the letter.

What next?

- Each university will be required to sign a Memorandum of Understanding with the Ministry, laying out its plan **to achieve the objective of becoming a world-class institution**.
- The public institutions on the list will then be **eligible for a government grant of ₹1,000 crore**.

What is Institutions of Eminence scheme?

- The institutes of eminence scheme under the **Union human resource development (HRD) ministry** aims to **project Indian institutes to global recognition**.
- The selected institutes will **enjoy complete academic and administrative autonomy**.
- The selection shall be made through **challenge method mode by the Empowered Expert Committee constituted for the purpose**.
- Eligibility:** Only higher education institutions currently placed in the top 500 of global rankings or top 50 of the National Institutional Ranking Framework (NIRF) are eligible to apply for the eminence tag.
- The private Institutions of Eminence can also come up as greenfield ventures**-provided the sponsoring organisation submits a convincing perspective plan for 15 years.

Implications:

- Institutions with the eminence tag would be allowed greater autonomy without having to report to the University Grants Commission (UGC).
- They would be able to admit foreign students and recruit faculty from abroad, and follow a flexible course and fee structure to enable them to vault to the ranks of the top global institutions.

Need for world-class institutes:

- India lacks world-class universities according to international rankings, and Indian academics, compared internationally, are rather poorly paid. Students also suffer an immense shortage of places in top academic institutions and throughout the higher education system. India today educates only half as many young people from the university age group as China and ranks well behind most Latin American and other middle-income countries.

Sources: pib.

17. AICTE'S MARGADARSHAN AND MARGADARSHAK SCHEME

What to study?

- For Prelims and mains: Key features and significance of the schemes.

Margadarshan:

- Under this scheme, institutions having good accreditation record / highly performing institutions are supposed to mentor relatively newer 10 – 12 potential institutions.
- Best practices in teaching learning process followed in mentor institute are diffused to mentee institutions.
- These institutions are also provided funding upto Rs. 50 lakhs (Rupees Fifty Lakhs Only) per institution over a period of three years in instalments for carrying out various activities like trainings, workshops, conferences and travel.

Margdarshak:

- Under this scheme, mentor teachers or Margdarshaks who are either serving or superannuated but willing and motivated with good knowledge of accreditation and who can devote adequate time to make required visits to these Institutions are identified.
- These Margdarshaks will regularly visit to the mentee institutions, stay on their campus and guide them for their improvement in quality so that institutions are able to get accreditation by NBA.

Selection of Mentee Institutes:

- In the 1st phase, institutes having student enrolment of 70% or more and willing to get mentoring through AICTE's Margadarshaks, but are not yet accredited are provided Margadarshaks. Remaining institutes can be covered in the subsequent phases. Willingness of mentee institutes is taken. However, response giving willingness to be a Mentee institute has been received from 400 institutes only to date.

Criteria for Margadarshaks are:

- Must be a Ph.D.
- Should be from Technical Education (Engg.) Domain
- Min experience 20 years; Not less than 5 years in academics And
- Designation not less than Professor if from AICTE approved institution Or
- Not less than Associate Professor if from IIT/NIT And
- Minimum 10 Research Publications Or
- Minimum 05 Ph.D. Guidance Or
- Minimum 2 Patents Or
- Minimum 2 Books written And
- Member NBA visit team / NAAC visit team Or
- Participated in accreditation of his/her own department at least for 2 cycles
- Persons from industry with passion for education & who are NBA/NAAC team members
- Applicants should have time to visit institutes

Sources: pib.

Topics: Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

1. 'BUILD FOR DIGITAL INDIA' PROGRAMME

What to study?

- For Prelims and mains: Key features and significance of the programme.

Context: The Ministry of Electronics and Information Technology (MeitY) and Google have signed a statement of intent to roll-out 'Build for Digital India' programme.

Key features of the programme:

- The programme will give engineering students a platform to develop market-ready, technology-based solutions that address key social problems.
- Applicants will take part in online and offline learning opportunities on key technologies such as machine learning, cloud and android.
- These will be offered through Google's Developer Student Club network and other Google Developer networks.
- Google will also offer mentorship sessions in product design, strategy and technology to the most promising products and prototypes.

Significance:

- This initiative will motivate college students across India to innovate and produce some good technology solutions for major social challenges of India.

- The programme will provide great exposure to students in dealing with real world problems and develop deeper understanding of how newer technologies can be used to solve them.
- Advanced new technologies such as machine learning and AI can help address at scale some of the toughest social challenges that India faces today.

Sources: pib.

2. ATAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS (ARIIA)

What to study?

- For Prelims and Mains: Features and significance.

Context: Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020 has been launched.

About ARIIA:

- ARIIA considers all major indicators which are commonly used globally to rank most innovative education institutions/ universities in the world.
- More than quantity, ARIIA will focus on quality of innovations and will try to measure the real impact created by these innovations nationally and internationally.

ARIIA will primarily focus on 5 main parameters:

- Budget Expenses and Revenue generated through Innovation and entrepreneurship development.
- Facilitating access to advance centres / facilities and entrepreneurial support system.
- Idea to Entrepreneurship.
- Development of Innovation Ecosystems Supported through Teaching & Learning.
- Best innovative solutions Developed In-house for Improving Governance of Your Institution.

Significance of ARIIA:

- Inspire Indian institutions to reorient their mind-set and build ecosystems to encourage high quality research, innovation and entrepreneurship.
- Set tone and direction for institutions for future development for making them globally competitive and in forefront of innovation.

Need for such a tool:

- For India to emerge as a global innovation hub, the youth of our country, especially in higher education institutions (HEIs) need to play a crucial role to create a sustainable innovation ecosystem. Hence, ideally all HEIs should have a comprehensive and functional mechanism to convert research into innovations.
- This ecosystem will encourage, inspire and nurture young students by exposing them to new ideas and processes resulting in innovative activities in their formative years.

Sources: pib.

3. GOVERNMENT E MARKETPLACE (GEM)

What to study?

- For Prelims: About GeM and it's features.
- For Mains: Significance and the need for GeM.

Context: GeM and Punjab Government sign MoU for Setting up Project Management Unit.

About GeM:

- **What is it?** GeM is a state-of-the-art national public procurement platform of Ministry of Commerce and Industries, that has used technology to remove entry barriers for bonafide sellers and has created a vibrant e-marketplace with a wide range of goods and services.
- **Aim:** GeM aims to enhance transparency, efficiency and speed in public procurement.
- **Features:** It facilitates online procurement of common use Goods & Services required by various Government Departments / Organisations / PSUs. It provides the tools of e-bidding, reverse e-auction and demand aggregation to facilitate the government users, achieve the best value for their money.

Sources: pib.

Key Features



4. JAN SOOCHNA PORTAL-2019

What to study?

- For Prelims and mains: Key features and significance of the portal.

What is it? It is the **first-ever public information portal** launched in Rajasthan.

- **Aim:** To provide information about government authorities and departments suo motu to the public in the true spirit of the Right To Information Act.
- **Significance:**
- The portal would ensure compliance with **Section 4(2) of the RTI Act** mandating the public authorities to disclose information in the public domain, so that the people need not file applications under the law to obtain information

Sources: the Hindu.

5. COMMUNITY RADIO STATIONS

What to study?

- For Prelims: What are Community radio stations.
- For Mains: Significance of community radio stations and challenges faced by them.

Context: 118 new **Community Radio Stations** to be set-up.

What are CRS?

- **Community Radios** are small (low power) FM radio stations with a coverage area of around 10-15 Km radius, depending on the geography of the area.
- **CRS play a significant role** in dissemination of agriculture related information, government schemes for people's welfare, weather forecast etc.
- Today, **there are more than 180 community radio stations across India**, broadcasting in languages like Bundelkhandi, Garhwali, Awadhi and Santhali — tongues that typically find little or no space on television.

Challenges to the Community Radio:

- Lack of journalistic and technical skills and thus a consistent demand for training.
- Community Radio derives its strength and popularity from **community participation**. In practise participation is harder than it seems, because it is labour intensive, requires the right attitude, skills and mobile equipment.
- Without proper management skills, as well as some knowledge of financial management and income generation, it is very hard for Community Radio to survive without donor funding.
- **Community Radio is by definition relatively small and often situated in locations where basic services, like a constant supply of electricity, are lacking.** Due to these conditions equipment suffers and needs to be vigorously maintained and/or regularly replaced.
- **Absence of a clear regulatory framework** in which Community Radio operates.

Eligibility to apply for a Community Radio Station:

- **As per the 2006 policy** of the Government, an organisation desirous of operating a Community Radio Station (CRS) must be able to satisfy and adhere to the following principles:
- It should be explicitly constituted as a '**non-profit**' organisation and should have a proven record of at least three years of service to the local community.
- The Community Radio Station should serve a specific well-defined local community.
- The ownership and management structure should be such that it reflects the community which it serves.
- It should only broadcast programmes that cater to the educational, developmental, social and cultural needs of the community.
- The organization must be a **Legal Entity**, it should be registered (under the registration of Societies Act or any other such act relevant to the purpose).

Regarding the content, the two important provisions made are as follows:

- At least 50% of content shall be generated with the participation of the local community, for which the station has been set up.
- Programmes should preferably be in the local language and dialect(s).
- The **CRS license thus given by the government entitled them to operate a 100-watt (Effective Radiated Power)** radio station, with a coverage area of approximately a 12-km radius. A maximum antenna height of 30 meters is allowed.

Sources: the Hindu.

Topics: Development processes and the development industry the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.

1. NORTH EASTERN REGIONAL AGRICULTURAL MARKETING CORPORATION LIMITED (NERAMAC)

What to study?

- For Prelims: Key features and objectives of NERAMAC.
- For Mains: Significance and challenges faced by NE region and ways to address them.

Context: Foundation stone of North Eastern Regional Agricultural Marketing Corporation Limited (**NERAMAC**) Marketing complex was recently laid in Guwahati, Assam

About NERAMAC:

- The NERAMAC is a **pioneer marketing organization in the field of Agri-Horti sector of the North-eastern region**, involved in supporting farmers right from the fields and up to the markets to the end consumers through registered FPO/FPCs.
- It was incorporated in the year 1982 as a Government of India Enterprise and having its registered office at Guwahati and **operating under the administrative control of the Ministry of Development of North Eastern Region (DoNER)**.

Sources: pib.

2. SCIENTIFIC SOCIAL RESPONSIBILITY (SSR) POLICY

What to study?

- For Prelims: Key features of the draft policy.
- For Mains: Need for and significance of the policy.

Context: India is going to be possibly the first country in the world to implement a **Scientific Social Responsibility (SSR) Policy** on the lines of Corporate Social Responsibility (CSR). A draft of the new policy has been made available by the Department of Science and Technology (DST).

Aims:

- To encourage science and technology (S&T) institutions and individual scientists in the country to proactively engage in science outreach activities to connect science with the society.
- To harness latent potential of the scientific community for strengthening linkages between science and society, and for making S&T ecosystem vibrant.
- To develop a mechanism for ensuring access to scientific knowledge, transferring benefits of science to meet societal needs, promoting collaborations to identify problems and develop solutions.

Highlights of the draft:

- Under the proposed policy, individual scientists or knowledge workers will be required to devote at least 10 person-days of SSR per year for exchanging scientific knowledge to society.
- It also recognises **the need to provide incentives for outreach activities** with necessary budgetary support.
- It has also been proposed to give **credit to knowledge workers/scientists for individual SSR activities** in their annual performance appraisal and evaluation.
- No institution would be allowed to outsource or sub-contract their SSR activities and projects.
- **The draft defines SSR as** “the ethical obligation of knowledge workers in all fields of science and technology to voluntarily contribute their knowledge and resources to the widest spectrum of stakeholders in society, in a spirit of service and conscious reciprocity”.
- **A central agency** will be established at DST to implement the SSR. Other ministries would also be encouraged to make their own plans to implement SSR as per their mandate.

Need for SSR:

- When most research is being done by using taxpayers' money, the scientific establishment has an ethical obligation of “giving back” to the society. SSR is not only about scientific impact upon society but also about the social impact upon science. SSR would therefore strengthen the knowledge ecosystem and bring efficiencies in harnessing science for the benefit of society.

Sources: Down to Earth.

3. FCRA AND FOREIGN FUNDING

What to study?

- For Prelims: FCRA guidelines on foreign funding to NGOs, eligibility.
- For Mains: Misuse of foreign funds, issues and the need for stringent measures to prevent the misuse of foreign funds.

Context: The Ministry of Home Affairs has notified new rules for those receiving foreign funding.

As per the new rules:

- **Every member of an NGO must now, under oath, through an affidavit,** certify that they have never been involved in “diverting” foreign funds or propagating “sedition” or “advocating violent means”.
- Earlier, the applicant or director-level person was to give this declaration but now all members of the NGO need to be given this declaration. Earlier, as per the market value of the gift item in India was Rs. 25,000, now it has been raised to Rs. one lakh.
- **It is mandatory for the office bearers and key functionaries and members of the NGOs to certify that they have not been “prosecuted or convicted” for “conversion” from one faith to another and for creating “communal tension and disharmony”.**

Regulation of Foreign Funding:

- The **Foreign Contribution (Regulation) Act, 2010** and rules framed under it (the “FCRA” or “Act”) regulate the receipt and usage of foreign contribution by non-governmental organisations (“NGOs”) in India.
- Since the Act is internal security legislation, despite being a law related to financial legislation, it **falls into the purview of Home Ministry and not the Reserve Bank of India (RBI)**.

Scope and objective of FCRA:

- The intent of the Act is to prevent use of foreign contribution or foreign hospitality for any activity detrimental to the national interest.
- It has a very wide scope and is applicable to a natural person, body corporate, all other types of Indian entities (whether incorporated or not) as well as NRIs and overseas branches/subsidiaries of Indian companies and other entities formed or registered in India. It is implemented by the Ministry of Home Affairs, Government of India.

In order to achieve the above objective, the Act:

- Prohibits acceptance and use of foreign contribution or foreign hospitality by a certain specified category of persons such as a candidate for election, judge, journalist, columnist, newspaper publication, cartoonist and others.
- Regulates the inflow to and usage of foreign contribution by NGOs by prescribing a mechanism to accept, use and report usage of the same.

Definition of foreign contribution:

- It defines the term ‘foreign contribution’ to include currency, article other than gift for personal use and securities received from foreign source. While foreign hospitality refers to any offer from a foreign source to provide foreign travel, boarding, lodging, transportation or medical treatment cost.

Acceptance of foreign funds:

- The Act permits only NGOs having a definite cultural, economic, educational, religious or social programme to accept foreign contribution, that too after such NGOs either obtain a certificate of registration or prior permission under the Act.

Registration and prior approval under FCRA:

- In order to be registered under the FCRA, an NGO must be in existence for at least three years and must have undertaken reasonable activity in its field for which the foreign contribution is proposed to be utilised. Further, it must have spent at least INR 1,000,000 over three years preceding the date of its application on its activities.
- The registration certificate is valid for a period of five years and must be thereafter renewed in the prescribed manner.
- NGOs not eligible for registration can seek prior approval from FCRA for receiving foreign funding. This permission is granted only for a specific amount of foreign funding from a specified foreign source for a specific purpose. It remains valid till receipt and full utilisation of such amount.

The Act imposes various conditions on the use of foreign funds and some of them are as follows:

- All funds received by a NGO must be used only for the purpose for which they were received.
- Such funds must not be used in speculative activities identified under the Act.
- Except with the prior approval of the Authority, such funds must not be given or transferred to any entity not registered under the Act or having prior approval under the Act.
- Every asset purchased with such fund must be in the name of the NGO and not its office bearers or members.

Reporting requirement:

- Every NGO registered or having prior approval under the Act must file an annual report with the Authority in the prescribed form. This report must be accompanied by an income and expenditure statement, receipt and payment account, and balance sheet for the relevant financial year. For financial years where no foreign contribution is received, a ‘NIL’ report must be furnished with the Authority.

How to ensure transparency?

- A **National Accreditation Council** consisting of academicians, activist, retired bureaucrats should be made to ensure compliance by NGOs.
- There should be **better coordination** between Ministries of Home Affairs and Finance in terms of monitoring and regulating illicit and unaccounted funds.
- A **regulatory mechanism to keep a watch on the financial activities of NGOs and voluntary organizations** is the need of the hour.
- Citizens today are keen to play an active role in processes that shape their lives and it is important that their participation in democracy go beyond the ritual of voting and should include promotion of social justice, gender equity, inclusion etc.

Sources: the hindu.

4. AMBIT OF RTI EXPANDED

What to study?

- For Prelims: Features of RTI Act.
- For Mains: Significance and the need for reforms.

Context: Supreme Court of India in its recent judgment has held that **Non-governmental organisations (NGOs) "substantially" financed by the government fall within the ambit of the Right to Information Act.**

What has the Court said?

- NGOs which receive considerable finances from the government or are essentially dependent on the government fall under the category of "public authority" defined in Section 2(h) of the RTI Act of 2005.
- This means that they have to disclose vital information, ranging from finances to hierarchy to decisions to functioning, to citizens who apply under RTI.
- An NGO may also include societies which are neither owned or controlled by the government, but if they are significantly funded by the government, directly or indirectly, they come under the RTI Act.
- **The court defined "substantial" as a "large portion."** It does not necessarily have to mean a major portion or more than 50%. No hard and fast rule can be laid down in this regard. Substantial financing can be both direct or indirect. If government gives land in a city free of cost or on heavy discount to hospitals, educational institutions or any such body, this in itself could also be substantial financing, the judgment explained.

Sources: the Hindu.

5. NATIONAL SERVICE SCHEME

What to study?

- For Prelims: What is NSS?
- For Mains: Significance and the need for NSS.

Context: President of India presents **National Service Scheme Awards**.

The broad objectives of NSS are to:

- Understand the community in which they work.
- Understand themselves in relation to their community.
- Identify the needs and problems of the community and involve them in problem solving process.
- Develop among themselves a sense of social and civic responsibility.
- Utilize their knowledge in finding practical solution to individual and community problems.
- Develop competence required for group living and sharing of responsibilities.
- Gain skills in mobilizing community participation.
- Acquire leadership qualities and democratic attitude.
- Develop capacity to meet emergencies and natural disasters.

About National Service Scheme (NSS):

- It is a **Central- Sector scheme**.
- Conducted by the **Ministry of Youth Affairs and Sports**.
- Launched in Gandhiji's Centenary year in **1969**.
- **Background:** The University Grants Commission (UGC) headed by Dr. Radhakrishnan recommended introduction of national service in the academic institutions on a **voluntary basis**.
- **Aim:** To develop healthy contacts between the students and teachers on the one hand and establishing a constructive linkage between the campus and the community on the other hand.
- **Motto of NSS:** "Not Me But You".

- Practice national integration and social harmony.

Nature of Activities under NSS:

- Briefly, the NSS volunteers work on issues of social relevance, which keep evolving in response to the needs of the community, through regular and special camping activities. Such issues include (i) literacy and education, (ii) health, family welfare and nutrition, (iii) environment conservation, (iv) social service programmes, (v) programmes for empowerment of women, (vi) programmes connected with economic development activities, (vii) rescue and relief during calamities, etc.

Sources: pib.

Topics: India and its neighbourhood- relations.

1. TIBETAN DEMOCRACY DAY

What to study?

- For Prelims: Significance if the day and about the Government in- exile.
- For Mains: What led to the formation of government in- exile, challenges faced by them and the overall significance.

Context: September 2 marks the anniversary of the establishment of the democratic system of the Tibetan people living in exile in India.

- This year, the Tibetan Government-in-Exile celebrated its 59th Democracy Day.

Why is this day significant?

- In February 1960, after he crossed over into India, the Fourteenth Dalai Lama outlined in Bodh Gaya, a detailed programme of democratic practice for exiled Tibetans.
- He advised them to set up an elected body with three exiled representatives each from the three provinces, and one each from the four religious schools of Tibetan Buddhism.
- After elections were held, 13 elected representatives, called 'Deputies', were designated as the 'Commission of Tibetan People's Deputies' (CTPD). They took oath on September 2, 1960.
- Subsequently from 1975 onward, this date began to be formally observed as Tibetan Democracy Day.

About Parliament-in-Exile:

- The TPiE is the highest legislative body of the Central Tibetan Administration (CTA).
- It is described as one of the three pillars of Tibetan democratic governance — the others being the Judiciary and the Kashag, or Executive.
- The CTA is based in Dharamsala, Himachal Pradesh.
- Elections are held every five years to elect Members of the TPiE, and their Sikyong (Prime Minister).

Government-in-Exile:

- On March 10, 1963, the Dalai Lama promulgated the Constitution of the Tibetan Government-in-Exile (TGiE).
- From 1991 onwards, TPiE became the legislative organ of the CTA, the Tibetan Supreme Justice Commission became the judicial organ, and the Kashag the executive organ.
- The TGiE is not recognised officially by any country, including India. However, many countries, including the US, deal directly with the Sikyong and other Tibetan leaders through various forums.

Sources: Indian Express.

2. ROHINGYA REFUGEES

What to study?

- For Prelims: Who are Rohingyas?
- For Mains: Displacement of Rohingya community, controversy associated and the need for international cooperation to address the issue.

Context: Recently, Rohingya refugees in Bangladesh refused to board buses that would have taken them to Myanmar. This resulted in **Myanmar missing the August 2019 target for repatriation**.

Who are Rohingyas?

- They are an Ethnic group, **mostly Muslims**. They were not granted full citizenship by Myanmar.
- They were **classified as “resident foreigners or associate citizens”**.
- Ethnically they are much closer to Indo-Aryan people of India and Bangladesh than to the Sino-Tibetans of the Country.

What's the issue?

- Few years ago, religious and **ethnic tensions between the Rohingya Muslims and the Rakhine Buddhists** (who make up the majority of the population in Myanmar) escalated into widespread, deadly rioting.
- Hundreds of thousands were forced to flee. Since then, ongoing violent attacks have forced even more people to leave their homes.
- The Myanmar Government says that Rohingya people are not Burmese citizens – but the Rohingya have been living in Myanmar for generations. Today, they are a people with no home or citizenship.
- Rohingya people are being widely abused and exploited. They are one of the most persecuted minorities in the world.

Sources: the hindu

3. GILGIT-BALTISTAN

What to study?

- For Prelims: Location of Gilgit- Baltistan, eighth thousanders.
- For Mains: Controversy over the administration of the region, India's concerns, viable solution.

Context: Home Minister Amit Shah's statement in the Parliament has sufficiently amplified India's broadened vision that **Pakistan Occupied Kashmir including the so-called Azad Kashmir and Gilgit-Baltistan (G-B) belong to India**.

Where is Gilgit Baltistan located?

- **Located in the northern Pakistan. It borders China in the North, Afghanistan in the west, Tajikistan in the north west and Kashmir in the south east.**
- It shares a **geographical boundary with Pakistan-occupied Kashmir**, and India considers it as part of the **undivided Jammu and Kashmir**, while Pakistan sees it as a separate from PoK.
- It has a regional Assembly and an elected Chief Minister.
- **China-Pakistan Economic Corridor (CPEC)** also passes through this region.
- **Gilgit-Baltistan is home to five of the “eight-thousanders”** and to more than **fifty peaks above 7,000 metres (23,000 ft)**.
- **Three of the world’s longest glaciers outside the polar regions** are found in Gilgit-Baltistan.

How Pakistan took over it?

- The British sold it, along with the rest of Jammu and Kashmir, to the Dogra ruler of Jammu, Gulab Singh, after defeating the Sikh army in 1846, but retained controlled over the area through a lease extracted from the Maharaja.
- This lease was last renewed in 1935. In 1947, a British army officer of the rank of Colonel imprisoned Maharaja Hari Singh's governor in the region, and handed over the area for accession to Pakistan.

Recent developments:

- Pakistan, in 2017, proposed to declare the strategic Gilgit-Baltistan region as its **fifth Province**.

Impediments ahead:

- Gilgit- Baltistan is part of J&K and any such move would seriously damage Pakistan's Kashmir case. Two UN resolutions of August 13, 1948 and January 5, 1949 clearly established a link between GB and the Kashmir issue.
- Making the region its fifth province would thus violate the **Karachi Agreement** — perhaps the only instrument that provides doubtful legal authority to Pakistan's administration of GB — as well as the UN resolutions that would damage its position on the Kashmir issue.

- Any such move would also be violative of the 1963 Pak-China Boundary Agreement that calls for the sovereign authority to reopen negotiations with China “after the settlement of the Kashmir dispute between Pakistan and India” and of the 1972 Simla Agreement that mentions that “**neither side shall unilaterally alter the situation**”.

Sources: the hindu.

4. QUAD COUNTRIES

What to study?

- For Prelims: Members of the Quad grouping, countries in the Indian ocean region, Chinese military bases.
- For Mains: The Quad grouping- features, significance, concerns and potential.

Context: Foreign ministers of the **Quad countries – India, US, Australia and Japan** – met recently on the sidelines of the UNGA meeting.

Significance, focus and outcomes of latest meet:

- The Ministers met to discuss cooperation on counter-terrorism, mentoring, assistance in disaster relief, airtime security, cooperation, development, finance and cybersecurity efforts etc.
- The Quad countries were “resolute” in their view of the **centrality of the Association of South East Asian Nations (ASEAN) in South East Asia**.

Significance of the grouping:

- Quad is an opportunity for like-minded countries to share notes and collaborate on projects of mutual interest.
- Members share a vision of an open and free Indo-Pacific.
- It is one of the many avenues for interaction among India, Australia, Japan and the US and should not be seen in an exclusive context.

Sources: the Hindu.

What is Quad grouping?

- The quadrilateral formation includes Japan, India, United States and Australia.
- All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.
- The idea was first mooted by Japanese Prime Minister Shinzo Abe in 2007. However, the idea couldn't move ahead with Australia pulling out of it.

(Q) In its ambition and enthusiasm to actively engage in “Quadrilateral” grouping, India should not neglect its neighbours. Comment.

Topics: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

1. AUTOMATIC EXCHANGE OF INFORMATION (AEOI)

What to study?

- For Prelims: Key features of AEOI and CRS.
- For Mains: need for and the significance of AEOI.

Context: Automatic Exchange of Information (AEOI) Regime between Switzerland and India kicked off from September 1, 2019. Under this mechanism, India will start receiving information on all financial accounts held by Indian residents in Switzerland, for the year 2018.

What does this mean for India, and how will the exchange of information be governed?

- This is not a new measure. In 2016, India and Switzerland had signed an information-sharing deal on bank accounts, which was to come in effect from September 2019.
- The step is likely to shed more light on the wealth Indians have stashed away in Swiss bank accounts, for so long governed by strict local rules of secrecy.
- In 2018, data from Zurich-based Swiss National Bank (SNB) had shown that after declining for three years, money parked by Indians in Swiss Banks rose 50 per cent to CHF (Swiss Franc) 1.02 billion (Rs 7,000 crore) in 2017 over the previous year.

What is AEOI?

- Automatic Exchange of Information (AEOI) is systematic and periodic **transmission of “bulk” taxpayer information by the source country to the residence country**, which is possible under most of the **Double Taxation Avoidance Agreements (DTAAs)** and **Multilateral Convention on Mutual Administrative Assistance in Tax Matters (MAC)**.
- It aims **to reduce global tax evasion**.
- It is to be carried out under **Common Reporting Standard (CRS)** of OECD.
- AEOI is **the exchange of information between countries without having to request it**.

Need for AEOI:

- Tax payers operate cross border whereas tax administration is limited to national borders. This has helped tax evasion by shifting money to other countries by citizens. Both **tax evasion and tax avoidance have escalated**; facilitated by quick transfer of income from one country to another.
- Vast amounts of **money are kept offshore and go untaxed** to the extent that taxpayers fail to comply with tax obligations in their home jurisdictions.
- **Tackling this cross national transfer of money to avoid and evade taxes indicate that national efforts are not enough to fight black money**. Hence there is the need for tax cooperation and tax information exchanges between countries.

Significance and benefits of AEOI:

- Enables the discovery of formerly undetected tax evasion.
- Enable governments to recover tax revenue lost to non-compliant taxpayers, and will further strengthen international efforts to increase transparency, cooperation, and accountability among financial institutions and tax administrations.
- Generate secondary benefits by increasing voluntary disclosures of concealed assets and by encouraging taxpayers to report all relevant information.

Sources: the Hindu.

2. MALÉ DECLARATION

What to study?

- For Prelims: About Speakers' summit and its significance, Overview of Male Declaration.
- For Mains: Significance and implications of the Declaration, Why Kashmir issue must be Treated as internal matter of India?

Context: The fourth South Asian Speakers' Summit was held recently in Maldives capital with the secretary general of the Inter-Parliamentary Union and senior lawmakers from Afghanistan, Bangladesh, Bhutan, India, Pakistan and Sri Lanka.

About the Male Declaration:

- The Declaration "unanimously" felt that **Kashmir was an "internal matter" of India** and overlooked all assertions made by Islamabad on the issue.

Background:

- This is the fourth event in a series of Speakers' Summits for the region on SDGs, **the previous three** having been hosted by the Jatiya Sangsad of Bangladesh (in 2016), the Sansad of India (in 2017) and the Parliament of Sri Lanka (2018).

Outcome of the summit:

- At the end of the summit, **Male Declaration** was adopted by the leaders.

India's position:

- India has defended its decision to scrap provisions of **Article 370** that have special status to Jammu and Kashmir, saying that it was an internal matter. India has also snubbed Pakistan for interfering in the internal matters of the country, saying that Pakistan was misleading the world.

Way ahead for India:

- For India, there is now no “outstanding” issue of Kashmir except India’s claim on Pakistan-occupied Kashmir (PoK), which includes Gilgit-Baltistan. The need for a back-channel to find a solution to the Kashmir issue has disappeared.
- India’s decision will also have effect on the Indus Waters Treaty and Pakistan’s strategy of creating obstacles for Indian power projects in Jammu and Kashmir permitted by the treaty.
- UN might issue some statement advocating reduction of tensions and peaceful settlement of differences, etc., but a change in India’s domestic law on J&K’s status within the Indian Union is not an international matter as it does not endanger international peace and security.
- More importantly, Article 370 does not figure in any UN resolution on Kashmir. It was inserted in the Indian Constitution in 1954 unilaterally by India, many years after the UN resolutions on J&K and, so, it can be unilaterally removed.

Options before Pakistan:

- Pakistan has propagandist options, but no substantial ones.
- It can try to foment resistance within the valley to India’s decision and step up terrorism in J&K.
- This will be risky as support to jihadi activities in J&K will allow India to increase pressure on Pakistan in the Financial Action Task Force (FATF), besides the danger of retaliation from India, which Pakistan can ill afford in view of its distressed economic situation.

Sources: the Hindu.

3. INDIAN OCEAN CONFERENCE

What to study?

- For Prelims and Mains: Indian Ocean Conference and its significance.

Context: Fourth Indian Ocean Conference 2019 was recently held in Male, capital of Maldives.

- **Theme:** ‘Securing the Indian Ocean Region: Traditional and Non-Traditional Challenges’.

Why is the Indian Ocean important?

- It enjoys a privileged location at the crossroads of global trade, connecting the major engines of the international economy in the Northern Atlantic and Asia-Pacific. This is particularly important in an era in which global shipping has burgeoned.
- Indian Ocean is also rich in natural resources. 40% of the world’s offshore oil production takes place in the Indian Ocean basin.
- Fishing in the Indian Ocean now accounts for almost 15% of the world’s total.
- Mineral resources are equally important, with nodules containing nickel, cobalt, and iron, and massive sulphide deposits of manganese, copper, iron, zinc, silver, and gold present in sizeable quantities on the sea bed.
- Indian Ocean coastal sediments are also important sources of titanium, zirconium, tin, zinc, and copper.
- Additionally, various rare earth elements are present, even if their extraction is not always commercially feasible.

Sources: the hindu.

About Indian Ocean Conference:

- Initiated by India Foundation along with its partners from Singapore, Sri Lanka and Bangladesh.
- It is an annual effort to bring together Heads of States/Governments, Ministers, Thought Leaders, scholars, diplomats, bureaucrats and practitioners from across the region.

4. REGIONAL COMPREHENSIVE ECONOMIC PARTNERSHIP (RCEP)

What to study?

- For prelims: RCEP- Key facts and Geographical location of member countries.
- For mains: Why is India concerned, gains and losses from this, what India needs to do?

Context: The 7th Regional Comprehensive Economic Partnership (RCEP) ministerial meeting of 10 members of ASEAN countries and their six FTA (free trade agreement) partners is being held in Bangkok, Thailand.

What you need to know about RCEP?

- RCEP is proposed between the **ten member states of the Association of Southeast Asian Nations (ASEAN) (Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, Vietnam) and the six states with which ASEAN has existing FTAs** (Australia, China, India, Japan, South Korea and New Zealand).
- RCEP negotiations were **formally launched in November 2012** at the ASEAN Summit in Cambodia.
- **Aim:** RCEP aims to boost goods trade by eliminating most tariff and non-tariff barriers — a move that is expected to provide the region's consumers greater choice of quality products at affordable rates. It also seeks to liberalise investment norms and do away with services trade restrictions.

Why has it assumed so much significance in recent times?

- When inked, it would become **the world's biggest free trade pact**. This is because the 16 nations account for a total GDP of about \$50 trillion and house close to 3.5 billion people. India (GDP-PPP worth \$9.5 trillion and population of 1.3 billion) and China (GDP-PPP of \$23.2 trillion and population of 1.4 billion) together comprise the RCEP's biggest component in terms of market size.

Why is India concerned?

- **Greater access to Chinese goods may have impact on the Indian manufacturing sector.** India has got massive trade deficit with China. Under these circumstances, India proposed differential market access strategy for China.
- There are demands by other RCEP countries for lowering customs duties on a number of products and greater access to the market than India has been willing to provide.

Why India should not miss RCEP?

- If India is out of the RCEP, it would make its **exports price uncompetitive with other RCEP members' exports** in each RCEP market, and the ensuing export-losses contributing to foreign exchange shortages and the subsequent extent of depreciation of the rupee can only be left to imagination. Some of the sectors that have been identified as potential sources of India's export growth impulses under RCEP to the tune of approximately \$200 billion.
- There are more compelling trade and economic reasons for RCEP to become India-led in future, than otherwise. **India would get greater market access in other countries not only in terms of goods, but in services and investments also.**

However, there are views that in present form the RCEP agreement is not good for India. Why?

- The current account deficit (CAD) touched 8 per cent of GDP, and the agreement in the present state of negotiations would mean forgoing a substantial part of the revenues.
- Greater access to Chinese goods may have impact on the Indian manufacturing sector. India has got massive trade deficit with China. In fiscal year 2017-18, the trade deficit with China was \$63 billion.
- Exports from ASEAN into India have grown far quicker than Indian exports to the bloc, which they attribute to the fact that India is a "services economy."
- There are demands by other RCEP countries for lowering customs duties on a number of products and greater access to the market than India has been willing to provide.
- Apart from China, India is also losing out to financial and technological hub of Singapore, agriculture and dairy majors Australia and New Zealand, plantations of South East Asian countries, and pharmaceutical trade with China and the US.
- With e-commerce as part of the discussion, the Indian resistance at WTO of not letting the discussion on digital trade will weaken.
- The free movement of investments will benefit investors in the US, Singapore, Japan and China, but very few Indians will be taking advantage of this.
- New Delhi is also worried that the RCEP will open backdoor negotiations and may lead to the country losing out on TRIPS agreements. This may result in giving way to global majors in agriculture seed and pharmaceutical manufacturing.

Way ahead:

- Bilateral talks between India and China are crucial for an early conclusion of RCEP negotiations as agreed by other members. Indian policymakers need to be mindful of domestic sectors' concerns before agreeing on terms of deal. Simultaneously, there is a necessity to improve our competitiveness in the economy. India must play its due role to get its due place in the regional economic configurations.

Sources: the Hindu.

5. SHANGHAI COOPERATION ORGANIZATION (SCO)

What to study?

- For prelims and mains: SCO- objectives, members, functions, significance, various organs and issues associated.

Context: The first Conference on Military Medicine for Shanghai Co-operation Organisation (SCO) Member States will be held in New Delhi from 12-13 September 2019.

- The conference will also be **1st military co-operation event hosted by India under SCO Defence Co-operation Plan 2019-2020**, after India became an SCO member country in 2017.
- **Objective of Conference:** To share best practices in field of military medicine, build capacities and overcome common challenges.

About SCO:

- **What is it?** The Shanghai Cooperation Organisation, also known as the Shanghai Pact, is a Eurasian political, economic, and military organisation which was founded in 2001 in Shanghai.
- **Founding members:** China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan. The cooperation was renamed to Shanghai Cooperation Organisation after Uzbekistan joined the organisation in 2001.
- **The SCO's main goals are:** strengthening mutual trust and neighbourliness among the member states; promoting their effective cooperation in politics, trade, the economy, research, technology and culture, as well as in education, energy, transport, tourism, environmental protection, and other areas; making joint efforts to maintain and ensure peace, security and stability in the region; and moving towards the establishment of a democratic, fair and rational new international political and economic order.
- **Presently, the SCO comprises eight member states**, namely the Republic of India, the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan;
- **The SCO counts four observer states**, namely the Islamic Republic of Afghanistan, the Republic of Belarus, the Islamic Republic of Iran and the Republic of Mongolia.
- **The SCO has six dialogue partners**, namely the Republic of Azerbaijan, the Republic of Armenia, the Kingdom of Cambodia, the Federal Democratic Republic of Nepal, the Republic of Turkey, and the Democratic Socialist Republic of Sri Lanka.

6. EURASIAN ECONOMIC FORUM

What to study?

- For Prelims and mains: EAEU- composition, objectives and significance.

Context: India has skipped a meeting of the **Eurasian Economic Union (EAEU)**, which was organised by the **Shanghai Cooperation Organisation (SCO)** at Xi'an in China.

Why India did not attend?

- The entire event was organized to discuss and deliberate upon China's **Belt and Road Initiative**.

Outcome:

- The forum promoted the revival of the **ancient Great Silk Road in Eurasia** in a new, modern format.

Belt and Road Initiative:

- It is a mammoth **infrastructure project unveiled by China in 2017**, which plans to **connect the three continents of Asia, Europe, and Africa**.
- **The 'Belt' part** refers to the Silk Road Economic Belt, consisting of three overland routes.

- A link between China, Central Asia, Russia and Europe.
- A link through Central Asia and West Asia linking China with the Persian Gulf and the Mediterranean Sea.
- A connection from China to Southeast Asia, South Asia, and the Indian Ocean.
- **The ‘Road’ part** refers to the 21st century Maritime Silk Road, creating maritime trade channels from China through the South China Sea, the Indian Ocean, and the South Pacific.

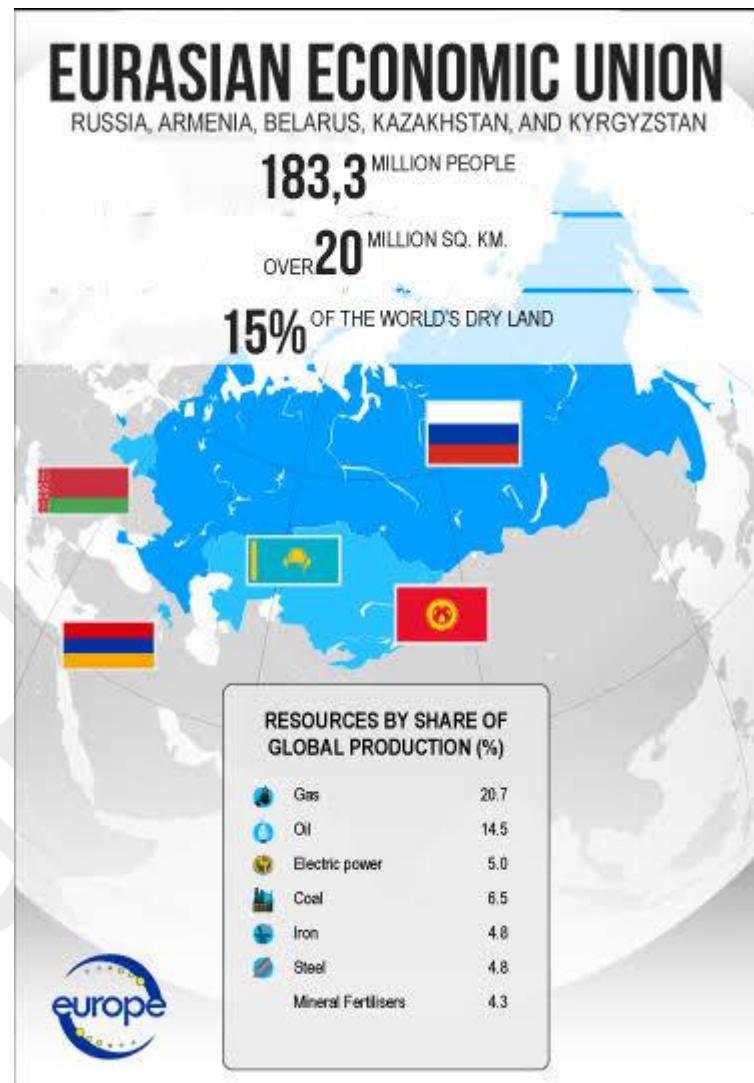
India's opposition:

- The **China-Pakistan Economic Corridor**, an important part of the **BRI**, passes through **Pakistan Occupied Kashmir (PoK)**.

About Eurasian economic union:

- It is an **international organization for regional economic integration**.
- It has **international legal personality** and is established by the **Treaty on the Eurasian Economic Union**.
- **Composition:** Includes Russia, Belarus, Armenia, Kyrgyzstan and Kazakhstan.
- It has **free movement of goods, services and labour**.
- It has its **own bureaucratic structure**.
- **Various bodies under it:**
- **Supreme Council** is the Union's supreme authority. The Heads of the Member-States form the Supreme Council.
- **Intergovernmental Council** is a Union's body consisting of the Heads of the Member-States Governments.
- **Eurasian Economic Commission** is a permanent supranational regulatory body of the Union. The core tasks of the Commission are fostering the conditions to support the operation and development of the Union, and drafting proposals in the field of economic integration within the Union.
- **Court of the Eurasian Economic Union** is the court of justice of the Eurasian Economic Union, which ensures the uniform application of the EAEU Treaty and other Union treaties by the Union Member-States and bodies.

Sources: the Hindu.



7. PACESETTER FUND PROGRAMME

What to study?

- For Prelims: What is it? Overview.
- For Mains: Significance and the need for this fund, why promote off-grid clean energy?

Context: Ministry of New and Renewable Energy awards grants to four projects in second round of **PACEsetter Fund programme**.

PACEsetter fund:

- **Constituted by India and the USA** in 2015.
- **It is a INR 50 crore (USD 7.9 million) fund jointly capitalized by the Governments of the Republic of India and the United States of America.**

- It is a joint fund to provide early-stage grant funding to accelerate the commercialization of innovative off-grid clean energy products, systems, and business models.
- The Fund will award grants for direct support of innovative technology, business models, and programs including but not limited to: rural energy services companies (full scale integrated operators); rural distribution companies/franchisees; operations/maintenance companies; technology implementers/system integrators; and enterprises.

Eligibility:

- To be eligible, projects must be focused on improving the viability of off grid renewable energy businesses and organizations, under served individuals and communities in India without access to grid connected power or with limited or intermittent access less than 8 hours per day using small scale (under 1 megawatt) clean energy systems.

Background:

- Energy access is crucial for improving the quality of life for India's citizens and their economic conditions, and 24/7 energy availability remains a priority for the Indian government.
- Off-grid, clean energy technologies, combined with innovative financing models, market-based solutions, and policy alignment, have tremendous potential to become a transformative agent of economic opportunity and rural development.

Sources: pib.

Topics: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

1. ASEAN-INDIA TRADE IN GOODS AGREEMENT (AITIGA)

What to study?

- For Prelims: Key features of AITIGA.
- For mains: Significance of the agreement and concerns over India's trade deficit with ASEAN nations.

Context: India and the 10-member ASEAN have agreed to initiate a review of the **bilateral free trade agreement (FTA)** in goods to make it more user-friendly, simple and trade facilitative.

- The countries have also agreed to initiate the review of the **ASEAN-India trade in goods agreement** to make it more user-friendly, simple, and trade facilitative for businesses.

About AITIGA:

- The ASEAN-India Free Trade Area (AIFTA) is a **free trade area among the ten member states of the Association of Southeast Asian Nations (ASEAN) and India**.
- It **came into force from January 2010**.
- Under the pact, **two trading partners set timelines for eliminating duties on the maximum number of goods traded between the two regions**.
- Based on preliminary ASEAN data, two-way goods trade with India grew by 9.8 per cent from \$73.6 billion in 2017 to \$80.8 billion in 2018.

Need for review:

- India is not happy about the fact that its trade deficit with ASEAN has widened significantly since the pact was implemented.
- A NITI Aayog study reveals that India's trade deficit with ASEAN doubled to \$10 billion in 2017 from \$5 billion in 2011.
- One of the reasons for the growing deficit is the low utilisation of the FTA route by Indian exporters to ASEAN countries because of difficulties faced in negotiating the rules.
- A review of the India-ASEAN FTA could help improve utilisation in India by making the pact simpler and more user-friendly.

Sources: the Hindu.

2. IMPACT OF ATTACK ON SAUDI ARABIA'S OIL FACILITY

What to study?

- For Prelims: Top importers and exporters of oil.
- For Mains: Impact of the Recent attack, what needs to be done?

Context: Houthi, a rebel Shia group of Yemen that is backed by Iran, bombed the Abqaiq plant as well as the Khurais oil field in Saudi Arabia using drones.

Impact of the attack:

- Saudi Aramco, the state-owned oil company, had to suspend the production of almost 6 million barrels per day (about 6 per cent of global oil supply).
- It had to restrict the use of 2 mbd of spare capacity.
- This is the largest-ever disruption in crude oil production in Saudi Arabia.

Concerns for India:

- Saudi supplies 10 per cent of global world supply and is the world's largest crude oil exporter.
- India imports 80% of the oil it consumes, which means there are multiple ways in which the country will be impacted by this disruption. With this attack, Oil prices may go up
- India is already trying to make up for the loss of supply from Iran after US-imposed sanctions. After Iraq, Saudi Arabia is India's second-largest supplier of crude oil.
- Besides, the global supply has been volatile because of disruptions in some of the other big suppliers such as Venezuela, Libya and Nigeria.
- Supply constraints and rising oil prices would mean that the rupee will weaken further against the dollar — that's because, as the dollar prices of crude oil rise, India would need to buy more dollars for the same amount of oil, thus depreciating the value of the rupee vis-à-vis the dollar.
- Rising oil prices will worsen the Indian government's fiscal balance.
- Higher crude oil prices would also lead to higher domestic oil prices, which, in turn, will further depress the demand for all things, especially those that use oil as the primary input — say, cars.
- This dip in consumption demand, which is already under strain as the recent growth slowdown has shown, would likely mean lower economic activity and consequently lower revenues for the government.

Sources: Indian Express.

3. SCOPE FOR THIRD PARTY MEDIATION IN KASHMIR

What to study?

- For Prelims: Various bilateral agreements between India and Pakistan.
- For mains: Mediation in Kashmir issue- do we need it? India's opposition and what is the way out?

Context: India has reiterated that there is no scope for third party intervention in the Kashmir issue.

What is mediation?

- Both in international law and diplomacy, mediation often denotes a 'friendly interference' of a neutral state in the controversies of other nations, with the objective of using its influence to 'adjust their difficulties'.

Previous instances of mediation:

- **Indus Water treaty:** Both nations were able to reach agreements through third party mediators in case of the Indus Waters Treaty and the negotiations on the Rann of Kutch dispute.
- **Rann of Kutch Accord** (mediated by British Prime Minister Harold Wilson) persuaded the combatants to end hostilities and establish a tribunal to resolve the dispute.
- **During the 1965 Indo-Pakistan war**, the then USSR led mediation efforts paved the way for India and Pakistan to withdraw forces from each other's territories while agreeing to discuss all future matters. This was followed by signing of the **Tashkent Declaration** in Uzbekistan.

Why India's reluctance to third-party intervention on the issue is justified?

- **Mediation has no chance of working better than bilateral agreements**, like the Simla Agreement of 1972 that both sides agreed to respect.

- From India's stand point **Kashmir remains an internal problem**.
- Third parties could use their might to **impose a solution on Kashmir that might go contrary to India's stated position**.

Conclusion:

- Principles of state sovereignty and non-interference dictate that mediation needs not be imposing. It can be beneficial, non-coercive and compatible with the structures of international system. We already have a historical precedent to it.

Sources: the Hindu.

Topics: Important International institutions, agencies and fora, their structure, mandate.

1. THE GLOBAL FUND TO FIGHT AIDS, TUBERCULOSIS AND MALARIA

What to study?

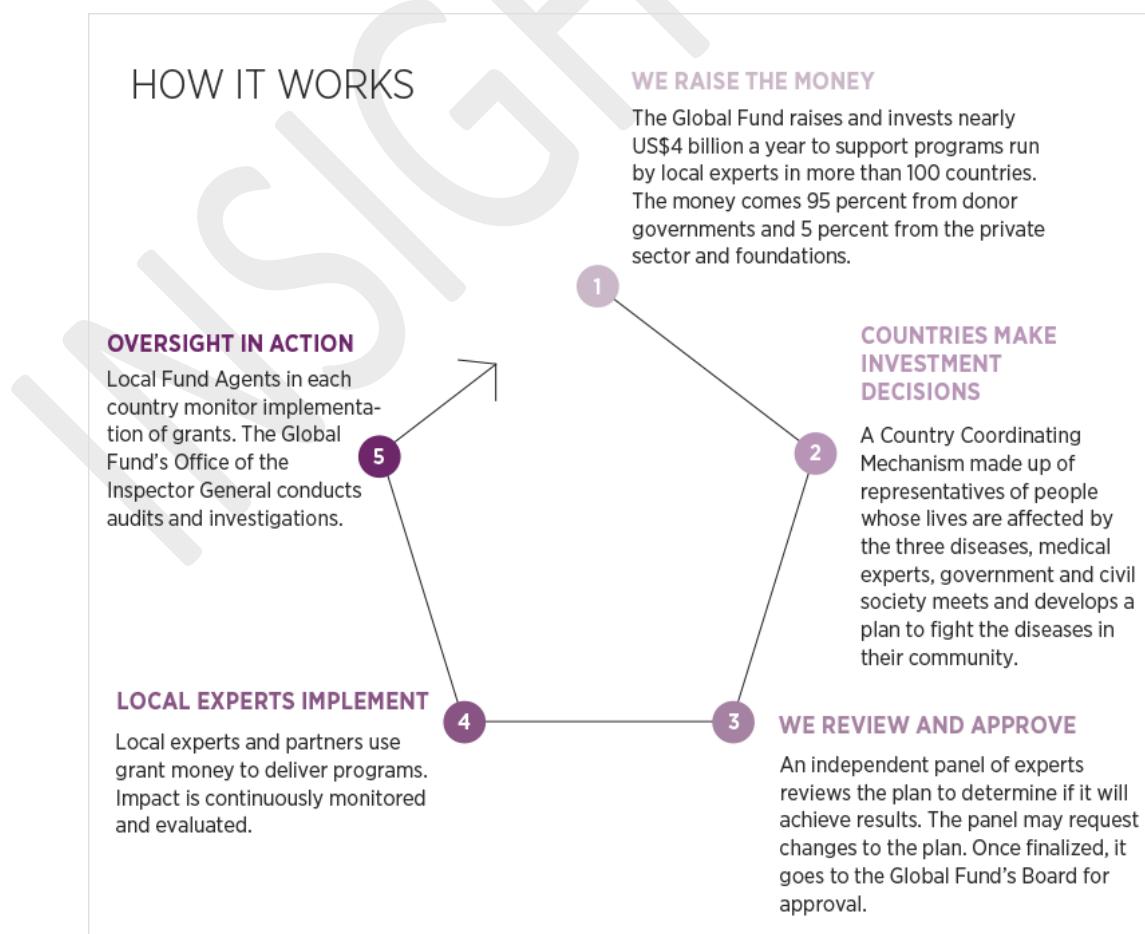
- For Prelims and Mains: The Fund, its objectives, need for funding, significance and challenges.

Context: India has announced a contribution of 22 million US Dollars to the **Global Fund for AIDS, TB and Malaria (GFTAM)** for the 6th replenishment cycle, an increase of 10% over the amount contributed by us in the 5th cycle.

What is it?

- The Global Fund to Fight AIDS, Tuberculosis and Malaria (or simply the Global Fund) is an international financing organization.
- It aims to “attract, leverage and invest additional resources to end the epidemics of HIV/AIDS, tuberculosis and malaria to support attainment of the Sustainable Development Goals established by the United Nations.”
- Founded in 2002, the Global Fund is a **partnership between governments, civil society, the private sector and people affected by the diseases**.
- The organization maintains its **secretariat in Geneva, Switzerland**.

Historical background:



- The Global Fund was formed as an independent, non-profit foundation under Swiss law and hosted by the World Health Organization in January 2002. In January 2009, the organization became an administratively autonomous organization, terminating its administrative services agreement with the World Health Organization.

Sources: the Hindu.

2. INTERPOL GENERAL ASSEMBLY

What to study?

- For Prelims and mains: Composition, objectives and functions of IGA.

Context: India has proposed to Interpol that the General Assembly of the organization be held in New Delhi in 2022 as part of the nation's 75th Independence Day celebrations.

What is Interpol?

- The International Criminal Police Organisation, or Interpol, is a 194-member intergovernmental organisation.
- headquartered in Lyon, France.
- formed in 1923 as the International Criminal Police Commission, and started calling itself Interpol in 1956.
- India joined the organisation in 1949, and is one of its oldest members.
- Interpol's declared global policing goals include countering terrorism, promoting border integrity worldwide, protection of vulnerable communities, providing a secure cyberspace for people and businesses, curbing illicit markets, supporting environment security, and promoting global integrity.

What is the Interpol General Assembly?

- It is Interpol's supreme governing body, and comprises representatives from all its member countries.
- It meets annually for a session lasting approximately four days, to vote on activities and policy.
- Each country is represented by one or more delegates at the Assembly, who are typically chiefs of law enforcement agencies.
- The Assembly also elects the members of the Interpol Executive Committee, the governing body which "provides guidance and direction in between sessions of the Assembly".

Assembly Resolutions:

- The General Assembly's decisions take the form of Resolutions.
- Each member country has one vote. Decisions are made either by a simple or a two-thirds majority, depending on the subject matter.

Sources: the Hindu.

3. ASSOCIATION OF WORLD ELECTION BODIES

Context: Election Commission is hosting the 4th General Assembly of Association of World Election Bodies (A-WEB) at Bengaluru.

- India will take over as A-WEB's Chair for the 2019-21 term.

About The Association of World Election Bodies (A-WEB):

- It is the largest association of Election Management Bodies (EMBs) worldwide.
- Established on October 14, 2013 in Song-do, South Korea.
- Permanent secretariat is located at Seoul.
- Aims to foster efficiency and effectiveness in conducting free, fair, transparent and participative elections worldwide.
- Composition:** 115 EMBS as Members & 20 Regional Associations/Organisations as Associate Members. 24 EMBS from Asia, 37 from Africa, 31 from America, 17 from Europe & 6 from Oceania presently are members of A WEB.

Sources: pib.

4. EASTERN ECONOMIC FORUM

What to study?

- For Prelims: Geographical position and features of the Far East, About the forum and its genesis.
- For Mains: need for and significance of India-Russia cooperation.

Context: India extends \$1 billion line of credit for development of **Russia's Far East**.

- This was announced by PM Modi at the ongoing **5th Eastern Economic Forum**.

About the Eastern Economic Forum:

- **Established by Decree of the President** of the Russian Federation in 2015.
- It takes place each year in Vladivostok.
- Serves as a platform for the discussion of key issues in the world economy, regional integration, and the development of new industrial and technological sectors, as well as of the global challenges facing Russia and other nations.
- **Participants:** The Forum business programme includes a number of business dialogues with leading partner countries in the Asia-Pacific region, and with ASEAN, a key integration organization of dynamically developing nations in Southeast Asia.

ABOUT THE FAR EAST:

- The Far East is the **easternmost part of Russia**.
- It borders two oceans, the Pacific and the Arctic, and five countries (China, Japan, Mongolia, the United States and the DPRK).
- The Far Eastern Federal District **covers more than a third of the country's territory**.
- **RESOURCES:** The Far East is rich in natural resources like diamonds, stannary, borax materials, 50 gold, tungsten, and fish and seafood. About 1/3 of all coal reserves and hydro-engineering resources of the country are here. Forests of the region comprise about 30% of the total forest area of Russia.

Sources: the Hindu.

5. UN PEACEKEEPING

What to study?

- For Prelims and Mains: About UN Peacekeeping- need, significance, challenges and operations in place.

Context: India calls for reforms in peacekeeping at UNSC debate.

Need for reforms:

- Peacekeeping currently is in a “**no-man's land**” between trying to keep the peace in fragile environments and trying to enforce the maintenance of peace, where there is none to keep.
- There is **not effective improvement of the cooperation** between Troop Contributing Countries (TCCs), the Security Council and the Secretariat.

Need of the hour:

- Reform peacekeeping based on incentivisation, innovation and institutionalisation.
- Incentivise women peacekeepers. As of July 31, women peacekeepers constituted 6 per cent. There are 5,243 female peacekeepers, out of a total of 86,687 peacekeepers.
- Innovative options such as co-deployment of peacekeepers from different countries engenders a genuine spirit of partnership for peace and needs to be promoted.
- There is need for expansion of online initiatives to develop capacities of future commanders and managers so that they lead by example and raise awareness of UN standards of conduct among their personnel is another innovation that can be further promoted.

What is peacekeeping? Its significance?

- United Nations Peacekeeping was **created in 1948**. Its **first mission involved the establishment of the UN Truce Supervision Organization (UNTSO)**, which served to observe and maintain ceasefire during the **1948 Arab-Israeli War**.

- United Nations Peacekeeping helps countries torn by conflict create conditions for lasting peace.
- Peacekeeping has proven to be one of the most effective tools available to the UN to assist host countries navigate the difficult path from conflict to peace.
- Peacekeeping has unique strengths, including legitimacy, burden sharing, and an ability to deploy and sustain troops and police from around the globe, integrating them with civilian peacekeepers to advance multidimensional mandates.

UN Peacekeeping is guided by three basic principles:

1. Consent of the parties.
2. Impartiality
3. Non-use of force except in self-defence and defence of the mandate.

Global partnership:

- UN peacekeeping is a unique global partnership. It brings together the General Assembly, the Security Council, the Secretariat, troop and police contributors and the host governments in a combined effort to maintain international peace and security. Its strength lies in the legitimacy of the UN Charter and in the wide range of contributing countries that participate and provide precious resources.

Sources: the Hindu.

6. WORLD ENERGY CONGRESS

What to study?

- For Prelims and mains: About WEC- objectives, composition and significance.

Context: Abu Dhabi is hosting the 24th World Energy Congress.

- **Theme:** 'Energy for Prosperity'.

About World Energy Council:

- Formed in 1923, the Council is the UN-accredited global energy body, representing the entire energy spectrum,
- Composed of more than 3,000 member organisations located in over 90 countries and drawn from governments, private and state corporations, academia, NGOs and energy-related stakeholders.
- **Roles:** Informs global, regional and national energy strategies by hosting high-level events, publishing authoritative studies, and working through its extensive member network to facilitate the world's energy policy dialogue.

Sources: the Hindu.

About the World Energy Congress:

- It is the World Energy Council's global flagship event.
- It offers a unique platform for global energy leaders to explore new energy futures, critical innovation areas, and new strategies.
- Held every three years and positioned as the flagship event of the World Energy Council, the Congress is the longest-running and most influential energy event in the world.

7. INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

What to study?

- For Prelims and Mains: IAEA and safeguards- objectives, significance and their implementation.

Context: The 63rd General Conference of the International Atomic Energy Agency (IAEA) is presently going on at Vienna.

About IAEA:

- Set up as the world's "Atoms for Peace" organization in 1957 and it is an autonomous organisation.
- Reports to both the United Nations General Assembly and Security Council.
- Headquarters in Vienna, Austria.

Functions:

- Works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.

- Seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.

Board of Governors:

- 22 member states (must represent a stipulated geographic diversity) — elected by the General Conference (11 members every year) – 2 year term.
- At least 10 member states — nominated by the outgoing Board.
- Board members each receive one vote.
- Recommendations to the General Conference on IAEA activities and budget.
- Responsible for publishing IAEA standards.
- Responsible for making most of the policy of the IAEA.
- Appoints the Director General subject to General Conference approval.

General Conference:

- 171 member states — one vote per member.
- Forum for debate on current issues and policies.
- Meets once a year.
- Approve the actions and budgets passed on from the Board of Governors.
- Approves the nominee for Director General.

Programs:

- Program of Action for Cancer Therapy (PACT).
- Human Health Program.
- Water Availability Enhancement Project.
- International Project on Innovative Nuclear Reactors and Fuel Cycles, 2000.

Sources: pib.

8. NUCLEAR SUPPLIERS GROUP

What to study?

- For Prelims: NSG- key facts.
- For Mains: Why India should be given NSG membership, challenges involved and what needs to be done.

Context: At the Bloomberg Global Business Forum in New York, Prime Minister Narendra Modi made a pitch for India's membership of the Nuclear Suppliers Group (NSG).

What is NSG?

- **Brought in 1974**— in response to the Indian nuclear test (smiling Buddha).
- It is a **Multilateral export control regime**.
- It is a **Group of nuclear supplier countries that seek to prevent nuclear proliferation** by controlling the export of materials, equipment and technology that can be used to manufacture nuclear weapons.
- The NSG first met in November 1975 in London, and is thus popularly referred to as the "**London Club**".
- It is **Not a formal organization, and its guidelines are not binding**. Decisions, including on membership, are made by consensus.
- **Membership:** 48 supplier states.

Criteria for membership:

- Ability to supply items (including items in transit) covered by the annexes to Parts 1 and 2 of the NSG Guidelines;
- Adherence to the Guidelines and action in accordance with them;
- Enforcement of a legally based domestic export control system which gives effect to the commitment to act in accordance with the Guidelines;
- Full compliance with the obligations of one or more of nuclear non-proliferation agreement.
- Support of international efforts towards non-proliferation of weapons of mass destruction and of their delivery vehicle.

Why the membership is important for India?

- Membership will increase India's access to state-of-the-art technology from the other members of the Group.
- Access to technology and being allowed to produce nuclear equipment will give a boost to the **Make in India program**. That will, in turn, boost the economic growth of our country.
- As per India's INDC under the Paris Climate agreement, we have committed to reducing dependence on fossil fuels and ensuring that 40% of its energy is sourced from renewable and clean sources. In order to achieve this target, we need to scale up nuclear power production. This can only happen if India gains access to the NSG.
- India will get an opportunity to voice its concern if in case of change in the provision of the NSG guidelines.

Other Benefits associated with NSG membership- Once admitted, an NSG member state gets:

- Timely information on nuclear matters.
- Contributes by way of information.
- Has confirmed credentials.
- Can act as an instrument of harmonization and coordination.
- Is part of a very transparent process.

Sources: the Hindu.

9. UNGA 2019

What to study?

- For Prelims: Roles, functions, composition and objectives of UNGA.
- For Mains: Significance and the need for reforms.

Context: The **74th session of the United Nations General Assembly (UNGA)** is currently on at the UN headquarters in New York.

What is UNGA?

- Popularly known as **the parliament of the world**, where all the 193 UN member states are represented, the UNGA is **the deliberative, policymaking and representative organ of the UN**.

Roles and functions:

- Takes a decision on important matters such as peace and security, discusses various global issues and budgetary matters.
- Decides on matters such as the admission of new members.
- **Decisions are taken through a vote.** Admission of new members and budgetary matters require a two-thirds majority, while the decision on other issues are taken by a simple majority.
- Each sovereign state gets one vote and the votes are not binding on the membership, except in budgetary matters.
- The Assembly has **no binding votes or veto powers like the UN Security Council**.
- The UNGA can express world opinion, promote international cooperation in various fields and make recommendations to the UNSC and elect the Security Council's non-permanent members.

Which countries are not a part of UNGA?

- Among the world's 196 countries, 193 are UN member states and three nations- Palestine, the Vatican City and Taiwan are not a part of the international organization as their country status is not recognized globally due to political and religious reasons.

According to the Charter of the United Nations, the General Assembly may:

- Consider and approve the United Nations budget and establish the financial assessments of Member States;
- Elect the non-permanent members of the Security Council and the members of other United Nations councils and organs and, on the recommendation of the Security Council, appoint the Secretary-General;
- Consider and make recommendations on the general principles of cooperation for maintaining international peace and security, including disarmament;

- Discuss any question relating to international peace and security and, except where a dispute or situation is currently being discussed by the Security Council, make recommendations on it;
- Discuss, with the same exception, and make recommendations on any questions within the scope of the Charter or affecting the powers and functions of any organ of the United Nations;
- Initiate studies and make recommendations to promote international political cooperation, the development and codification of international law, the realization of human rights and fundamental freedoms, and international collaboration in the economic, social, humanitarian, cultural, educational and health fields;
- Make recommendations for the peaceful settlement of any situation that might impair friendly relations among countries;
- Consider reports from the Security Council and other United Nations organs.

Sources: the Hindu.

10. WORLD TOURISM DAY 2019

What to study?

- For Prelims: WTD- theme, objectives and significance, About UNWTO.
- For Mains: Tourism industry- Significance, scope, challenges in development and ways to address them.

Context: This day is commemorated each year on **27 September**, with **celebrations led by UNWTO**.

- The day of September 27 was chosen for World Tourism Day because **the Constitution of the World Tourism Organization was accepted on this day in 1970**.
- **Objectives:** to raise awareness about the role of tourism around the world and to promote social, cultural, political and economic values.
- **2019 theme:** “Tourism and jobs: a better future for all”.
- **Host:** India.

About UNWTO:

- The World Tourism Organization (UNWTO) is the United Nations agency **responsible for the promotion of responsible, sustainable and universally accessible tourism**.

Members:

- UNWTO's membership includes 158 countries, 6 Associate Members and over 500 Affiliate Members representing the private sector, educational institutions, tourism associations and local tourism authorities.

Functions:

- Promotes tourism as a driver of economic growth, inclusive development and environmental sustainability and offers leadership and support to the sector in advancing knowledge and tourism policies worldwide.
- Encourages the implementation of the Global Code of Ethics for Tourism, to maximize tourism's socio-economic contribution while minimizing its possible negative impacts, and is committed to promoting tourism as an instrument in achieving the Sustainable Development Goals (SDGs), geared towards reducing poverty and fostering sustainable development worldwide.
- Generates market knowledge, promotes competitive and sustainable tourism policies and instruments, fosters tourism education and training, and works to make tourism an effective tool for development through technical assistance projects in over 100 countries around the world.

Sources: pib.

GENERAL STUDIES - III

Topics: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

1. ADVANCE PRICING AGREEMENTS (APAS)

What to study?

- For Prelims and Mains: APAs- meaning, features and significance.

Context: The Central Board of Direct Taxes (CBDT) has entered into 26 Advance Pricing Agreements (APAs) in the first 5 months of the financial year (April to August, 2019).

- Out of these 26 APAs, 1 is a BAPA entered into with the United Kingdom and the remaining 25 are Unilateral Advance Pricing Agreements (UAPAs).

What are APAs?

- An APA is an agreement between a taxpayer and the tax authority determining the Transfer Pricing methodology for pricing the tax payer's international transactions for future years.
- An APA provides certainty with respect to the tax outcome of the tax payer's international transactions.

An APA can be one of the three types – unilateral, bilateral and multilateral:

- Unilateral APA** is an APA that involves only the taxpayer and the tax authority of the country where the taxpayer is located.
- Bilateral APA (BAPA)** is an APA that involves the tax payer, associated enterprise (AE) of the taxpayer in the foreign country, tax authority of the country where the taxpayer is located and the foreign tax authority.
- Multilateral APA (MAPA)** is an APA that involves the taxpayer, two or more AEs of the tax payer in different foreign countries, tax authority of the country where the taxpayer is located and the tax authorities of AEs.

Significance:

- The progress of the APA scheme strengthens the government's resolve of fostering a non-adversarial tax regime. The Indian APA programme has been appreciated nationally and internationally for being able to address complex transfer pricing issues in a fair and transparent manner.

Sources: pib.

2. EXTERNAL BENCHMARK RATES

What to study?

- For Prelims: What are EBR?
- For Mains: Significance and the rationale behind RBI's move.

Context: The RBI has made it compulsory for banks to link their new floating rate home, auto and MSME loans to an external benchmark from October 1 so that the borrowers can enjoy lower rate of interest.

- Banks can choose from one of the four external benchmarks** — repo rate, three-month treasury bill yield, six-month treasury bill yield or any other benchmark interest rate published by Financial Benchmarks India Private Ltd.

Current scenario:

- At present, interest rates on loans are linked to a bank's marginal cost of fund-based interest rate, known as the Marginal Cost of Lending Rate (MCLR).
- Existing loans and credit limits linked to the MCLR, base rate or Benchmark Prime Lending Rate, would continue till repayment or renewal.

What is external benchmarking of loans?

- When you borrow money from a bank, be it for purchasing a house, car or for business purposes, interest is levied based on certain methodologies approved by the Reserve Bank of India (RBI). At present, banks use Marginal Cost-based Lending Rate (MCLR) to arrive at their lending rate.

- Prior to this, it was the Base Rate method and the Benchmark Prime Lending Rate (BPLR). These were all internal benchmarks. Banks have been allowed to use RBI's policy rate among other market-driven options to calculate lending rates.

Why the need for a new method?

- For faster transmission. Since February, RBI cut its policy rate by 110 basis points (100 bps=1 percentage point), including the higher-than-expected reduction of 35 bps in its August policy review. However, banks have not been so generous.
- Until August, they had only passed on 29 bps in rate cuts to borrowers, which the RBI thought was unfair. Hence, the regulator has now made it compulsory for banks to link their new floating rate home, auto and MSME loans to an external benchmark from October 1 so that the borrowers can enjoy a lower interest rate.

Sources: the Hindu.

3. BHARAT BILL PAYMENT SYSTEM (BBPS)

What to study?

- For Prelims and mains: BBPS- features, need for and significance.

Context: RBI has expanded the scope and coverage of **Bharat Bill Payment System (BBPS)** to include all categories of billers who raise recurring bills and payments (except prepaid recharges) as eligible participants, on a voluntary basis.

Significance:

- At present, the facility of payment of recurring bills through BBPS is available only in five segments i.e. direct to home (DTH), electricity, gas, water and telecom.
- Expansion of biller categories would increase the user base of Bharat Bill Pay along with providing an efficient, cost-effective alternative to existing systems and enhance consumer confidence and experience.

About BBPS:

- The Bharat Bill Payment System (BBPS) is an RBI conceptualised system driven by **National Payments Corporation of India (NPCI)**.
- It is a one-stop payment platform for all bills, providing an interoperable and accessible "Anytime Anywhere" bill payment service to customers across the country with certainty, reliability and safety of transactions.
- Payments through BBPS may be made using cash, transfer cheques and electronic modes. Bill aggregators and banks, who will function as operating units, will carry out these transactions for the customers.

NPCI:

- National Payments Corporation of India (NPCI)** is an umbrella organization for all retail payments system in India. It was set up with the guidance and support of the Reserve Bank of India (RBI) and Indian Banks' Association (IBA). NPCI has ten promoter banks.

Sources: the hindu.

Topics: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

1. INTER-MINISTERIAL PANEL ON FINTECH

What to study?

- For Prelims and mains: Key recommendations, significance and challenges present.

Context: An inter-ministerial panel on fintech has submitted its report to Finance Minister.

Key recommendations:

- Put in place a comprehensive legal framework to protect consumers of digital services.
- Reserve Bank of India should examine issuance of 'virtual banking licences'.
- Dematerialisation of fixed deposits, sovereign gold bonds and post office certificates to promote easy transactions and collateral.
- RBI should mandate banks to share crucial customer data after consent.

- **Regulation technology (or RegTech)** should be adopted by all financial sector regulators to develop standards and facilitate adoption by financial service providers.
- **Fintech** should be used to improve access of financial products for MSMEs, farmers and poorer sections of the society.
- Insurance companies and lending agencies should be encouraged to **use drone and remote sensing technology** for crop area, damage and location assessments to support risk reduction in insurance/lending business.
- **Digitise land records** across the country on a war footing.
- Set up of an **Inter-Ministerial Steering Committee on fintech** Applications in the Department of Economic Affairs (DEA) to monitor progress, including exploring and suggesting the potential applications in government financial processes and applications.

Sources: the Hindu.

2. PACKAGE TO BOOST EXPORTS AND REVIVE HOUSING SECTOR

What to study?

- For Prelims: Key highlights of the package.
- For Mains: Why the economy is slowing down, need for reforms and ways to address the challenge?

Context: Centre has announced a third set of government decisions to revive the economy. The new package aims to **boost exports and revive a housing sector**.

Background:

- The decisions follow two previous mega announcements to encourage private sector investment and to bring further stability into the banking system through several public sector bank mergers.

Key announcements:

For housing sector:

- **Special window** to provide last-mile funding for stalled housing projects.
- **Who can avail special window?** Non-NPA (Non Performing Assets) and non-NCLT (National Company Law Tribunal) projects and worth positive in affordable and middle income category.
- **Funding:** The government may contribute to the Rs 10,000 crore fund for the special window. The rest of the funds will be from the Life Insurance Corporation (LIC) and other institutions and private capital from banks, sovereign funds, etc.
- **External commercial borrowing (ECB) guidelines will be relaxed** to facilitate financing of home buyers who are eligible under the PMAY, in consultation with RBI.

Measures for exports sector:

- It came in six different silos and covered steps that would address **comprehensively tax and duties refunds for exporters; improve credit flow to the export sector and launch of a special free trade agreement (FTA) utilisation mission**.
- **India will also now host annual mega shopping festivals in 4 places.**
- A new attractive scheme for **remission of duties or taxes on export product (RoDTEP)** to replace the existing Merchandise Exports from India Scheme (MEIS) from January 1 next year.

Definition of affordable housing:

- **According to the Ministry of Housing and Urban Affairs**, the definition of affordable housing is categorised into three parts, as per the minimum area of habitation.
- **For the Economically Weaker Section, affordable housing** is defined with an area of habitation between 300-500 sq ft. **The Lower Income Groups** have a minimum area of 500-600 sq ft, while **Middle Income Groups** are allotted between 600-1,200 sq ft.

Way ahead:

- Without enacting any major supply-side reforms like land and labour reforms that can raise potential growth, it is hard to see how greater spending can raise growth for very long.

- The government may believe that the present slowdown, marked by five consecutive quarters of dropping growth, is merely a cyclical one.
- But given the size of its victory in two consecutive elections, the government should aim higher by trying to push through long-pending structural reforms that can raise India's growth trajectory to the next level.

Sources: the Hindu.

3. NIRVIK SCHEME

What to study?

- For Prelims and mains: Key features and significance of the scheme.

Context: Export Credit Guarantee Corporation of India (ECGC) has introduced 'NIRVIK' scheme to ease the lending process and enhance loan availability for exporters.

Key features of the scheme:

- Insurance cover guaranteed will cover up to 90 percent of the principal and interest.
- The increased cover will ensure that foreign and rupee export credit interest rates are below 4 percent and 8 percent respectively for the exporters.
- The insurance cover will include both pre and post-shipment credit.
- The gems, jewellery and diamond (GJD) sector borrowers with limit of over Rs 80 crore will have a higher premium rate in comparison to the non-GJD sector borrowers of this category due to the higher loss ratio.
- For accounts with limits below Rs 80 crore, the premium rates will be moderated to 0.60 per annum and for those exceeding Rs 80 crore, the rates will be 0.72 per annum for the same enhanced cover.
- It mandates inspection of bank documents and records by ECGC officials for losses exceeding Rs.10 crore as against the present Rs 1crore.
- The banks shall pay a premium to ECGC monthly on the principal and interest as the cover is offered for both outstandings.

Benefits of the scheme:

- It will enhance accessibility and affordability of credit for exporters.
- It will help make Indian exports competitive.
- It will make ECGC procedures exporter friendly.
- The insurance cover is expected to bring down the cost of credit due to capital relief, less provision requirement and liquidity due to quick settlement of claims.
- It will ensure timely and adequate working capital to the export sector.

About ECGC:

- The Export Credit Guarantee Corporation of India (ECGC) is a fully government-owned company that was established in 1957 to promote exports by providing credit insurance services.
- The ECGC provides Export Credit Insurance to Banks (ECIB) to protect the banks from losses on account of export credit at the Pre and Post-Shipment stage given to exporters due to the risks of insolvency or protracted default of the exporter borrower.

Sources: pib.

4. UNITARY TAXATION SYSTEM FOR MNES

What to study?

- For Prelims and mains: Unitary taxation- need, Significance, challenges and outcomes.

Context: United Nations Conference on Trade and Development (UNCTAD) in its **Trade and Development Report 2019** has recommended for the adoption of a **unitary taxation system for the Multi-National Enterprises (MNEs)**.

The proposal:

- The profits of MNEs are generated collectively at the group level. Hence, unitary taxation should be applied by combining it with a global minimum effective corporate tax rate on all MNE profits.

- Such an approach would simplify the global taxation system and is expected to increase tax revenues for all countries.

Need for and significance:

- There was a dire need for this change, as the current international corporate taxation norms consider affiliates of MNEs as independent entities and treat taxable transactions between different entities of MNEs as unrelated.
- The fiscal revenues of a country could be augmented through fair taxation of the digital economy.

Concerns:

- The tax-motivated illicit financial flows of MNEs are estimated to deprive developing countries of \$50 billion to \$200 billion a year in terms of the fiscal revenues.

Background:

- The international tax system needs a paradigm shift. The rules devised over 80 years ago treat the different parts of a multinational enterprise as if they were independent entities, although they also give national tax authorities powers to adjust the accounts of these entities.
- This creates a perverse incentive for multinationals to create ever more complex groups in order to minimise taxes, exploiting the various definitions of the residence of legal persons and the source of income.
- While states may attempt to combat these strategies, they also compete to offer tax incentives, many of which facilitate such techniques to undermine other countries' taxes.

Sources: the Hindu.

5. IMD WORLD DIGITAL COMPETITIVENESS RANKING 2019

What is it?

- Now in its third year, the IMD World Digital Competitiveness Ranking measures the capacity and readiness of 63 economies to adopt and explore digital technologies as a key driver for economic transformation in business, government and wider society.
- The ranking is produced by the IMD World Competitiveness Center.
- To evaluate an economy, WDCR examines three factors: Knowledge, the capacity to understand and learn the new technologies; technology, the competence to develop new digital innovations; and future readiness, the preparedness for the coming developments.

Key performers:

- India rose from 48th place in 2018 to 44th rank this year.
 - US was ranked as the world's most digitally competitive economy, followed by Singapore in the second place.
 - Sweden was ranked third on the list, followed by Denmark and Switzerland in the 4th and 5th place, respectively.
- Others in the list of top-10 most digitally competitive economy include Netherlands in the 6th place, Finland (7th), Hong Kong SAR (8th), Norway (9th) and Republic of Korea (10th).
- The largest jump in the overall ranking was registered by China, moving from 30th to 22nd, and Indonesia, from 62nd to 56th.

Key trends:

About United Nations Conference on Trade and Development (UNCTAD):

- UNCTAD is a permanent intergovernmental body established by the United Nations General Assembly in 1964.
- It is part of the UN Secretariat.
- It reports to the UN General Assembly and the Economic and Social Council, but has its own membership, leadership, and budget.
- It is also a part of the United Nations Development Group.
- It supports developing countries to access the benefits of a globalized economy more fairly and effectively. Along with other UN departments and agencies, it also measures the progress made in the Sustainable Development Goals, as set out in Agenda 2030.

Reports published by UNCTAD are:

- Trade and Development Report
- World Investment Report
- Technology and Innovation Report
- Digital Economy Report

- Many Asian nations showed significant growth from last year in digital competitiveness, as Hong Kong and South Korea entered the top 10 for the first time, Taiwan moved up to the 13th place and China made a huge jump from the 30th position to the 22nd.
- Indonesia also showed massive growth by rising to 56th rank from its 62nd rank in 2018. China showed significant improvement in the knowledge factor.
- India also showed significant improvement by jumping up four places. In knowledge factor, India fared best in graduates in sciences and R&D productivity by publication.
- India fared best in the technology factor, especially in the telecommunications investment and IT& media stock market capitalization. India has to still, however, work on enforcing contracts, mobile broadband subscribers, wireless broadband and internet users.
- In future-readiness, India fared best in world robots distribution and requires to work more on tablet possession.

Sources: the Hindu.

6. INDUSTRY 4.0

What to study?

- For Prelims and mains: What is it, significance, potential, challenges and ways to address them.

Context: The Ministry of Railways and Department of Science & Technology have joined hands in partnership with IIT Kanpur for taking up a unique project on '**Industry 4.0**' by launching a Pilot Project for implementation at Modern Coach Factory, Raebareli.

Benefits and outcomes:

- Full transition to the digital factory using 'Industry 4.0' across entire value chain from design to production will help enhance productivity hugely by providing insight into production process to take the decisions in real time basis, minimizing human errors by effective monitoring to ensure that resources are put to the best utilization measured by, what is called the **Overall Equipment Effectiveness (OEE)**.

What is 'Industry 4.0'?

- Commonly referred to as **the fourth industrial revolution**, it is a name given to the current trend of **automation, interconnectivity and data exchange in manufacturing technologies** to increase productivity.
- Industry 4.0 is a **complex Cyber-Physical Systems** which synergizes production with digital technologies, the Internet of Things, Artificial Intelligence, Big Data & Analytics, Machine Learning and Cloud Computing.

Background:

- There are **four distinct industrial revolutions** that the world either has experienced or continues to experience today.
- **First Industrial Revolution:** Happened between the late 1700s and early 1800s. During this period of time, manufacturing evolved from focusing on manual labor performed by people and aided by work animals to a more optimized form of labor performed by people through the use of water and steam-powered engines and other types of machine tools.
- **Second Industrial Revolution:** In the early part of the 20th century, the world entered a second industrial revolution with the introduction of steel and use of electricity in factories. The introduction of electricity enabled manufacturers to increase efficiency and helped make factory machinery more mobile. It was during this phase that mass production concepts like the assembly line were introduced as a way to boost productivity.
- **Third Industrial Revolution:** Starting in the late 1950s, it slowly began to emerge, as manufacturers began incorporating more electronic—and eventually computer—technology into their factories. During this period, manufacturers began experiencing a shift that put less emphasis on analog and mechanical technology and more on digital technology and automation software.

Sources: pib.

Industrial Revolution 4.0 can help in transforming India by:

1. Alleviating poverty.
2. Better and low-cost healthcare.
3. Enhancing farmer's income.
4. Providing new technology and equipment to farmers.
5. Strengthening infrastructure, improving connectivity.
6. Improve ease of living and ease of doing business.

Topics: Inclusive growth and issues arising from it.

DRAFT NATIONAL RESOURCE EFFICIENCY POLICY

What to study?

- For Prelims: Key features of the policy.
- For Mains: Resource efficiency- need, significance, challenges and means to achieve it, NITI Aayog's strategy on resource efficiency.

Context: Concerns over resource depletion have soared in India because of rising factory output, urbanization and population putting pressure on existing resources.

- Against this backdrop, the Union environment ministry has drafted a **National Resource Efficiency Policy**, aiming **to double the recycling rate of key materials to 50% in the next five years and enable upcycling of waste.**

Key features of the policy:

- It seeks to set up a **National Resource Efficiency Authority (NREA)** with a core working group housed in the Ministry of Environment, Forest and Climate Change and a members group with representations from different ministries, state/union territory, and other stakeholders.
- The authority would be supported by an **Inter-Ministerial National Resource Efficiency Board** to guide on the aspects critical to its implementation.
- It also plans to **offer tax benefits** on recycled materials, green loans to small and medium Enterprises (SMEs) and soft loans to construct waste disposal facilities, apart from setting up **Material Recovery Facilities (MRF)**.
- Manufacturers and service providers would also be required to use more recycled or renewable materials and awareness would be created among consumers to indicate the shift.
- Idea of the national policy is to drive the country towards **circular economy** through efficient use of available material resources, based on principle of 6R and 'green public procurement'.
- **The 6R stands for reduce, reuse, recycle, redesign, re-manufacture and refurbish** while the very premise of 'green public procurement' is to procure products with lower environmental footprints such as secondary raw materials and locally sourced materials.
- It also pitches for moving towards '**zero landfill**' approach in the country, hinting at possibility of imposing 'landfill taxes' and 'high tipping fees' for bulk generators of waste so that they can move towards optimal use of materials and better waste management.

Functions of NERA:

- Develop and implement resource efficient strategies for material recycling, reuse and land-filling targets for various sectors.
- Set standards for reuse of secondary raw materials to ensure quality.
- Maintain a database of material use and waste generated, recycled and land filled, across various sectors and different regions and monitor the implementation.

What is Resource Efficiency?

- Resource efficiency very simply put is **making more with fewer materials**. In practice, through a life-cycle approach, it leads to minimizing impact on environment & the associated societal burdens, transforming 'waste' into 'resources' fostering circular economy, and strengthening resource security.
- **Resource Efficiency and Circular Economy are important goals and central principles for achieving sustainable development.** Sustainability is a global priority and SDGs commitment and 11th Five year plan also clearly enunciate importance of Resource efficiency (RE).

Why ensure resource efficiency?

- India's large population, rapid urbanization and expanding industrial production have led to **exploitation of available limited natural resources with concerns regarding resource depletion and future availability becoming more pronounced**.
- Therefore, **Enhancing resource efficiency (RE) and promoting the use of secondary raw materials (SRM) is a pertinent strategy to address these challenges and reduce dependence on primary resource.**

Challenges before India:

- According to data available, India's resource extraction of 1580 tonnes/acre is much higher than the world average of 450 tonnes/acre, while material productivity remains low.
- Water is fast becoming scarce while deteriorating air quality has emerged as a major threat to human life.
- There has been massive soil degradation, with 147 million hectares (Mha) of a total of 329 Mha land area hit.
- Import dependency is nearly 100% for the majority of the 'most critical' materials -cobalt, copper and lithium that find extensive application in high-end technology industry.
- Over 80% of crude oil that is processed in the economy is imported, alongwith 85% of its coking coal demand. Extraction of non-metallic minerals is crippled with challenges.
- To add to the problems, the country's recycling rate is just about 20-25% compared with 70% in developing countries in Europe. The situation will only aggravate as India is likely to double its material consumption by 2030.

Plan of action

Rising factory output, urbanization and population are putting pressure on the country's existing resources.



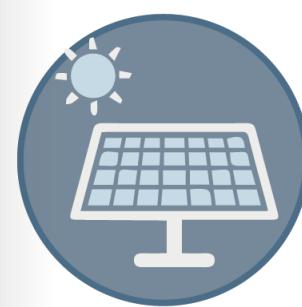
CURRENT STATUS

- 20-25% of recycling rate, much lower compared to 70% in developed countries
- 1,580 tonnes/acre is India's resource extraction. (World average is 450 tonnes/acre)
- Third highest CO₂ emitter, responsible for 6.9% of global CO₂ emissions
- Highest water withdrawal globally for agriculture
- 30% of land undergoing degradation



TARGETS

- 50% recycling rate to be achieved by 2025 for aluminium, and 90% by 2030
- By 2030, domestic scrap to fulfil 50% of the total aluminium scrap requirement
- 40% is the targeted rate of utilization of dross by 2025 and 80% by 2030
- Zero import of steel scrap for recycled steel production by 2030
- By 2020 penalty mechanism for violation of e-waste management rules



POLICY STEPS

- Setting up solar panel recycling infrastructure
- Transition to 'zero waste' by converting solid waste to value added products
- Promotion of aluminium scrappage and recycling
- Creation of zonal scrap collection, segregation and treatment facilities
- Quality standards for recycled products, develop codes and standards

Strategy on Resource Efficiency:

- NITI Aayog in collaboration with the European Union delegation to India have released the Strategy on Resource Efficiency. The strategy aims to promote resource efficiency in India.
- This strategy is the first policy document to emphasize resource productivity in the country. The Strategy emphasizes on Sustainable Public Procurement (SSP) as an action agenda which will be the market transformation tool to transform to a resource efficient economy.
- It is developed with the recommendations from the Indian Resource Efficiency Programme (IREP), launched by the Indian Ministry of Environment, Forests and Climate Change (MoEFCC) and Indian Resource Panel (InRP) in April 2017.

Sources: pib.

Topics: Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.

BAN ON EXPORT OF ONION

What to study?

- For Prelims: Why onion prices are on rise? Overview of the policy.
- For Mains: Can the ban help? What else can be done?

Context: In a bid to tame onion prices, which have doubled in the domestic retail market since July, the government has taken the following decisions;

- Banned exports of all varieties of onion.
- Imposed stock limits on onion traders to facilitate release of stocks and prevent hoarding by traders.
- In this regard, **Commerce and industry ministry** amended the **export policy of onion**, making it 'prohibited' from 'free' earlier.

Implications:

- Retail traders across the country will now be able to stock only up to 100 quintals of onion while wholesale traders will be allowed to stock up to 500 quintals.

What do experts say?

- A ban is an irrational, and sub-optimal solution. Instead, efforts should be channelized into investing in scientific storage and processing facilities that will help augment supplies during a crisis.

Need of the hour:

- Promote modern cold storages and develop a system similar to that of the warehouse receipt system for farmers.
- States must launch a concerted intelligence drive to crack down on hoarders and bring the stocks to the market swiftly.
- Encourage imports.
- Set up onion dehydrating units and promote demand for dehydrated onions amongst large consumers.

Way ahead:

- More policy making and political attention should be devoted to raising onion output, or for that matter farm output in general. Complacency on the farm front is wholly avoidable.

Sources: pib.

Topic: Animal rearing

1. FOOT-AND-MOUTH DISEASE

What to study?

- For Prelims: About the disease, its spread, symptoms and need for eradication.

Context: PM to launch **National Animal Disease Control Programme** for Foot and Mouth Disease.

- It is a **100% centrally funded programme**, with a total outlay of Rs.12,652 crore from 2019 to 2024.
- It aims to control Foot and Mouth Disease and Brucellosis by 2025 with vaccination and eventual eradication by 2030.

About Foot-and-mouth disease:

- It is an infectious and sometimes fatal viral disease.
- Affects cloven-hoofed animals, including domestic and wild bovids.
- Symptoms: The virus causes a high fever for two or three days, followed by blisters inside the mouth and on the feet that may rupture and cause lameness.
- The virus responsible for the disease is a **picornavirus**, the prototypic member of the genus Aphthovirus.

Spread of the disease and Concerns associated:

- Foot-and-mouth disease (FMD) has severe **implications for animal farming**, since it is highly infectious and can be spread by infected animals through aerosols, through contact with contaminated farming equipment, vehicles, clothing, or feed, and by domestic and wild predators.

Can Humans be affected?

- **Humans can be infected** with foot-and-mouth disease through contact with infected animals, but this is extremely rare. Some cases were caused by laboratory accidents. Because the virus that causes FMD is sensitive to stomach acid, it cannot spread to humans via consumption of infected meat, except in the mouth before the meat is swallowed. Symptoms of FMD in humans include malaise, fever, vomiting, red ulcerative lesions (surface-eroding damaged spots) of the oral tissues, and sometimes vesicular lesions (small blisters) of the skin.

Sources: pib.

2. NATIONAL ANIMAL DISEASE CONTROL PROGRAMME (NADCP)

What to study?

- For Prelims: Key features of NADCP, About FMD and Brucellosis.
- For Mains: Need for interventions, concerns associated and significance of such programmes.

Context: The government is all set to launch the **National Animal Disease Control Programme (NADCP)**.

- **Aim:** To eradicate **Foot and Mouth Disease (FMD)** and **Brucellosis in the livestock**.

About National Disease Control Programme:

Objectives of the programme:

- To Vaccinate more than 500 Million Livestock including cattle, buffalo, sheep, goats and pigs against Foot and Mouth Disease (FMD).
- To Vaccinate 36 Million Female Bovine Calves annually in its fight against Brucellosis disease.

Targets:

- Controlling of diseases by 2025.
- Eradication of by 2030.

Funding:

- **100% funding from Central Government, of Rs.12,652 Crores for a period of 5 years till 2024.**

Need:

- The disease of FMD and brucellosis are common among livestock such as- cow, buffaloes, bulls, pigs, sheep and goats. Both the diseases have a direct negative impact on trade of milk and other livestock products.
- If a cow or buffalo gets infected with FMD, the milk loss is up to 100% which could last for 4-6 months.
- In case of Brucellosis, the milk output reduces by 30% during entire life cycle of animal and also causes infertility among animals.
- Also, the infection of brucellosis can also be transmitted to farm workers and livestock owners.

Sources: pib.

3. AFRICAN SWINE FEVER (ASF)

What to study?

- For Prelims and mains: The Disease, spread, symptoms and concerns.

Brucellosis in Humans

Brucellosis is the name given to a bacterial infection which basically is contracted from animals usually due to consumption of unpasteurized dairy products.

Some of the Symptoms of Brucellosis are

- Fevers
- Chills
- Weakness
- Lethargy
- Muscle and joint aches and pains
- Headaches.

The illustration shows a brown and white cow standing on a light blue background. To the left of the cow is a wedge of yellow cheese with a bite taken out of it. To the right is a glass of white milk. In the top right corner, there is a circular inset showing several small, yellowish spherical bacteria against a dark blue background. The watermark 'ePainAssist.com' is visible across the center of the image.

- Context:** ASF outbreak has been sweeping through swine populations in China, leading to massive mass cullings and a subsequent increase in the price of the country's favourite protein.

Background:

- ASF has been seen in other Asian countries as well. Most recently, the Philippines had to cull more than 7,000 pigs to arrest the spread of ASF.

About African Swine Fever (ASF):

- ASF is a highly contagious and fatal animal disease that infects domestic and wild pigs, typically resulting in an acute form of hemorrhagic fever.
 - It was first detected in Africa in the 1920s.
 - The mortality is close to 100 per cent, and since the fever has no cure, the only way to stop it spreading is by culling the animals.
 - ASF is not a threat to human beings since it only spreads from animals to other animals.
 - According to the FAO, "its extremely high potential for transboundary spread has placed all the countries in the region in danger and has raised the spectre of ASF once more escaping from Africa. It is a disease of growing strategic importance for global food security and household income".
- Sources: the Hindu.
-
- HOW IT SPREADS:**
- No approved vaccine against ASF (marked with a red X)
 - Biological vectors such as soft ticks
 - Virus not transmissible to humans
 - Pigs or boars: Direct contact with infected domestic or wild pigs
 - Contaminated things such as shoes, clothes, knives
 - Feed: Kitchen waste, food residues, meat from infected animals
 - Exposure to carcasses, blood from infected pigs
- ASIAN COUNTRIES HIT:**
- MONGOLIA, NORTH KOREA, CHINA, VIETNAM (Hardest hit, with 2.8 million pigs culled this year), LAOS, CAMBODIA.
- SYMPTOMS:**
- Redness of skin
 - High fever
 - Vomiting
 - Diarrhea
 - Death in 6 to 13 days
- Infographic by Rafa Estrada
Source: World Organization for Animal Health
CNA

4. FALL ARMYWORM (FAW)

What to study?

- For prelims and mains: FAW- causes, effects, concerns and measures needed.

Context: Maize crops falling victim to fall armyworm in Bihar. Reports of the pest attacking crops have been reported from a number of districts in the state, India's third-largest maize producer.

What is FAW?

- It is a native of the tropical and sub-tropical regions of the Americas.
- First detected in the African continent in 2016. Since then, it has spread to other countries such as China, Thailand, Malaysia and Sri Lanka.

- In India:** It was reported in India for the first-time in Karnataka. Within a span of only six months, almost 50 per cent of the country, including Mizoram, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Gujarat and West Bengal, has reported FAW infestations.

What makes FAW dangerous?

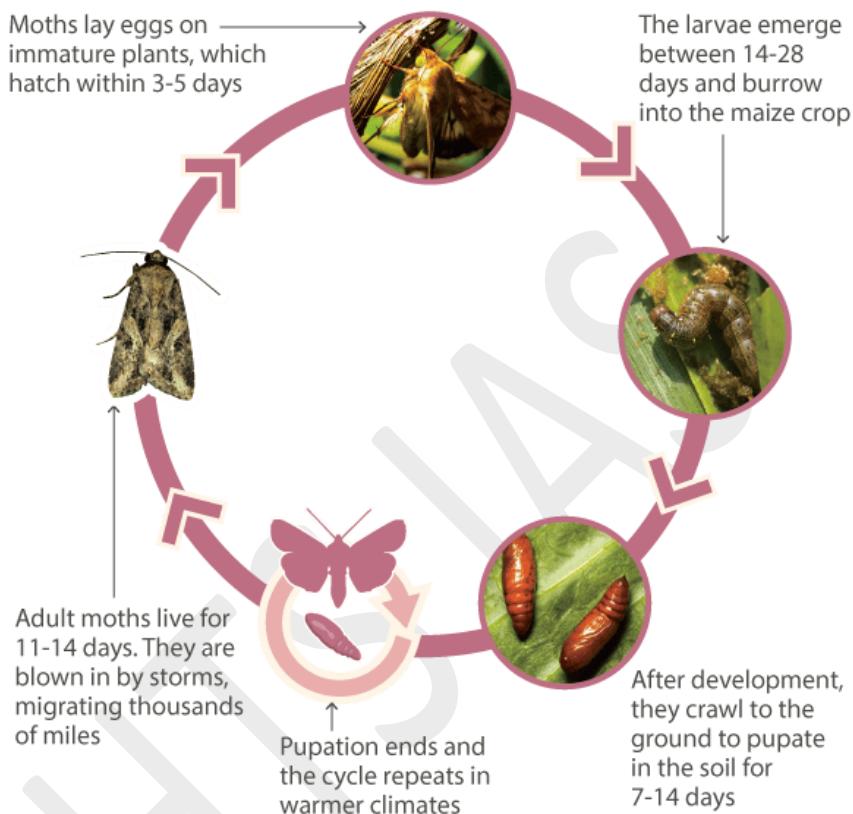
- It is the **polyphagous** (ability to feed on different kinds of food) nature of the caterpillar and the ability of the adult moth to fly more than 100 km per night.
- Given its ability to feed on multiple crops — nearly 80 different crops ranging from maize to sugarcane — FAW can attack multiple crops.
- Similarly, it **can spread across large tracts of land as it can fly over large distances.** This explains the quick spread of the pest across India.

How FAW affects output?

- Till date, India has reported FAW infestation on maize, sorghum (jowar) and sugarcane crops. Maize has been the worst affected as most maize-growing states in southern India have been affected by the pest.
- FAW infestation and drought has led to a shortfall of nearly 5 lakh tonnes in output, prompting the central government to allow import of maize under concessional duty. Maize is the third most important cereal crop grown in the country and the infestation, if not checked in time, can wreck havoc.

Sources: the Hindu.

The lifecycle of the fall armyworm



Source: International Maize and Wheat Improvement Center

Photo: Dreamstime; Alamy

FT

Topics: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions.

1. PRADHAN MANTRI KISAN MAAN DHAN YOJANA

What to study?

- For Prelims and Mains: The scheme- features, significance, need and potential?

Context: PM Modi to launch **Kisan Man Dhan Yojana.**

- Aim:** To improve the life of small and marginal farmers of the country.

Salient features of the scheme:

- The scheme is **voluntary and contributory** for farmers in the entry age group of 18 to 40 years.
- A **monthly pension of Rs. 3000/-** will be provided to them **on attaining the age of 60 years.** The spouse is also eligible to get a separate pension of Rs.3000/- upon making separate contributions to the Fund.
- Initial contribution:** The farmers will have to make a monthly contribution of Rs.55 to Rs.200, depending on their age of entry, in the Pension Fund till they reach the retirement date i.e. the age of 60 years.
- The **Central Government will also make an equal contribution** of the same amount in the pension fund.

- The Life Insurance Corporation of India (LIC) shall be the **Pension Fund Manager** and responsible for Pension pay out.
- **If there is no spouse**, then total contribution along with interest will be paid to the nominee.
- If the farmer dies after the retirement date, **the spouse will receive 50% of the pension as Family Pension**.
- After the death of both the farmer and the spouse, **the accumulated corpus shall be credited back to the Pension Fund**.
- The beneficiaries may opt **voluntarily to exit the Scheme after a minimum period of 5 years** of regular contributions.
- **In case of default in making regular contributions**, the beneficiaries are allowed to regularize the contributions by paying the outstanding dues along with prescribed interest.

Need for and Significance of the scheme:

- It is expected that at least 10 crore labourers and workers in the unorganised sector will avail the benefit of the scheme within next five years making it one of the largest pension schemes of the world.

Sources: pib.

2. MARKET INTERVENTION PRICE SCHEME

What to study?

- For Prelims: Key features of the scheme.
- For Mains: Need for and significance of the scheme.

Context: The government is planning to procure almost 12 lakh metric tonnes of apple this season, under the MISP.

About the Market Intervention Price Scheme:

- It is a **price support mechanism implemented on the request of State Governments**.
- It is for **procurement of perishable and horticultural commodities** in the event of a fall in market prices.
- The Scheme is **implemented when there is at least 10% increase in production or 10% decrease in the ruling rates over the previous normal year**.
- Its objective is **to protect the growers of these horticultural/agricultural commodities from making distress sale in the event of bumper crop during the peak arrival period when prices fall to very low level**.
- The **Department of Agriculture & Cooperation** is implementing the scheme.

Market intervention scheme



Funding:

- Under MIP, funds are not allocated to the States.
- Instead, central share of losses as per the guidelines of MIP is released to the State Governments/UTs, for which MIP has been approved, based on specific proposals received from them.
- The **area of operation is restricted to the concerned state only**.
- **The MIS has been implemented in case of commodities like apples, kinnoo/malta, garlic, oranges, galgal, grapes, mushrooms, clove, black pepper, pineapple, ginger, red-chillies, coriander seed etc.**

- The Market intervention scheme (MIS) is an ad-hoc scheme under which are included horticultural commodities and other agricultural commodities which are perishable in nature and which are not covered under the minimum price support scheme
- Government implements M.I.S. for a particular commodity on the request of a state Government concerned
- Losses suffered are shared on 50:50 basis between Central Government and the State govt.

Sources: the Hindu.

3. HOW WAIVED LOANS IMPACT STATES?

What to study?

- For Prelims: Which states have announced loan waivers in Recent past?
- For Mains: Need for, challenges and the best way out.

Context: The report of an **Internal Working Group (IWG)**, set up by RBI in February, has been released.

- The group was set up to look at, among other things, the impact of farm loan waivers on state finances.

Background:

- Since 2014-15, many state governments have announced farm loan waivers for a variety of reasons including relieving distressed farmers struggling with lower incomes in the wake of repeated droughts and demonetisation, and the timing of elections.
- Several observers of the economy including the RBI warned against the use of farm loan waivers.

Key findings:

- Farm loan waivers have dented state finances.
- In the past five years, just a handful of states have already waived three-times the amount waived by the central government in 2008-09.
- The actual waivers peaked in 2017-18 — in the wake of demonetisation and its adverse impact on farm incomes — and amounted to almost 12 per cent of the states' fiscal deficit.
- A farm loan waiver by the government implies that the government settles the private debt that a farmer owes to a bank. But doing so eats into the government's resources.
- This leads to one of following two things: either the concerned government's fiscal deficit (or, in other words, total borrowing from the market) goes up or it has to cut down its expenditure.
- A higher fiscal deficit, even if it is at the state level, implies that the amount of money available for lending to private businesses — both big and small — will be lower.
- It also means the cost at which this money would be lent (or the interest rate) would be higher. If fresh credit is costly, there will be fewer new companies, and less job creation.

Suggestions made:

- Governments — both central and state — should avoid resorting to farm loan waivers.
- Governments should undertake a holistic review of the agricultural policies and their implementation.
- Evaluate the effectiveness of current subsidy policies with regard to agri inputs and credit in a manner which will improve the overall viability of agriculture in a sustainable manner.

Conclusion:

- These findings imply that farm loan waivers, as such, are not considered prudent because they hurt overall economic growth apart from ruining the credit culture in the economy since they incentivise defaulters and penalise those who pay back their loans.
- Besides, state-level finances are just as important as the central government finances for India's macroeconomic stability and future economic growth.

Sources: the Hindu.

4. PARTICIPATORY GUARANTEE SCHEME (PGS)

What to study?

- For Prelims: Key features of the scheme.
- For Mains: Significance of the scheme, the need for certifying organic products.

Context: The head of India's food safety regulator has said that she expects the Union Agriculture Ministry's **Participatory Guarantee Scheme (PGS)** to incentivise more farmers to grow organic food.

Participatory Guarantee Scheme (PGS):

- **Union Agriculture Ministry's PGS** is a process of certifying organic products, which ensures that their production takes place in accordance with laid-down quality standards.
- The certification is in the form of a documented logo or a statement.
- According to the **International Federation of Organic Agriculture Movements (IFOAM)**, the Bonn-based global umbrella organisation for the organic agriculture movement, PGSs are "locally focused quality assurance systems" that "certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange".

Advantages of PGS:

- Procedures are simple, documents are basic, and farmers understand the local language used.
- All members live close to each other and are known to each other. As practising organic farmers themselves, they understand the processes well.
- Because peer appraisers live in the same village, they have better access to surveillance; peer appraisal instead of third-party inspections also reduces costs
- Mutual recognition and support between regional PGS groups ensures better networking for processing and marketing.
- Unlike the grower group certification system, PGS offers every farmer individual certificates, and the farmer is free to market his own produce independent of the group.

However, the operational manual also identifies some limitations of PGS:

- **PGS certification is only for farmers or communities that can organise and perform as a group within a village or a cluster of contiguous villages, and is applicable only to farm activities** such as crop production, processing, and livestock rearing, and off-farm processing “by PGS farmers of their direct products”.
- **Individual farmers or group of farmers smaller than five members are not covered under PGS.** They either have to opt for third party certification or join the existing PGS local group.

Sources: Indian Express.

5. PM – KISAN SCHEME

What to study?

- For Prelims: Key Features of the scheme.
- For Mains: Significance, relevance and need for the scheme, concerns and challenges over its implementation, is it sufficient?

Context: The government has opened **the Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) portal** for self-registration by farmers.

- **Significance of this move:** Allowing self-enrolment is expected to help farmers in other States whose names have been missed out. Many States have been slow in enrolling farmers for various reasons.

About Pradhan Mantri Kisan Samman Nidhi:

- Under this programme, vulnerable landholding farmer families, having cultivable land upto 2 hectares, will be provided **direct income support at the rate of Rs. 6,000 per year**. This income support will be transferred directly into the bank accounts of beneficiary farmers, in three equal installments of Rs. 2,000 each.
- The **complete expenditure of Rs 75000 crore for the scheme will borne by the Union Government** in 2019-20.

	Direct income support of ₹6,000 p.a for farmers, effective 01.12.2018
	To benefit 12 cr small and marginal farmer families having cultivable land upto 2 ha
	Direct transfer into the bank accounts in three equal instalments
	First installment upto 31.03.2019, to be paid this year itself ₹75,000 cr in outlay for 2019-20 and ₹20,000 cr in RE 2018-19

What is a small and marginal landholder family?

- It comprises of husband, wife and minor children up to 18 years of age, who collectively own cultivable land up to two hectare as per the land records of the concerned states.

Significance of the scheme:

- Around 12 crore small and marginal farmer families are expected to benefit from this. It would not only provide assured supplemental income to the most vulnerable farmer families, but would also meet their emergent needs especially before the harvest season. It would pave the way for the farmers to earn and live a respectable living.

Similar programmes by states:

- **Bhavantar Bhugtan Yojana in Madhya Pradesh** was sought to provide relief to farmers by providing the differential between MSPs and market prices.
- **The Rythu Bandhu scheme of the Telangana** provides ₹4,000 per acre for every season to all the farmers of the state. Similar initiatives have also been framed in Jharkhand and Odisha.
- **Krushak Assistance for Livelihood and Income augmentation (KALIA) of Odisha** is more complicated in design and implementation. It commits to give Rs 5,000 per SMF, twice a year, that is Rs 10,000 a year.

Benefits of direct cash transfers:

- Immediate impact on reducing hunger and rural poverty.
- Help households to overcome credit constraints and manage risk. This can increase productive investment, increase access to markets and stimulate local economies.
- Income support can be used to make a repayment or at least activate a bank account which can then receive a loan.
- Increase investment in agricultural inputs, including farm implements and livestock.
- Serve as an important complement to a broader rural development agenda, including a pro-poor growth strategy focusing on agriculture.

Challenges with cash transfers- criticisms:

- Cash transfers are **not greatly superior in terms of leakages** compared to other schemes of in-kind transfer such as the public distribution system (PDS).
- A targeted cash transfer scheme envisions the role of the state to only providing cash income to the poor. This kind of approach seeks to **absolve the state of its responsibility in providing basic services such as health, education, nutrition and livelihood**.
- Cash transfer scheme **cannot be substituted for subsidies and other institutional support systems** such as the National Food Security Act-powered public distribution system. In fact, such cash transfer schemes could be counterproductive and may lead to more distress.
- Cash transfer is **neither a substitute for the structural reforms needed in agriculture, nor does it adequately compensate the farmer for the risks and uncertainty of crop cultivation**.
- In the absence of proper tenancy records, it will benefit the absentee landlords.
- It is **no substitute for the lack of investment in agriculture**, which has declined at 2.3% per annum in real terms.

Sources: pib.

(Q) Discuss the significance of Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)? What are the bottlenecks in the scheme? Do you think it can serve as a path-breaking support incentive for farmers?

Topics: Infrastructure related issues.

1. ETHANOL

What to study?

- For Prelims: Ethanol blended petrol programme, National Policy on Bio-fuels.
- For Mains: Ethanol blending- significance, potential, challenges and solutions.

Context: CCEA has approved an increase in the price of **ethanol** to be procured by public sector oil marketing companies (OMCs) from sugar mills for blending with petrol for the 2019-20 supply year from December 1.

- It has also allowed **conversion of old sugar into ethanol**.

What is ethanol?

- Ethanol is basically **alcohol of 99%-plus purity**, which can be used for blending with petrol.
- **Produced mainly from** molasses, a byproduct of sugar manufacture.

Benefits of the latest move:

- There is a **huge incentive to produce ethanol today**. This has been additionally facilitated by the government mandating **10% blending of petrol with ethanol**. If mills are able to divert more of cane juice for ethanol, it

would mean producing less sugar. Since the country is producing too much sugar and is importing oil, **the ethanol-blending programme is beneficial both for mills and for the country's balance of payments.**

Benefits of ethanol blending:

- Reduction in import dependency.
- Support to agricultural sector.
- Environmental friendly fuel.
- Additional income to farmers.

About Ethanol Blended Petrol (EBP) Programme:

- **Launched** in 2003 on pilot basis.
- The aim is **to promote the use of alternative and environmental friendly fuels.**
- Implemented by **the Ministry or Oil Marketing Companies (OMCs)**.

Need:

- India is **the third largest consumer of energy** in the world after China and the US.
- India is **dependent on imports for about 82.1% of its crude oil requirement** and to the extent of about 44.4% in case of natural gas.
- India is expected to **need 10 billion litres of ethanol annually to meet the 20% blending target in 2030** if petrol consumption continues to grow at the current pace. At present, the capacity stands at 1.55 billion litres a year.

Concerns and challenges:

- Consistent **shortfall in supply of ethanol in the past**, mainly on account of the cyclical nature of the sugarcane harvests in the country.
- **Lack of an integrated approach** in the EBP across its value chain.

Way ahead:

- The **National Policy on Bio-fuels** has set a **target of 20% blending of biofuels**, both for bio-diesel and bio-ethanol. This will require an integrated approach in the Ethanol Blending Programme (EBP). The time is ripe for a cogent and consistent policy and administrative framework in the program implementation for the success of EBP.

Sources: the hindu.

2. NATIONAL INFRASTRUCTURE PIPELINE

What to study?

- For Prelims: Features of NIP.
- For Mains: Funding, need for and significance.

Context: A task force to draw up a **National Infrastructure Pipeline** for each of the financial years from 2019-20 to 2024-25 has been constituted.

- The Task Force is **chaired by** the Secretary, Department of Economic Affairs, Ministry of Finance.

About the National Infrastructure Pipeline and it's significance:

- National Infrastructure Pipeline will ensure that infrastructure projects are adequately prepared and launched.
- It would include greenfield and brownfield projects costing above Rs 100 crore each.
- Each Ministry/ Department would be responsible for the monitoring of projects so as to ensure their timely and within-cost implementation.
- It will help in stepping-up annual infrastructure investment to achieve the Gross Domestic Product (GDP) of \$5 trillion by 2024-25.

Need for infrastructure funding:

- In the past decade (2008-17), India invested about \$1.1 trillion on infrastructure.

- Availability of quality infrastructure is a pre-requisite to achieve broad-based and inclusive growth on a sustainable basis.
- Investment in infrastructure is also necessary for sustaining the high growth rate of India.
- To achieve the GDP of \$5 trillion by 2024-25, India needs to spend about \$1.4 trillion (Rs. 100 lakh crore) over these years on infrastructure.

Sources: pib.

3. ELECTRIC OR HYDROGEN CARS? WHY ASIAN ECONOMIES ARE BACKING THE LATTER

What to study?

- For Prelims: Working principles and differences between the two.
- For Mains: Why Hydrogen? Significance and challenges therein.

Context: China, Japan and South Korea have set ambitious targets to put millions of hydrogen-powered vehicles on their roads by the end of the next decade at a cost of billions of dollars.

Ambitious targets:

- China, far and away the world's biggest auto market with some 28 million vehicles sold annually, is aiming for more than 1 million hydrogen fuel cell vehicles (FCVs) in service by 2030. That compares with just 1,500 or so now, most of which are buses.
- Japan, a market of more than 5 million vehicles annually, wants to have 800,000 FCVs sold by that time from around 3,400 currently.
- South Korea, which has a car market just one third the size of Japan, has set a target of 850,000 vehicles on the road by 2030. But as of end-2018, fewer than 900 have been sold.

Why Hydrogen?

- Hydrogen is a clean energy source as **water and heat are the only byproducts**,
- It can be made from a number of sources, including methane, coal, water, even garbage.
- Driving ranges and refuelling times for FCVs are comparable to gasoline cars, whereas EVs require hours to recharge and provide only a few hundred kilometres of range.

Why haven't fuel cars caught on yet?

- A lack of refuelling stations, which are costly to build.
- There are not enough FCVs to make refuelling stations profitable.
- Consumer worries about the risk of explosions.
- Heavy subsidies are needed to bring prices down to levels of gasoline-powered cars.

Sources: the Hindu.

4. COAL GASIFICATION

What to study?

- For Prelims: What is coal gasification? Byproducts.
- For Mains: Benefits, concerns and challenges.

Context: Government has awarded **Lump Sum Turn Key (LSTK) contract** for Coal Gasification Plant PF Talcher Fertilizers Limited to M/s Wuhuan Engineering Co. Ltd, China as a part of measures to revival closed units of Fertilizer Corporation of India Ltd. (FCIL) and Hindustan Fertilizers Corporation Ltd (HFCL).

Benefits of gasification:

- Transporting gas is a lot cheaper than transporting coal.
- Help address local pollution problems.
- Has greater efficiency than conventional coal-burning because it can effectively use the gases twice: the coal gases are first cleansed of impurities and fired in a turbine to generate electricity. Then, the exhaust heat from the gas turbine can be captured and used to generate steam for a steam turbine-generator.

Concerns and challenges:

- Coal gasification is one of the more water-intensive forms of energy production.
- There are concerns about water contamination, land subsidence and disposing of waste water safely.

What is Underground coal gasification?

- The process involves pumping oxygen and steam through a small borehole into the coal seam to produce a small and controlled combustion. Unlike coal-bed methane, therefore, the actual coal is converted from a solid state into gas. The hydrogen, methane, carbon monoxide and CO₂ are then siphoned off through a second borehole.

Sources: pib.

5. HOW PM MODI'S 450 GW POWER PLAN CAN CHANGE INDIAN ECONOMY?

- **Context:** At the **global climate summit**, Prime Minister Narendra Modi made a path-breaking pledge to **more than double India's non-fossil fuel target to 450 gigawatts**.

Climate Action Summit:

- The **Climate Action Summit** aims to boost action to implement the **Paris Agreement**, which was signed in 2015.
- The Paris deal aims to **strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels** and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

Increasing the share of non-fossil fuels in India's fuel mix to 450 gigawatts (GW) can transform country's economy in three ways:

- Help to reduce India's dependence on coal, the fossil fuel which contributes to 60% of the country's total carbon emissions.
- Can make India a global leader in new cost effective solar technologies provided it can beat China, which leads in manufacturing of cheaper solar photo-voltaic and other equipment.
- Can give boost to electric mobility in India, which rightly has been the Centre's focus in the recent months.

Need of the hour:

- For being renewable innovator, India needs to focus on green technology research in premier institutes such as Indian Institute of Sciences in Bengaluru and Indian Institutes of Technology, which are working in different fields of new and renewable energy.
- India also needs to provide skill training to youth in the area, which according to New and Renewable Energy ministry can generate around 10 million jobs by 2022, India's target year to achieve 175 GW of renewable energy under the Paris climate agreement.

What should the government do?

- **Integrate energy and environment policy:** The various ministries currently engaged with energy and the environment should be collapsed into one omnibus Ministry of Energy and Environment.
- An "**Energy and Environment Security Act**" should be passed at the earliest possible opportunity.
- **Decarbonisation, demand management and efficiency** should be the watchwords of the government's energy policy.
- Intensify exploration and enhance recovery.
- Increase Natural Gas usage.

Way ahead:

- Such a transition would be a costly affair and will need easy and cost effective technology transfer from the developed western world. But, it also provides India an opportunity to innovate in reducing emissions from coal which is possible through different carbon sequestration technologies.

Sources: pib.

Topics: Science and Technology- developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and developing new technology.

1. 'SAMUDRAYAAN' PROJECT

What to study?

- For Prelims: Polymetallic nodules, features of Deep Sea Mission, ISA.
- For Mains: Significance and relevance of such missions, usefulness for India's energy security.

Context: India to undertake deep ocean mining with 'Samudrayaan' project.

About Samudrayaan:

- It is a pilot project of the Ministry of Earth Sciences for deep ocean mining for rare minerals.
- It proposes to send men into the deep sea in a submersible vehicle for ocean studies.
- The project is expected to become a reality by 2021-22.
- The project has been undertaken by the National Institute of Ocean Technology (NIOT).

Significance:

- If the 'Samudrayaan' project is successful, India will join the league of developed nations in the exploration of minerals from oceans.
- India could be the first developing country to undertake such a project.

Sources: the Hindu.

What are PMN?

- Polymetallic nodules (also known as manganese nodules) are potato-shaped, largely porous nodules found in abundance carpeting the sea floor of world oceans in deep sea.
- Composition:** Besides manganese and iron, they contain nickel, copper, cobalt, lead, molybdenum, cadmium, vanadium, titanium, of which nickel, cobalt and copper are considered to be of economic and strategic importance.
- Potential:** It is envisaged that 10% of recovery of that large reserve can meet the energy requirement of India for the next 100 years. It has been estimated that 380 million metric tonnes of polymetallic nodules are available at the bottom of the seas in the Central Indian Ocean.

2. HEAD ON GENERATION (HOG) TECHNOLOGY

What to study?

- For Prelims and mains: Features and significance of HOG and EOG technologies.

Context: Railway Ministry is upgrading all existing Linke Hofmann Busch (LHB) coaches with the Head on Generation (HOG) technology.

- Significance:** This would cause the trains to become more cost-efficient and less polluting.

What is Head on Generation (HOG) technology?

- The system runs the train's 'hotel load' (the load of air conditioning, lights, fans, and pantry, etc.) by drawing electricity from the overhead electric lines through the pantograph.
- The power supply from the overhead cable is 750 volts at single-phase, and a transformer with a winding of 945 kVA converts it to a 750 Volts 50 Hz output at 3-phase. This energy is then provided to the compartments.

How is it different from the present EOG technology?

- Under the End on Generation (EOG) system, the train's 'hotel load' (the load of air conditioning, lights, fans, and

Benefits of HOG over EOG:

- Since the HOG-fitted trains do not require power from diesel generators at all, **they only have one emergency generator car attached**, instead of two regular generator cars.
- The extra space created** would now be used for an LSLRD (LHB Second Luggage, Guard & Divyaang Compartment)-meaning **more passengers can be accommodated**.
- Cost savings would be significant:** Once all LHB trains get the new system, NR 1390 crores would be saved every year.
- HOG system is free of air and noise pollution:** It would bring down yearly CO₂ and NO_x emissions, which are currently at 1724.6 tonnes/annum and 7.48 tonnes/annum respectively, to zero.
- The reduction in emissions could also help the Railways accrue carbon credits**, and trade them on the international market.
- With the **noise-emitting generator sets gone**, noise pollution would also drop.

pantry, etc.) is provided with electricity from two large diesel generator sets, which supply 3-phase power at 750 Volts 50 Hz to the entire length of the train.

- Each coach then picks up the power supply through a 60 KVA transformer, bringing down the voltage to 110 volts at which level the equipment in the compartment is run. The generator cars are attached to either end of the train, giving the system its name.

Sources: Indian Express.

3. HIGH-TEMPERATURE PROTON EXCHANGE MEMBRANE (HTPEM) TECHNOLOGY

What to study?

- For Prelims: About fuel cells and HTPEM technology.
- For Mains: Significance and application of the technology.

Context: India's first indigenously developed high-temperature based Fuel Cell System was recently introduced. It is a 5.0 kW fuel cell system that generates power in a green manner.

- The developed fuel cells are based on High-Temperature Proton Exchange Membrane (HTPEM) technology.

Key facts:

- Developed under the Public-Private Partnership (PPP) model by the Council of Scientific and Industrial Research (CSIR) in partnership with Indian industries.
- Built under India's flagship programme named 'New Millennium Indian Technology Leadership Initiative (NMITLI)'.

How it works?

- It takes methanol or bio-methane as the input and produces heat and water as its bi-products, which can be further used. This helps to attain an efficiency that is greater than 70%, which is difficult to achieve by other energy sources.

What is HTPEM technology?

- High Temperature Proton-Exchange-Membrane (HTPEM) is the core of the fuel cells running above 150 °C. As in classical PEM fuel cells technology, Hydrogen is electrochemically split to proton and electron on anode. Proton is transported through membrane to cathode while electricity is yielded in external circuit. At cathode protons recombine with electron and reacts further with Oxygen to water and heat.
- The technology can achieve efficiency approaching 90% calculated as combined yield of electricity and heat.

Applications:

- Suitable for distributed stationary power applications like; for small offices, commercial units, data centers etc.; where highly reliable power is essential with simultaneous requirement for air-conditioning.
- It will also meet the requirement of efficient, clean and reliable backup power generator for telecom towers, remote locations and strategic applications as well.
- Replace Diesel Generating (DG) sets and help reduce India's dependence on crude oil.

Significance of HTPEM technology:

- HT-PEM Technology enables simple and cost effective fuel cell systems that can operate on fuel sources available today, such as natural gas, propane, and methanol.
- When compared to low temperature PEM fuel cells, subsystems for membrane humidification and carbon monoxide clean up from reformate can be eliminated.

The operation of polymer electrolyte membrane (PEM) fuel cells at temperatures above 150°C offers very significant advantages compared to the conventional PEM fuel cells which are listed below:

- High CO tolerance
- No need for humidified gases
- High power-to-volume ratio
- Reduced complexity
- Low cost

What is New Millennium Indian Technology Leadership Initiative (NMITLI)?

- It is the largest Public-Private-Partnership effort within the R&D domain in the country.
- It seeks to catalyze innovation centred scientific and technological developments as a vehicle to attain for Indian industry a global leadership position, in selected niche areas.
- It synergizes the best competencies of publicly funded R&D institutions, academia, and private industry.
- It has so far evolved 60 largely networked projects in diversified areas viz. Agriculture & Plant Biotechnology, General Biotechnology, Bioinformatics, Drugs & Pharmaceuticals, Chemicals, Materials, Information and Communication Technology, and Energy.

Sources: pib.

Topics: Awareness in space.

1. ASTEROID IMPACT DEFLECTION ASSESSMENT

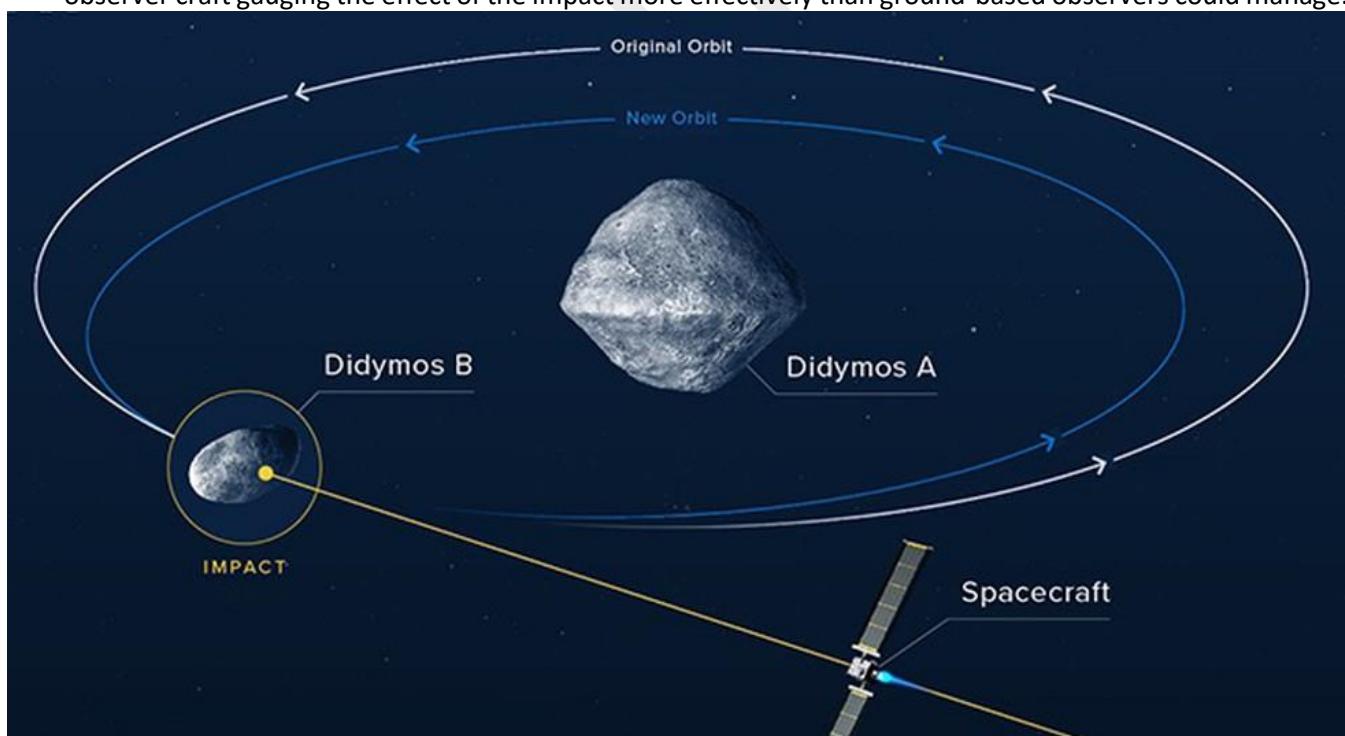
What to study?

- For Prelims and mains: Key objectives, components and significance of the mission.

Context: National Aeronautics and Space Administration (NASA) and European Space Agency (ESA) asteroid researchers and spacecraft engineers have come together to check the progress in the mission which is known as Asteroid Impact Deflection Assessment (AIDA).

About AIDA:

- Asteroid Impact Deflection Assessment (AIDA) is a joint research mission between NASA and the European Space Agency (ESA) teams.
- It aims to study the viability of diverting an asteroid by crashing a spacecraft into its surface.
- The project aims to deflect the orbit of one of the two Didymos asteroids between Earth and Mars, with an observer craft gauging the effect of the impact more effectively than ground-based observers could manage.



Sources: the Hindu.

2. CHANDRAYAAN-2

- **Context:** The status of Chandrayaan 2 mission is unknown hours after Chandrayaan 2's lander Vikram began final descent towards the moon and lost contact with ground control around 2.1 km from the lunar surface.

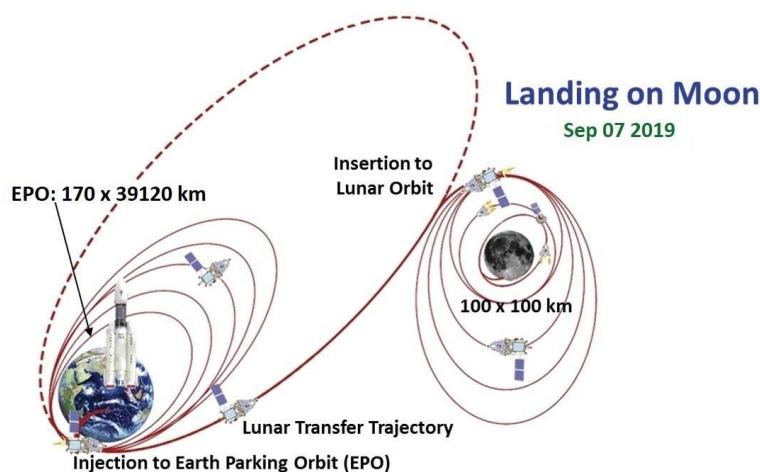
What is soft landing? How was it supposed to take place? Challenges therein?

- A soft-landing protects the object from impact while a hard landing doesn't.

- Soft-landing ensures that the object is able to carry out further experimentation on the target planet or satellite, mostly with the help of a rover vehicle.
- Soft-landing on any planetary surface is complicated. **Vikram** was to use five thrusters — four at the corners and one at the centre to make its final descent.
- Maintaining the required velocity with such thrusters is difficult as a fine balance among them needs to be maintained.
- Then there is the issue of moon dust which could wreck the engines of the thrusters.

What was supposed to happen?

- On the day of landing on September 7, the **Vikram lander** had to perform a series of complex manoeuvres, including imaging the landing site.
- **Vikram** was supposed to begin its descent from a height of 35 km above the lunar surface and a velocity of around 6,000 kmph. In just over 10 minutes, the Vikram lander had to drop to a height of 7.4 km above the Moon altitude and lower its speed to around 526 kmph.
- Further, the lander had to reduce its speed to 331.2 kmph and reach a height of 5 km above the lunar surface.
- At 100 metres above the lunar surface, the Vikram lander had to hover for about 25 seconds during which it was supposed to choose between two pre-determined landing sites.
- Four hours after landing, the **Pragyan rover** would be unloaded from the Vikram lander.



WHY THE SOUTH POLE?

- The south polar region of the Moon has not received sunlight for billions of years and is among the coldest spots in the Solar System. This, Isro says, makes **lunar south pole region ripe to contain tonnes of water and “an undisturbed record” of the Solar System’s origins**.

Sources: the Hindu.

3. LUNAR RECONNAISSANCE ORBITER (LRO)

What to study?

- For Prelims and Mains: About LRO- mission objectives, components and significance, Significance of Lunar water and benefits.

Context: ISRO is attempting to figure out what happened to **Chandrayaan-2’s Vikram** with the help of NASA’s **Lunar Reconnaissance Orbiter (LRO)**.

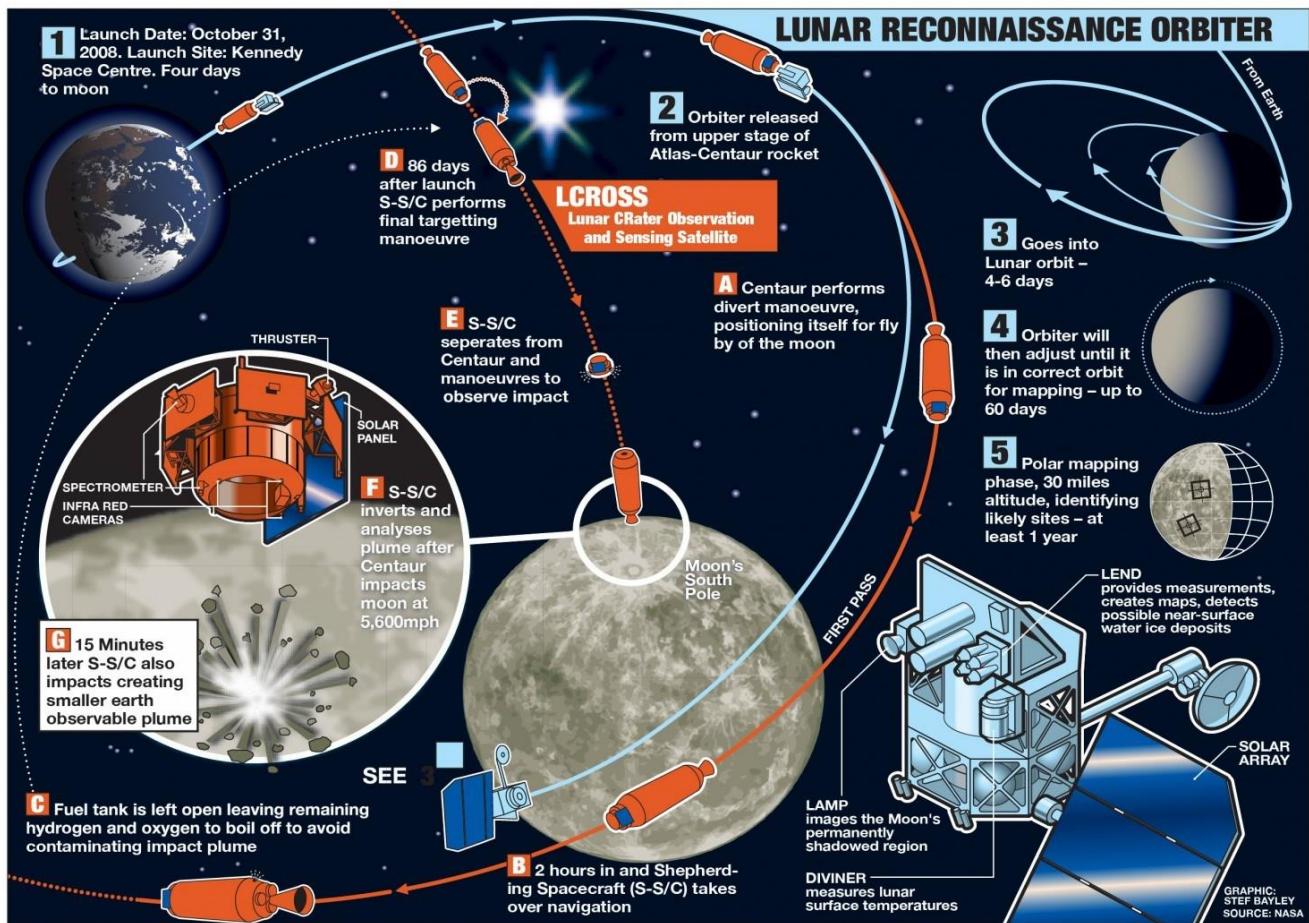
About Lunar Reconnaissance Orbiter (LRO):

- It is a **NASA mission to the moon** within the **Lunar Precursor and Robotic Program (LPRP)** in preparation for future manned missions to the moon and beyond (Mars).
- LRO is the first mission of NASA’s ‘New Vision for Space Exploration’.

The objectives of LRO are to:

- Identify potential lunar resources.
- Gather detailed maps of the lunar surface.
- Collect data on the moon’s radiation levels.
- Study the moon’s polar regions for resources that could be used in future manned missions or robotic sample return missions.
- Provide measurements to characterize future robotic explorers, human lunar landing sites and to derive measurements that can be used directly in support of future Lunar Human Exploration Systems.

Sources: The Hindu.



4. HUMAN SPACE FLIGHT PROGRAMME

What to study?

- For Prelims: Particulars of the programme.
- For Mains: Challenges involved.

Context: ISRO, DRDO sign MoU to provide critical technologies for **Human Space Mission**.

- Under the agreement, the technological capabilities existing in DRDO labs for defence applications will be customised to meet the requirements of ISRO's human space mission. DRDO will be providing critical technologies to ISRO such as space crew health monitoring and emergency survival kit, space food, parachutes for the crew module's safe recovery and radiation measurement and protection.

Indian Human Space Flight Programme:

- ISRO aims to launch its maiden **Human Space Mission, Gaganyaan** before the 75th anniversary of India's independence in 2022.

Objectives of the Mission:

- Enhancement of science and technology levels in the country
- A national project involving several institutes, academia and industry
- Improvement of industrial growth
- Inspiring youth
- Development of technology for social benefits
- Improving international collaboration

Relevance of a Manned Space Mission for India:

- **Boost to industries:** The Indian industry will find large opportunities through participation in the highly demanding Space missions. Gaganyaan Mission is expected to source nearly 60% of its equipment from the Indian private sector.

- **Employment:** According to the ISRO chief, the Gaganyaan mission would create 15,000 new employment opportunities, 13,000 of them in private industry and the space organisation would need an additional manpower of 900.
- **Technological development:** Human Space flights are frontier field in the science and technology. The challenges the Human Space Flights provide to India, and the benefits accruing from taking up those missions will be very high and will lead to further thrust for technological developments in India
- **Spurs research and development:** It will boost good research and technology development. With a large number of researchers with proper equipment involved, HSF will thrust significant research in areas such as materials processing, astro-biology, resources mining, planetary chemistry, planetary orbital calculus and many other areas
- **Motivation:** Human space flight will provide that inspiration to the youth and also the national public mainstream. It would inspire young generation into notable achievements and enable them to play their legitimate role in challenging future activities
- **Prestige:** **India will be the fourth country to launch human space mission.** The Gaganyaan will not only bring about prestige to the nation but also establish India's role as a key player in the space industry.

Sources: the hindu.

5. ADITYA- L1 MISSION

What to study?

- For prelims and mains: Key features, objectives and significance of the mission.

Context: The Indian Space Research Organization is planning to launch Aditya- L1 mission to study the sun early in 2020.

About Aditya- L1 mission:

- **What is it?** It is India's first solar mission.
- **Objectives:** It will study the sun's outer most layers, the corona and the chromospheres and collect data about coronal mass ejection, which will also yield information for space weather prediction.
- **Significance of the mission:** The data from Aditya mission will be immensely helpful in discriminating between different models for the origin of solar storms and also for constraining how the storms evolve and what path they take through the interplanetary space from the Sun to the Earth.
- **Position of the satellite:** In order to get the best science from the sun, continuous viewing of the sun is preferred without any occultation/ eclipses and hence, Aditya- L1 satellite will be placed in the halo orbit around the Lagrangian point 1 (L1) of the sun-earth system.

What are Lagrangian points and halo orbit?

- Lagrangian points are the locations in space where the combined gravitational pull of two large masses roughly balance each other. Any small mass placed at that location will remain at constant distances relative to the large masses. There are five such points in Sun-Earth system and they are denoted as L1, L2, L3, L4 and L5. A halo orbit is a periodic three-dimensional orbit near the L1, L2 or L3.

Sources: toI.

6. METHANE-POWERED ROCKET ENGINE

What to study?

- For Prelims: why methane? Benefits.
- For Mains: Challenges ahead and ways to address them.

Context: ISRO is developing two 'LOx methane' engines (liquid oxygen oxidiser and methane fuel) engines.

Why use methane?

- **Methane**, which can be **synthesised with water and carbon dioxide in space**, is often described as **the space fuel of the future**.
- **Unsymmetrical Di-Methyl Hydrazine, along with Nitrogen tetroxide for oxidiser**, currently being used by ISRO, is said to be highly toxic and cancer-causing.

- Whereas **Methane**, apart from being **non-toxic**, has a **higher specific impulse** (which means one kg of the gas can life one kg of mass for a longer time), it is **easy to store**, does **not leave a residue upon burning**, less bulky, and, importantly, can be **synthesised up in space**.

Sources: the Hindu.

7. PROJECT NETRA

What to study?

- For Prelims and Mains: Key features and significance of the project.

Context: ISRO has initiated '**Project NETRA**' – an early warning system in space to detect debris and other hazards to Indian satellites.

Significance of the project:

- The project will give India its own capability in space situational awareness (SSA) like the other space powers — which is used to 'predict' threats from debris to Indian satellites.
- NETRA's eventual goal is to capture the GEO, or geostationary orbit, scene at 36,000 km where communication satellites operate.
- The effort would make India a part of international efforts towards tracking, warning about and mitigating space debris.

Need:

- Currently there are 15 functional Indian communication satellites in the geostationary orbit of 36,000 km; 13 remote sensing satellites in LEO of up to 2,000 km; and eight navigation satellites in medium earth orbits. Their protection is utmost importance for India.

Background:

- Space junk is an ever-growing problem with more than 7,500 tonnes of redundant hardware now thought to be circling the Earth. Ranging from old rocket bodies and defunct spacecraft through to screws and even flecks of paint – this material poses a collision hazard to operational missions.
- The rising population of space debris increases the potential danger to all space vehicles, but especially to the International Space Station (ISS), space shuttles, satellites and other spacecraft.

Sources: the Hindu.

Topics: Awareness in the fields of IT, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

1. NATIONAL GENOMIC GRID (NGG)

What to study?

- For Prelims and mains: Key features, need for and significance of the grid.

Context: Recently, the government has announced to set up a **National Genomic Grid (NGG)**.

NCTB:

- National Cancer Tissue Biobank (NCTB)**, is a joint initiative of the Department of Science and Technology (DST), Government of India and Indian Institute of Technology, Madras.
- It collects cancer tissue samples with consent from patients diagnosed with cancer.

What is Project NETRA (Network for space object Tracking and Analysis)?

- Under the project, the ISRO plans to put up many observational facilities: connected radars, telescopes; data processing units and a control centre.
- They can, among others, spot, track and catalogue objects as small as 10 cm, up to a range of 3,400 km and equal to a space orbit of around 2,000 km.

About NGG:

- It will study genomic data of cancer patients from India.
- It will collect samples from cancer patients, through a network of pan-India collection centres by bringing all cancer treatment institutions on board.
- The grid to be formed will be in line with the National Cancer Tissue Biobank (NCTB) set up at the Indian Indian Institute of Technology, Madras.

- The aim is to provide researchers with high quality of cancer tissues and the patient data in order to facilitate cancer research that will lead to improvements in cancer diagnosis and treatment.
- This research is carried out through the technique of Genome Sequencing.

Significance:

- Through the National Genomic Grid, the government seeks to boost cancer research and make treatment viable for people of different economic classes.
- NGG will help to study genomic factors influencing cancer and identifying the right treatment modalities for the Indian population.

Sources: the Hindu.

2. GLOBAL ANTIMICROBIAL RESISTANCE RESEARCH AND DEVELOPMENT HUB

What to study?

- For Prelims: what is antibiotic resistance and how it occurs?
- For Mains: Issues and concerns associated and ways to address them.

Context: India joins the **Global Antimicrobial Resistance Research and Development Hub** as a new member.

About Antimicrobial Resistance (AMR) Research and Development (R&D) Hub:

- Launched in **May 2018** in the margins of the **71st session of the World Health Assembly**, following a call from **G20 Leaders in 2017**.
- **Members:** 16 countries, the European Commission, two philanthropic foundations and four international organisations (as observers).
- **Functions:** Supports global priority setting and evidence-based decision-making on the allocation of resources for AMR R&D through the identification of gaps, overlaps and potential for cross-sectoral collaboration and leveraging in AMR R&D.
- **Secretariat:** established in Berlin.
- **Finance:** through grants from the German Federal Ministry of Education and Research (BMBF) and the Federal Ministry of Health (BMG).

Benefits of this partnership for India:

- Opportunity to work with all partners to leverage their existing capabilities, resources and collectively focus on new R&D intervention to address drug resistant infections.

What is antimicrobial resistance and why is it a cause for concern?

- AMR is the ability of a microbe to resist the effects of medication that once could successfully treat the microbe.
- Today, the emergence and spread of antimicrobial resistance continues unabated around the world.

Why is the medical community worried?

- Basically, superbugs are becoming more powerful and widespread than ever. Medical experts are afraid that we're one step away from deadly, untreatable infections, since the mcr-1 E.coli is resistant to that last-resort antibiotic Colistin. Antibiotic-resistance is passed relatively easily from one bacteria to the next, since it is transmitted by way of loose genetic material that most bacteria have in common.
- The World Health Organization (WHO) is afraid of a post-antibiotic world, where loads of bacteria are superbugs. Already, infections like tuberculosis, gonorrhea, and pneumonia are becoming harder to treat with typical antibiotics.

Need of the hour:

- A multi-stakeholder approach, involving private industry, philanthropic groups and citizen activists is needed.
- Private pharmaceutical industries must take it upon themselves to distribute drugs in a responsible manner.
- Philanthropic charities must fund the development of new antibiotics, while citizen activists must drive awareness.
- These stakeholders must appreciate that the only way to postpone resistance is through improved hygiene and vaccinations.

Sources: pib.

3. QUANTUM SUPREMACY

What to study?

- For Prelims and mains: What is it? Significance.

Context: Google researchers claim to have achieved a major milestone in computer science known as “**quantum supremacy**.”

What is quantum supremacy?

- It means only that **researchers have been able to use a quantum computer to perform a single calculation that no conventional computer, even the biggest supercomputer, can perform in a reasonable amount of time.**

The case of Google:

- This calculation involved checking whether the output of an algorithm for generating random numbers was truly random.
- The researchers were able to use a quantum computer to perform this complex mathematical calculation in three minutes and 20 seconds, according to the paper.
- They say it would have taken Summit 3—an IBM-built machine that is the world’s most powerful commercially-available conventional computer—about 10,000 years to perform the same task.

How do quantum computers work?

- Quantum computers work by **harnessing the properties of quantum mechanics.**
- Quantum computers **use logical units called quantum bits, or qubits** for short, that can be put into a quantum state where they can simultaneously represent both 0 and 1.

Difference between classical and quantum computers?

- Classical computers process information in a binary format, called bits, which can represent either a 0 or 1.
- While the bits in a classical computer all operate independently from one another, in a quantum computer, the status of one qubit effects the status of all the other qubits in the system, so they can all work together to achieve a solution.

How the result I'd obtained?

- But while a conventional computer outputs the same answer to a problem every time you run a calculation, the outputs of a quantum computer are probabilistic. That means it does not always produce the same answer. So to use a quantum computer, you have to run a calculation through the system thousands or even millions of times, and the array of outputs converge around the answer that is most likely to be correct.

Sources: Indian Express.

Topics: Conservation related issues, environmental pollution and degradation, environmental impact assessment.

1. UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION (UNCCD)

What to study?

- For Prelims: UNCCD.
- For Mains: Land Degradation- issues, challenges and solutions.

Context: The 14th meeting of the Conference of Parties to the United Nations Convention to Combat Desertification (UNCCD COP 14) begins in New Delhi.

- India took over the Presidency of the COP from China.

About UNCCD:

- Established in 1994.

- It is the sole legally binding international agreement linking environment and development to sustainable land management.
- It is the only convention stemming from a direct recommendation of the Rio Conference's Agenda 21.
- To help publicise the Convention, 2006 was declared "International Year of Deserts and Desertification".
- Focus areas: The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found.
- Aim: Its 197 Parties aim, through partnerships, to implement the Convention and achieve the Sustainable Development Goals. The end goal is to protect land from over-use and drought, so it can continue to provide food, water and energy.
- The Ministry of Environment, Forest and Climate Change is the nodal Ministry for this Convention.

Need of the hour:

- Responsible land governance is key to provide an enabling environment for ecosystem restoration, biodiversity protection, land use-based adaptation and for improving the livelihoods of many small-scale farmers.
- At the UNCCD COP 14, parties to the convention have the opportunity to adopt an ambitious resolution on land tenure for Land Degradation Neutrality. They must use this opportunity to empower communities to better adapt to the impacts of the climate emergency.

Sources: the Hindu.

2. SINGLE-USE PLASTIC BAN

What to study?

- For Prelims and Mains: Ban on single-use plastics- significance.

Context: Single-use plastic items will be banned in India from October 2, 2019.

What is single-use plastic?

- A form of plastic that is disposable, which is only used once and then has to be thrown away or recycled.
- The single-use plastic items include plastic bags, water bottles, soda bottles, straws, plastic plates, cups, most food packaging and coffee stirrers.



Why is it being banned?

- With climate and environment becoming a rising global concern, plastic pollution and plastic waste management have become the focal point of worry.
- Millions of tons of plastic is being produced every year, which is not biodegradable. Hence, the countries across the globe are adopting and implementing strategies aimed at eliminating the use of single-use plastic.

India's efforts:

- India has won global acclaim for its "Beat Plastic Pollution" resolve declared on World Environment Day last year, under which it pledged to eliminate single-use plastic by 2022.

Challenges ahead:

- The ubiquitous plastic has made humans so dependent that it is virtually impossible to live without it.
- **The PWM Rules Amendment, 2018**, omitted explicit pricing of plastic bags that had been a feature of the 2016 Rules.
- **Waste plastic from packaging of everything from food, cosmetics and groceries to goods delivered by online platforms** remains unaddressed.
- **The fast moving consumer goods sector** that uses large volumes of packaging, posing a higher order challenge.
- **Lack of adequate infrastructure for segregation and collection** is the key reason for inefficient plastic waste disposal.
- Small producers of plastics are facing the ban, while **more organised entities covered by the Extended Producer Responsibility clause continue with business as usual.**

Need of the hour:

- Promoting the use of biodegradable plastics, khadi bags, cotton bags.
- Incentivising collection.
- Start charging the producers for their waste, which will lead to recovery and recycling.

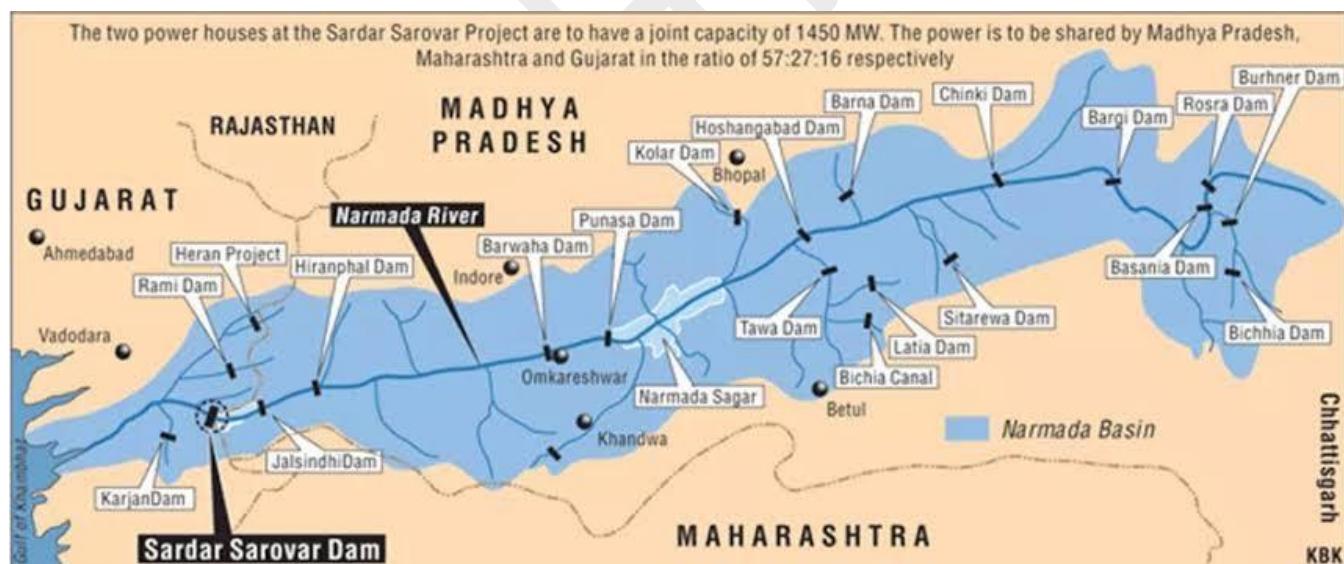
Sources: the Hindu.

3. SARDAR SAROVAR DAM

What to study?

- For Prelims: Key features of the project and Narmada river.
- For Mains: Concerns over the projects, challenges and ways to address them.

Context: Oustees displaced in Madhya Pradesh due to the backwaters of **the Sardar Sarovar Dam** in Gujarat are not convinced by the government of Madhya Pradesh's promises to help them even as they stare at continual displacement.



Background:

- The **height of the dam was increased to 138.68 metres in 2017**. The water level in the dam reached 136.04 metres on September 9, 2019, due to heavy rains. The dam is to be filled to its full reservoir level by October 15.

Various issues present:

- Compensation amounts.
- Formation of islands due to submergence.
- Inadequate number of plots and rehabilitation sites.
- Leveling of land for house construction.
- Action on people involved in fake registry of land for homes.

- Rights for the fishing community on the reservoir.
- Cases of oustees settled in Gujarat.
- Issues of farmers who have lost land for rehabilitation sites.

Sardar Sarovar project- key facts:

- Taken up after the **Narmada Water Disputes Tribunal** gave its final award vis-à-vis Gujarat-Madhya Pradesh in 1979.
- **Second biggest dam in terms of volume of concrete** used in it.
- **Third highest concrete dam** in India.
- **Power generated from the dam would be shared among three states** — Madhya Pradesh, Maharashtra and Gujarat.

What's the concern with the project?

- **Water level** in the submergence area of the dam in Barwani and Dhar districts of Madhya Pradesh is **rising steadily**.
- As per **Narmada Bachao Andolan group**, 40,000 families in 192 villages in Madhya Pradesh would be displaced when the reservoir is filled to its optimum capacity.
- According to the World Bank, the **project started with very little assessment of resettlement and rehabilitation, and environmental impact**.

Why is this project significant and what benefits has it got?

- **Unused Water** from Narmada river, which would otherwise flow into the sea, could be used for serving many dry towns, villages and districts of Gujarat.
- The project would **employ about one million people** starting from the start to end of the project.
- **Provide electricity** to the unserved regions and also to the farmers.
- **Provide water for irrigation** and for **drinking purpose**.
- Provide **flood protection** to an area of about 30,000 hectares which is prone to the fury of floods.

What needs to be done?

- **Task of rehabilitation and resettlement** of affected people should be completed immediately.
- Need of an **independent review of the project on continuous basis** to fulfil the real objectives of the project.
- Studies should take into consideration the **seasonal temporal variations in the climate and many other important parameters**.
- **Environment safeguards** should be put in place.

Sources: the Hindu.

4. FRAMEWORK FOR THE ASSESSMENT OF BENEFITS OF ACTION/COST OF INACTION FOR DROUGHT PREPAREDNESS REPORT

What to study?

- For Prelims: About UNCCD and the framework.
- For Mains: Causes and impacts of drought and ways to address them?

Context: Framework for the Assessment of Benefits of Action/Cost of Inaction for Drought Preparedness report has been released at the ongoing **14th Conference of Parties (COP14) to the United Nations Convention to Combat Desertification (UNCCD)**.

The 10-point framework:

- Appoint a national drought management policy commission
- State or define the goals and objectives of risk-based national drought management policy
- Seek stakeholder participation, define and resolve conflicts between key water use sectors
- Inventory data and financial resources available and broadly identify groups at risk
- Prepare the key tenets of the national drought management policy and preparedness plans
- Identify research needs and fill institutional gaps
- Integrate science and policy aspects of drought management

- Publicise the policy and preparedness plans, build public awareness
- Develop education programs for all age and stakeholder groups
- Evaluate and revise policy and supporting plans

Indian scenario:

- Droughts affect 42 per cent of India's land while another 6 per cent is 'exceptionally dry plane'; 40 per cent of the country's population is vulnerable to droughts.

Challenges:

- **Conditions of the political economy** often gives governments weak incentives to adopt a risk-management approach.
- **Other causes include** the lack of a holistic approach; integrating analysis and action across sectors and agencies and the political economy of aid.

What India can learn from this?

- The way to combat frequent droughts lies in **evaluating their impacts**.
- Losses due to droughts **need proper estimation**.
- More and better economic analysis could be a decisive factor in moving countries from **crisis management to risk management**.

Sources: the Hindu.

5. BASEL BAN AMENDMENT

What to study?

- For prelims and mains: features, need for and significance of the convention.

Context: The **1995 Basel Ban Amendment**, a global waste dumping prohibition, has become an international law after **Croatia** (97th country to ratify) **ratified it on September 6, 2019**.

What next?

- It will become a new Article in the Convention and will enter into force in the 97 countries after 90 days — on December 5.

Basel Convention — Control of Transboundary Movements of Hazardous Wastes and Their Disposal:

- Opened for signature on 22 March 1989
- entered into force on 5 May 1992
- Parties — 187.
- It is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs).
- It does not address the movement of radioactive waste.

Sources: down to earth.

About the 1995 Basel Ban Amendment:

- Adopted by the parties to the **Basel Convention in 1995**.
- To protect human health and the environment against the adverse effects of hazardous wastes.
- The amendment prohibits all export of hazardous wastes, including electronic wastes and obsolete ships from 29 wealthiest countries of the Organization of Economic Cooperation and Development (OECD) to non-OECD countries.

6. A CASE FOR DIFFERENTIAL GLOBAL CARBON TAX

What to study?

- For Prelims: About carbon tax and features of it.
- For Mains: Challenges due to uneven sharing of burden, what needs to be done?

Concerns raised by the Recent IPCC report:

- Total global emissions will need to fall by 45% from 2010 levels by 2030 and reach net zero by 2050.
- If these targets are not met, tropical regions of the world, which are densely populated in the global South are likely to be most negatively affected because of their low altitudes and pre-existing high temperatures.

What's the issue now?

- The global South has always contributed less to the problem and even at present its per capita carbon emissions are much smaller in comparison to the countries in the global North. But, the price being paid it to changing climate is huge.
- Some impact of this was already felt during the Tamil Nadu water crisis this year.

What needs to be done?

- At this point, burden of adjustment cannot be equal when the underlying relationship between the two worlds has been historically unequal.
- A just approach would involve a global sharing of responsibility among countries according to their respective shares in global emissions.
- **Just Energy Transition (JET) model:** Premised on a sense of global justice in terms of climatic fallouts and the respective contributions of the countries. It will also help the resource-poor developing countries to make the energy transition without having to worry about finances unduly.
- **Burden sharing:** Apart from funding their own energy transition, countries should partially support the transition for the countries at the bottom. This sharing of the burden of development should be done in a way that inverts this injustice funnel. Countries have to spend around 1.5% of their GDP.

Need of the hour:

- A genuine global consensus on the mitigation of this problem.
- Both worlds need to contribute to averting this danger in their self-interest.

Sources: the Hindu.

7. GROUNDWATER CRISIS

What to study?

- For Prelims and Mains: Groundwater crisis- causes, extent, concerns, challenges and measures by govt to save groundwater.

Context: Expressing concern over depleting groundwater levels, the **National Green Tribunal (NGT)** has set up a committee to formulate steps required to prevent illegal extraction of groundwater.

Why conserve groundwater?

- Groundwater reserves are already under pressure as the global population explodes and crop production rises in lockstep.
- Extreme weather events such as drought and record rainfall — have both made worse by our heating planet — could have another long-lasting impact on how quickly reserves replenish.
- Only half of all groundwater supplies are likely to fully replenish or re-balance within the next 100 years — potentially leading to shortages in drier areas.
- The process through which rainwater is filtered through bedrock and accumulated underground can take centuries and varies greatly by region.
- As climate change delivers longer droughts and bigger superstorms, the extremes of rainfall become more pronounced, impacting groundwater reserves for generations to come.

Situation of groundwater in India:

- Today, India is the largest user of the groundwater in the world with almost 90% being used for drinking water and almost 60-70% for irrigation. Current statistics also show that nearly 50% of urban water supply comes from groundwater. India is on the threshold of a very serious groundwater crisis, which needs mitigation both in the fields and at the policy corridors of the country.

Need of the hour:

- There is a need to modernise the regulatory framework for accessing groundwater soon after massive expansion in mechanical pumping led to the realisation that recharge could not keep pace with use.

Sources: the hindu.

8. INTERNATIONAL DAY FOR THE PRESERVATION OF THE OZONE LAYER

What to study?

- For Prelims: Key facts on Montreal protocol and Ozone day.
- For Mains: Significance of the Ozone layer and the need for protection.

Context: The International Day for Preservation of Ozone Layer (or World Ozone Day) is observed every year on September 16 for the preservation of the Ozone Layer.

- **World Ozone Day 2019 Theme:** 32 Years and Healing.

Significance of the day:

- In 1994, the UN General Assembly proclaimed **16 September the International Day for the Preservation of the Ozone Layer**, commemorating the date of the signing, in 1987, of the **Montreal Protocol on Substances that Deplete the Ozone Layer**.

What you need to know about the Ozone layer?

- Absorbs most of the **Sun's ultraviolet light** which is harmful to human life and other life forms.
- Absorbs about **97 to 99% of ultraviolet rays** and maintain the ozone-oxygen cycle.

Montreal Protocol on Substances that Deplete the Ozone Layer:

- Designed to reduce the production and consumption of ozone depleting substances in order to reduce their abundance in the atmosphere, and thereby protect the earth's fragile ozone Layer.
- The original Montreal Protocol was **agreed on 16 September 1987 and entered into force on 1 January 1989**.
- The Protocol **includes a unique adjustment provision** that enables the Parties to the Protocol **to respond quickly to new scientific information and agree to accelerate the reductions required** on chemicals already covered by the Protocol.
- These adjustments are then **automatically applicable to all countries** that ratified the Protocol.

Target:

- Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—**chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform**—are to be phased out by 2000 (2005 for methyl chloroform).

Sources: the hindu.

9. INDIA COOLING ACTION PLAN (ICAP)

What to study?

- For Prelims and Mains: Highlights and significance of ICAP.

Context: India's Cooling Action Plan (ICAP) has received appreciation from the UN on World Ozone Day.

Significance of ICAP:

- India is the **first country in world to develop such a document**.

The goals emerging from the suggested interventions stated in ICAP are:

- **Reduction of cooling demand** across sectors by 20% to 25 % by year 2037-38.
- **Reduction of refrigerant demand** by 25% to 30% by year 2037-38.
- **Reduction of cooling energy requirements** by 25% to 40% by year 2037-38.
- **Training and certification of 100,000 servicing sector technicians** by the year 2022-23, in synergy with Skill India Mission.
- **Recognize "cooling and related areas"** as a thrust area of research under the national S&T Programme.

The broad objectives of the India Cooling Action Plan include:

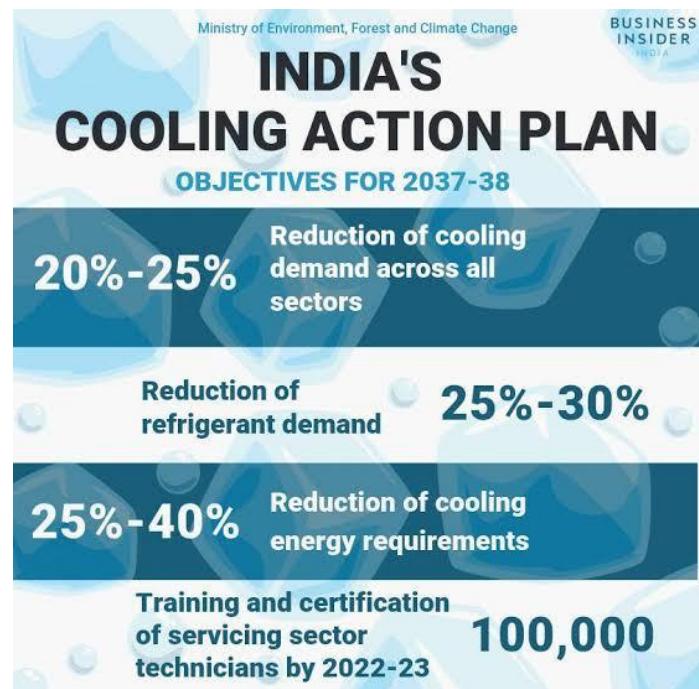
- **Assessment** of cooling requirements across sectors in next 20 years and the associated refrigerant demand and energy use.
- **Map** the technologies available to cater the cooling requirement including passive interventions, refrigerant-based technologies and alternative technologies such as not-in-kind technologies.

- **Suggest interventions** in each sector to provide for sustainable cooling and thermal comfort for all.
- **Focus on skilling** of RAC service technicians.
- **Develop an R&D innovation ecosystem** for indigenous development of alternative technologies.

The following benefits would accrue to society over and above the environmental benefits:

- Thermal comfort for all – provision for cooling for EWS and LIG housing.
- Sustainable cooling – low GHG emissions related to cooling.
- Doubling Farmers Income – better cold chain infrastructure – better value of products to farmers, less wastage of produce.
- Skilled workforce for better livelihoods and environmental protection.
- Make in India – domestic manufacturing of air-conditioning and related cooling equipment's.
- Robust R&D on alternative cooling technologies – to provide the push to innovation in a cooling sector.

Sources: the Hindu.



10. SHOLA GRASSLANDS

What to study?

- For Prelims: What are they? Where are they found?
- For Mains: Threats, need for conservation.

Context: Expanding plantations of exotic species, including tea, in the Nilgiris can wipe out Shola vegetation, according to a report filed by an expert committee formed by the Madras High Court.

Key findings:

- This change in vegetation will result in loss of water sources and is already leading to massive landslides.
- Invasive species like eucalyptus, tea plantations and wattle and naturalised alien species like Lantana camara, Opuntia stricta, Chromolaena odorata, Parthenium hysterophorus and Senna spectabilis have had a serious impact on the Shola forest and grasslands.

What are Shola Grasslands?

- The Shola vegetation are tropical montane forests found in the Western Ghats separated by rolling grasslands in high altitudes.
- Shola grasslands consist of dwarf trees growing 25-30 feet.
- It is a stunted forest growths of diverse grass species.
- Vegetation is double layered storey with closed canopy which hardly permits a single ray of sunlight to penetrate in the natural vegetation.
- Nilgiris upper region is classified as southern grassland mountain grassland.
- Between 1973-2014 Shola grasslands area had seen a 66.7% decline.

Significance:

- The Shola forests and associated grasslands store large quantities of water on the mountain ranges, thus serving as huge 'water harvesting and storage structures'.
- Many of the rivers in Kerala and Tamil Nadu originate from the Shola grasslands and



were perennial. With depletion of Sholas and other forests, the streams that supply water to them dry up in summer.

- They are rich store houses of biodiversity and also home to extremely rich wildlife.

Concerns:

- Shola grasslands which are critical habitats for many species, continue to be viewed as lower priority or grassy blanks
- As grasslands vanish or become more fragmented, local flora and fauna, particularly endemic species such as Nilgiri Pipit, may be under threat.
- In the Palani hill range of Western Ghats.

Threats:

- The Forest Departments of Kerala and Tamil Nadu, besides private planters, were responsible for large-scale destruction of Sholas during the past two centuries
- **Expanding agriculture** – agriculture and fallow land have increased three times to 100 sq.km. in the past four decades.
- **The spread of invasive species** like acacia have eaten into as much as two-thirds of natural grasslands.
- **Fire** is also one of the major factor which not only depletes undergrowth but also facilitates the seed germination of fast invading, weed plants by breaking seed dormancy.
- **Development of tourism** in places such as Udhagamandalam, Ponmudi (Thiruvananthapuram district) and Munnar is also leading to destruction of Shola grasslands.

Need for conservation:

- Shola is a very sensitive type of vegetation. Once it vanishes from its original habitat, it is very difficult to make it reappear in view of the change in climate which does not allow shola seedling to grow in open grasslands.

Sources: Down to earth.

11. STUBBLE BURNING

What to study?

- For Prelims and Mains: Crop burning- why, concerns, effects on environment and health, their regulation and the need for a comprehensive policy on this.

Context: As many as eight districts in Punjab and three in Haryana have been identified as contributing around 62% of the total crop burning emission, as per an analysis done by a team of experts at the Indian Institute of Technology, Delhi (IIT-D).

What is stubble burning?

- Stubble burning is a common practice followed by farmers to prepare fields for sowing of wheat in November as there is little time left between the harvesting of paddy and sowing of wheat.
- **Impact:** Stubble burning results in emission of harmful gases such carbon dioxide, sulphur dioxide, nitrogen dioxide along with particulate matter.

Why farmers opt for stubble burning?

- They do not have alternatives for utilising them effectively.
- The farmers are ill-equipped to deal with waste because they cannot afford the new technology that is available to handle the waste material.
- With less income due to crop damage, farmers are likely to be inclined to light up their fields to cut costs and not spend on scientific ways of stubble management.

Advantages of stubble burning:

- It quickly clears the field and is the cheapest alternative.
- Kills weeds, including those resistant to herbicide.
- Kills slugs and other pests.
- Can reduce nitrogen tie-up.

Alternative solutions that can avoid Stubble Burning:

- Promote **paddy straw-based power plants**. It will also create employment opportunities.
- **Incorporation of crop residues in the soil** can improve soil moisture and help activate the growth of soil microorganisms for better plant growth.
- Convert the removed residues into enriched organic manure through **composting**.
- New opportunities for **industrial use** such as extraction of yeast protein can be explored through scientific research.

Need of the hour:

- Unless Financial assistance is to be provided by the Centre for boosting farm mechanisation, it is difficult to completely stop stubble burning.
- States needs to make alternative arrangements for consumption of paddy straw into the soil as per the directions of the NGT.

What needs to be done- Supreme Court's observations?

- **Incentives** could be provided to those who are not burning the stubble and disincentives for those who continue the practice.
- The existing **Minimum Support Price (MSP) Scheme** must be so interpreted as to enable the States concerned to wholly or partly deny the benefit of MSP to those who continue to burn the crop residue.
- The Central government should **convene a meeting with the States**.

Sources: the Hindu.

12. EMISSIONS TRADING SCHEME (ETS)

What to study?

- For prelims: key features of the program.
- For mains: significance, need and potential of such programs, challenges ahead and ways to address them.

What is it?

- Launched in Surat by Gujarat Government, the Emissions Trading Scheme (ETS) is a regulatory tool that is aimed at reducing the pollution load in an area and at the same time minimising the cost of compliance for the industry.
- ETS is a market in which the traded commodity is particulate matter emissions.
- It is also being described as the world's first market for trading in particulate matter emissions.

How is it being implemented?

- The **Gujarat Pollution Control Board (GPCB)** sets a cap on the total emission load from all industries.
- Various industries can buy and sell the ability to emit particulate matter, by trading permits (in kilograms) under this cap. For this reason, ETS is also called a cap-and-trade market.

How does the trading take place?

- At the beginning of every one-month compliance period (during which one emission permit is valid), 80 per cent of the total cap of 280 tonnes for that period is distributed free to all participant units.
- These **permits are allocated based on an industry's emission sources** (boilers, heaters, generators) as this determines the amount of particulate matter emitted.
- Remaining 20 per cent of the permits will be offered during the first auction of the compliance period, at a floor price of Rs 5 per kilogram. Participating units may buy and sell permits among each other during the period.
- The price is not allowed to cross a ceiling of Rs 100 per kilogram or fall below Rs 5 per kg, both of which may be adjusted after a review.

Significance and benefits:

- The reason for trading is that in a cap and trade market, the regulator will measure pollution over a period of time and industries must own enough permits to cover their total emissions.

- Factories who find it very expensive to reduce pollution, will seek to buy more permits. Those who can easily reduce pollution are encouraged to do so because then they have excess permits to sell.
- Eventually, after buying and selling by plants that find it cheap to cut pollution and those for whom it is expensive, most pollution is taken care of.
- Whatever the final allocation, the total number of permits does not change so **the total pollution is still equal to the predefined cap. And yet the costs to industry are decreased.**

Sources: Indian Express.

13. BLACK CARBON

What to study?

- For Prelims: What is black carbon?
- For Mains: concerns associated, need for regulation.

Context: According to a recent study published, **black carbon particles emitted by the vehicular exhaust and coal-fired power plants, have been detected on the fetus-facing side of the placenta.**

- This is expected to affect the overall development of the unborn baby.

Findings:

- Concentration of black carbon particles was highest in the placentas of women who are most exposed to airborne pollutants in their daily life.
- Inhalation of these particles by the mother gets translocated from the mothers' lungs to the placenta, resulting in life-long changes to the development of the baby along with permanently damaging the lung tissues.
- The link between exposure to dirty air and increased cases of miscarriages, premature births, and low birth weights which in turn increases the chances for diabetes, asthma, stroke, heart disease and a lot of other conditions, has been established in this study.

What is Black Carbon?

- Black carbon consists of pure carbon in several linked forms. It is formed through the incomplete combustion of fossil fuels, biofuel, and biomass, and is emitted in both anthropogenic and naturally occurring soot.

Harmful effects of BC:

- Black carbon (BC) is a pollutant known to aggravate breathing disorders. Because BC particles strongly absorb solar and terrestrial radiation and heats up the atmosphere it can upset the monsoon system. If deposited on snow, it could accelerate the heating of snow and quicken the melting of glaciers.

Sources: the Hindu.

14. INDIA WATER WEEK-2019

What to study?

- For Prelims: Objectives and significance of the event.
- For Mains: Water conservation- need, challenges and measures needed.

Context: 6th India Water Week-2019 is being observed.

- It is being organised in New Delhi between 24th and 28th September 2019.
- Organized by the Department of Water Resources, River Development and Ganga Rejuvenation, the Ministry of Jal Shakti.
- Theme: 'Water Cooperation – Coping with 21st Century Challenges'.

Background:

- Conceptualized and organized for the first time in 2012, the India Water Week is a regular forum where the Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India discusses, talks, strategizes with eminent stakeholders through seminars, exhibitions and sessions to build public awareness, to get support to implement key strategies for conservation, preservation and optimum use of available water.

Sources: pib.

15. FOREST-PLUS 2.0

What to study?

- For Prelims and mains: Key features and significance of the programme.

Context: US Agency for International Development (USAID) and India's Ministry of Environment, Forest and Climate Change (MoEF&CC) have launched Forest-PLUS 2.0.

What is it?

- Forest-PLUS is a five-year programme initiated in December 2018 that focuses on developing tools and techniques to bolster ecosystem management and harnessing ecosystem services in forest landscape management.
- Forest-PLUS 2.0, the second set of pilot projects, is meant to enhance sustainable forest landscape management after Forest-PLUS completed its five years in 2017.
- The programme's first set focused on capacity building to help India participate in Reducing Emissions from Deforestation and forest Degradation (REDD+). It included four pilot projects in Sikkim, Rampur, Shivamogga and Hoshangabad.
- Under these, field tests, innovative tools and approaches for Indian forest management were developed. Promotion of bio-briquettes in Sikkim, introduction of solar heating systems in Rampur and development of an agro-forestry model in Hoshangabad were some of the achievements of this programme.
- Forest-PLUS 2.0 comprises pilot project in three landscapes — Gaya in Bihar, Thiruvananthapuram in Kerala and Medak in Telangana. The choice of these sites was driven by the contrast in their landscapes – Bihar is a forest deficit area, Telangana is a relatively drier area where there is ample scope for community livelihood enhancement and Kerala is rich in biodiversity.

The targets of this set are:

- 1,20,000 hectares of land under improved management.
- New, inclusive economic activity worth \$12 million.
- Measurable benefits accrued to 800,000 households.
- Three incentive mechanisms demonstrated in managing landscapes for ecosystem services.

To achieve these targets, the programme has three focal points of action:

- Developing tools for multiple services in forests management. The tools consist innovative apps for automating forest planning processes, model forest management plans. These tools are expected to result in enhanced water flow and quality, improved livelihoods and resilience of forest-dependent communities.
- Developing incentive-based instruments for leveraging finance. For example, a payment mechanism where a municipality or industry would pay upstream forest communities to use water flowing down because of improved forest management.
- Unlocking economic opportunities for forest-dependent people by modelling and setting up conservation enterprises and mobilising investment from the private sector.

Sources: the Hindu.

16. NEW IPCC REPORT WARNS OF DIRE THREAT TO OCEANS

- The Intergovernmental Panel on Climate Change (IPCC) released a special report- '**Special Report on the Ocean and Cryosphere in a Changing Climate**'. The report underlines the dire changes taking place in oceans, glaciers and ice-deposits on land and sea.
- It was prepared following an IPCC Panel decision in 2016 to prepare three Special Reports and follows the Special Reports on Global Warming of 1.5°C, and on Climate Change and Land (SRCCL).

Key findings:

- Over the 21st century, the ocean is projected to transition to unprecedented conditions with increased temperatures, further ocean acidification, marine heatwaves and more frequent extreme El Niño and La Niña events.

- The global ocean has warmed unabated since 1970 and has taken up more than 90% of the excess heat in the climate system.
- Since 1993, the rate of ocean warming has more than doubled.
- Marine heatwaves have very likely doubled in frequency since 1982 and are increasing in intensity.
- Floods will become more frequent and severe in the mountainous and downstream areas of the Indus, Ganges and Brahmaputra river basins, because of an increase in extreme precipitation events.

Sources: the Hindu.

17. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC)

What to study?

- For Prelims: About IPCC, working groups and assessment reports.
- For Mains: Climate change and role of IPCC in assessing these changes.

Context: IPCC Working Group III is meeting in India to further preparations of **Sixth Assessment Report**.

- More than 200 experts from 65 countries will come together to start preparing a **first draft of the report, which is due to be finalized in July 2021**.
- The meeting is **hosted by the Ministry of Environment, Forest & Climate Change**, Government of India.

Background:

- **IPCC Working Group III** is responsible for assessing the mitigation of climate change – responses and solutions to the threat of dangerous climate change by reducing emissions and enhancing sinks of the greenhouse gases that are responsible for global warming.
- **Comprehensive scientific assessment reports are published every 6 to 7 years**; the latest, the Fifth Assessment Report, was completed in 2014, and provided the main scientific input to the Paris Agreement.

What is Sixth Assessment Report (AR6)?

- It will examine topics such as the link between consumption and behaviour and greenhouse gas emissions, and the role of innovation and technology.
- It will assess the connection between short to medium-term actions and their compatibility with the long-term temperature goal in the Paris Agreement.
- It will assess mitigation options in sectors such as energy, agriculture, forestry and land use, buildings, transport and industry.

What next?

- Each of the three IPCC Working Groups will release their contributions to the Sixth Assessment Report in 2021.
- A Synthesis Report in 2022 will integrate them together with the three special reports that the IPCC is producing in the current assessment cycle.
- It will be released in time to inform the 2023 global stocktake by the United Nations Framework Convention on Climate Change (UNFCCC) when **countries will review progress towards the Paris Agreement goal of keeping global warming to well below 2°C while pursuing efforts to limit it to 1.5°C**.

About the IPCC:

- The Intergovernmental Panel on Climate Change (IPCC) is **the UN body for assessing the science related to climate change**.
- **Established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988**.
- **Aim:** to provide political leaders with periodic scientific assessments concerning climate change, its implications and risks, as well as to put forward adaptation and mitigation strategies.
- **Composition:** It has 195 member states.

The IPCC has three working groups:

- Working Group I, dealing with the physical science basis of climate change.
- Working Group II, dealing with impacts, adaptation and vulnerability.
- Working Group III, dealing with the mitigation of climate change.

Topics: Disaster and management.

1. POST DISASTER NEEDS ASSESSMENT (PDNA)

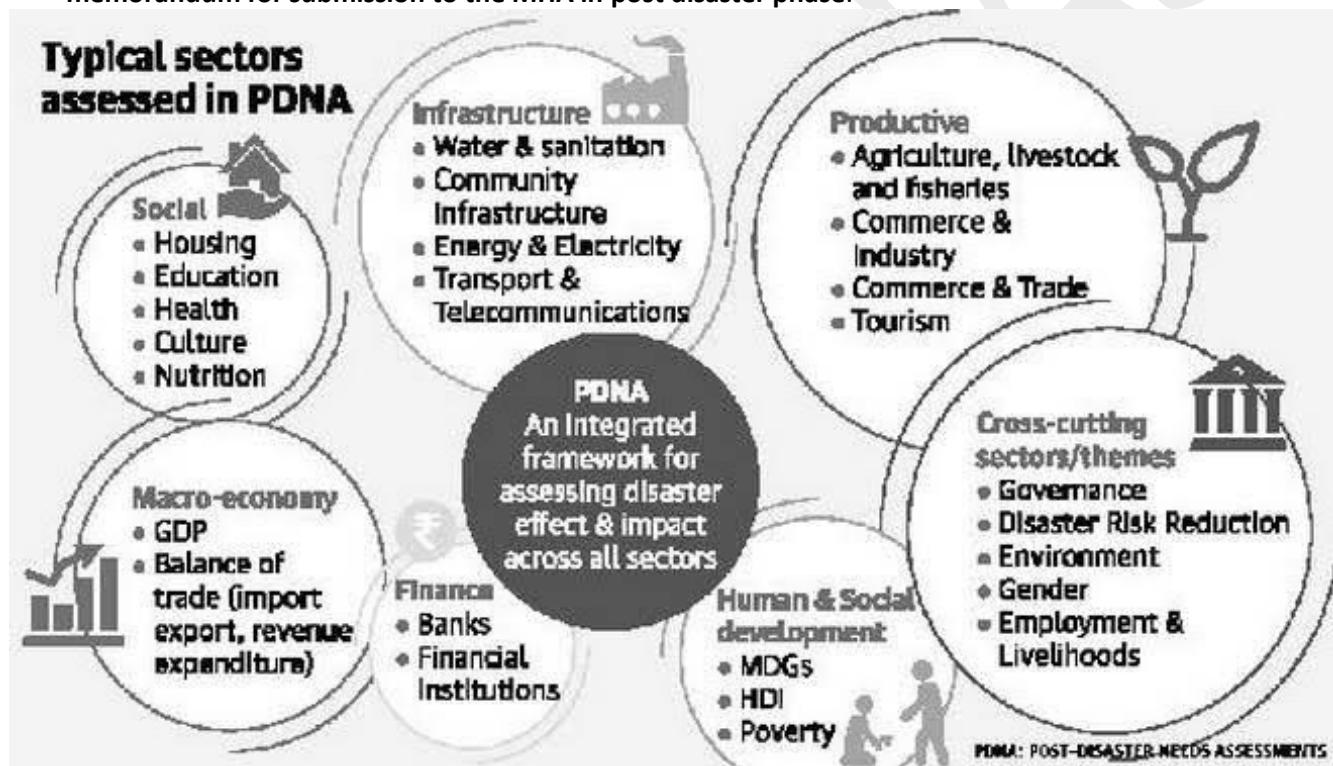
What to study?

- For Prelims: PDNA- Features.
- For Mains: Need for and significance of PDNA in planning.

Context: The National Institute of Disaster Management (NIDM) recently organised a one day National workshop on Post Disaster Needs Assessment (PDNA).

Background:

- NIDM recently undertook the study for developing a scientific tool on Post Disaster Needs Assessment (PDNA), under the National Cyclone Risk Mitigation Project (NCRMP).
- The focus of this workshop is to disseminate the outcome documents of the study to all the relevant stakeholders so that the same may be utilized by them as a reference document while preparing the memorandum for submission to the MHA in post disaster phase.



What are Post Disaster Needs Assessment (PDNA)?

- The PDNA tool was developed by the UN Development Group, the World Bank and the European in
- The aim was to develop and use common assessment and recovery planning approaches in post-crisis settings.
- The main goal is to assess the full extent of a disaster's impact, define the needs for recovery, and, in so doing, serve as the basis for designing a recovery strategy and guide donors' funding.
- **Objective:** A PDNA looks ahead to restoring damaged infrastructure, houses, livelihoods, services, governance and social systems, and includes an emphasis on reducing future disaster risks and building resilience.
- **Significance of PDNA:**
- In the aftermath of disasters, affected countries need to invest significant resources to address recovery needs. These should be guided by a comprehensive assessment that estimates damages and losses, and identifies the needs of the affected population.
- PDNA is the first step towards developing a holistic recovery programme that promotes equity and inclusion.

Sources: pib.

2. CLIMATE VULNERABILITY MAP OF INDIA

What to study?

- For Prelims and mains: Overview, need for and significance of the map.

Context: For preparing communities and people to meet the challenge arising out of climate changes, a pan India **climate vulnerability assessment map** is being developed. Such climate vulnerability atlas has already been developed for 12 states in the Indian Himalayan Region, using a common framework.

Key facts:

- The map is being developed under a joint project of the Department of Science and Technology (DST) under the Union Ministry of Science and Technology and Swiss Agency for Development and Cooperation (SDC).
- This research programme of DST is being implemented as part of the **National Mission for Sustaining the Himalayan Ecosystem (NMSHE)** and **National Mission on Strategic Knowledge for Climate Change (NMSKCC)**.
- The atlas is expected to be ready by the middle of 2020.

Why such move?

- Climate risk is interplay of hazard, exposure and vulnerability. There is a rise in climate-sensitive livelihood of people. While the occurrence of natural hazards such as landslides, droughts and floods is projected to go up, their impact depends on the level of exposure such as presence of people and infrastructure in areas. Hence a common methodology for assessing vulnerability is critical for comparison and for planning adaptation strategies.
- Addressing vulnerability can help reduce risk to climate change. It also helps in identifying what makes a state or district vulnerable to climate change.
- The vulnerability assessments will be useful for officials, decision makers, funding agencies and experts to have a common understanding on vulnerability and enable them to plan for adaptation.

Sources: the Hindu.

Topics: *Security challenges and their management in border areas; linkages of organized crime with terrorism.*

1. UNLAWFUL ACTIVITIES (PREVENTION) ACT

What to study?

- For prelims and mains: UAPA- features, significance, concerns over its misuse and need.

Context: The Supreme Court has asked the Union government to respond to petitions challenging its decision to amend the draconian **Unlawful Activities (Prevention) Act** giving it powers to categorise anyone as a terrorist.

- Petitions say **Act confers govt with 'discretionary, unfettered and unbound powers' to categorise a person as a terrorist.**

Unlawful Activities (Prevention) Amendment Bill, 2019:

- The Bill **amends the Unlawful Activities (Prevention) Act, 1967.**
- Who may commit terrorism:** Under the Act, the central government may designate an organisation as a terrorist organisation if it: (i) commits or participates in acts of terrorism, (ii) prepares for terrorism, (iii) promotes terrorism, or (iv) is otherwise involved in terrorism. The Bill additionally empowers the government to designate individuals as terrorists on the same grounds.
- Approval for seizure of property by NIA:** If the investigation is conducted by an officer of the National Investigation Agency (NIA), the approval of the Director General of NIA would be required for seizure of properties that may be connected with terrorism.
- Investigation by NIA:** Under the Act, investigation of cases may be conducted by officers of the rank of Deputy Superintendent or Assistant Commissioner of Police or above. The Bill additionally empowers the officers of the NIA, of the rank of Inspector or above, to investigate cases.

- **Insertion to schedule of treaties:** The Act defines terrorist acts to include acts committed within the scope of any of the treaties listed in a schedule to the Act. The Schedule lists nine treaties, including the Convention for the Suppression of Terrorist Bombings (1997), and the Convention against Taking of Hostages (1979). The Bill adds another treaty to the list. This is the **International Convention for Suppression of Acts of Nuclear Terrorism (2005).**

Why is it being opposed?

- It empowers officials to **brand any person 'a terrorist'**, without following due process.
- It **does not provide any legal consequence in case an individual is designated a terrorist.**
- The only statutory remedy available to such a person is to make an application before the Central Government for de-notification, which will be considered by a **Review Committee constituted by the Government itself.**
- An official designation as a terrorist will be akin to '**civil death**' for a person, with social boycott, expulsion from job, hounding by media, and perhaps attack from self-proclaimed vigilante groups following.
- The law **could target minorities** or a section of people thereby affecting their cultural rights.
- **Indefinite Imprisonment without Trial:** Even if the person is eventually acquitted of the charges, the delays in conducting judicial proceedings mean the case may only get heard several years after their arrest – failure to get bail means they have to spend the entire time in jail.

Sources: the Hindu.

2. BIOTERRORISM

What to study?

- For Prelims and Mains: What is it? Concerns and ways to address them.

Context: Raksha Mantri Shri Rajnath Singh says **bio-terrorism among new threats facing Armed Forces Medical Services of SCO countries.**

- He called on them to **find effective ways to deal with new threats posed by advancing battle field technologies.**

What is bioterrorism?

- A form of terrorism where there is the **intentional release of biological agents** (bacteria, viruses, or other germs). This is also referred to as **germ warfare**.

Concerns:

- In effect, biological warfare is using non-human life to disrupt — or end — human life. Because living organisms can be unpredictable and incredibly resilient, biological weapons are difficult to control, potentially devastating on a global scale, and prohibited globally under numerous treaties.
- The threat of bioterrorism is increasing as a result of the rise of technical capabilities, the rapid expansion of the global biotechnology industry, and the growth of loosely sophisticated networks of transnational terrorist groups that have expressed interest in bioterrorism.

Impact:

- While a biological agent may injure or kill people, animals, or plants, the goal for the terrorist is to further their social and political goals by making their civilian targets feel as if their government cannot protect them.

Sources: pib.

3. JAMMU AND KASHMIR PUBLIC SAFETY ACT (PSA)

What to study?

- For prelims: Key features of the act.
- For mains: Issues related, why it is called a draconian law, need for reforms.

Why in News? Farooq Abdullah, Former Jammu and Kashmir Chief Minister, has been booked under **the Public Safety Act (PSA).**

What is the J&K PSA?

- The **Jammu and Kashmir Public Safety Act (PSA)** received the assent of the J&K Governor on April 8, 1978.
- The Act was introduced as a **tough law to prevent the smuggling of timber and keep the smugglers “out of circulation”**.
- The law allows the **government to detain any person above the age of 16 without trial for a period of two years**.
- The PSA **allows for administrative detention for up to two years** “in the case of persons acting in any manner prejudicial to the security of the State”, and **for administrative detention up to one year** where “any person is acting in any manner prejudicial to the maintenance of public order”.
- **Detention orders under PSA can be issued by Divisional Commissioners or District Magistrates**.
- **Section 22 of the Act** provides protection for any action taken “in good faith” under the Act: “No suit, prosecution or any other legal proceeding shall lie against any person for anything done or intended to be done in good faith in pursuance of the provisions of this Act.”
- Under **Section 23 of the Act**, the government is empowered to “make such Rules consistent with the provisions of this Act, as may be necessary for carrying out the objects of this Act”.

Why is it often referred to as a “draconian” law?

- Right from the beginning, the law was misused widely, and was repeatedly employed against political opponents by consecutive governments until 1990. After the emergence of militancy, the J&K government frequently invoked the PSA to crack down on separatists.
- In August 2018, the Act was amended to **allow individuals to be detained under the PSA outside the state as well**.
- The detaining authority **need not disclose any facts** about the detention “which it considers to be against the public interest to disclose”.
- The **terms under which a person is detained under PSA are vague** and include a broad range of activities like “acting in any manner prejudicial to the security of the State” or for “acting in any manner prejudicial to the maintenance of public order”.
- The vagueness provided in the act **gives unbridled powers to the authorities**. The detainees, therefore, are effectively debarred from contesting the legality of their detention.
- PSA **does not provide for a judicial review of detention**. To checkmate the J&K High Court orders for release of persons detained under the act the state authorities issue successive detention orders. **This ensures prolonged detention of people**.
- PSC has been used against human rights activists, journalists, separatists and others who are considered as a threat to the law & order. **Right to dissent is stifled by these Acts**.

Sources: The Hindu.

Topics: Role of external state and non-state actors in creating challenges to internal security. Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges.

CENTRAL ADVERSE LIST

What to study?

- For Prelims and mains: The list, composition, need for and significance.

Context: The Centre has removed from the **Central Adverse List** names of few foreign nationals involved in anti-India activities.

What is Central Adverse List?

- It is a list maintained by the **Union Ministry of Home Affairs**.

The list contains:

- **Names of individuals who supported the Khalistan movement in 1980s and 90s but left India to take asylum in foreign countries.**
- **Names of those individuals who are suspected to have links with terrorist outfits or have violated visa norms in their previous visit to India.**

- Names of those persons who have indulged in criminal activities or have been accused of sexual crimes against children in their respective countries.
- The list is not restricted to Punjab or the Khalistan movement.

How is it used?

- Used by all Indian Missions and Consulates to stop the individuals named in it from entering India. This is done by not granting visa to such persons. It is a step taken by the Indian government to maintain internal security.
- Used to keep serious offenders outside India as somebody may commit a crime in his native nation and then apply for an Indian visa to escape prosecution.

Sources: the Hindu.

Topics: Cybersecurity related issues.

1. NATGRID

What to study?

- For Prelims: NATGRID- features.
- For Mains: Significance, need for and criticisms.

Context: The ambitious **National Intelligence Grid (NATGRID)** project wants to link social media accounts to the huge database of records related to immigration entry and exit, banking and telephone details among others.

Who can access the data?

- The database would be accessible to authorised persons from 11 agencies on a case-to-case basis, and only for professional investigations into suspected cases of terrorism.

Criticisms:

- NATGRID is facing opposition on charges of possible violations of privacy and leakage of confidential personal information.
- Its efficacy in preventing terror has also been questioned given that no state agency or police force has access to its database thus reducing chances of immediate, effective action.
- According to few experts, digital databases such as NATGRID can be misused. Over the last two decades, the very digital tools that terrorists use have also become great weapons to fight the ideologies of violence.
- Intelligence agencies have also opposed amid fears that it would impinge on their territory and possibly result in leaks on the leads they were working on to other agencies.

About NATGRID:

- It is an ambitious **counter terrorism programme**.
- It will utilise **technologies** like Big Data and analytics to study and analyse the huge amounts of data from various intelligence and enforcement agencies to help track suspected terrorists and prevent terrorist attacks.
- It will connect, in different phases, data providing organisations and users besides developing a legal structure through which information can be accessed by the law enforcement agencies.
- NATGRID is a post Mumbai 26/11 attack measure.

Why do we need NATGRID?

- The danger from not having a sophisticated tool like the NATGRID is that it forces the police to rely on harsh and coercive means to extract information in a crude and degrading fashion.
- After every terrorist incident, it goes about rounding up suspects—many of who are innocent. If, instead, a pattern search and recognition system were in place, these violations of human rights would be much fewer.
- Natgrid would also help the Intelligence Bureau keep a tab on persons with suspicious backgrounds.
- The police would have access to all his data and any movement by this person would also be tracked with the help of this data base.

Sources: the hindu.

2. GLOBAL INTERNET FORUM TO COUNTER TERRORISM (GIFCT)

What to study?

- For Prelims and mains: Composition, objectives and significance of GIFCT.

Context: Led by **Presidents of New Zealand and France**, the members of GIFCT recently met at the UN General Assembly to discuss the progress on the steps taken to implement **Christchurch Call to Action**.

About GIFCT:

- Formally established in July 2017 as a group of companies, dedicated to disrupting terrorist abuse of members' digital platforms.
- The original Forum was led by a rotating chair drawn from the founding four companies—Facebook, Microsoft, Twitter and YouTube—and managed a program of knowledge-sharing, technical collaboration and shared research.
- GIFCT as an independent organization was formally established in 2017.

GIFCT goals:

- Improve the capacity of a broad range of technology companies, independently and collectively, to prevent and respond to abuse of their digital platforms by terrorists and violent extremists.
- Enable multi-stakeholder engagement around terrorist and violent extremist misuse of the internet and encourage stakeholders to meet key commitments consistent with the GIFCT mission.
- Encourage those dedicated to online civil dialogue and empower efforts to direct positive alternatives to the messages of terrorists and violent extremists.
- Advance broad understanding of terrorist and violent extremist operations and their evolution, including the intersection of online and offline activities.

Christchurch Call to Action:

- Launched during the “Online Extremism Summit” in Paris.
- Launched jointly by India, France, New Zealand, Canada and several other countries.
- The initiative outlines collective and voluntary commitments from governments and online service providers to address the issue of terrorist and violent extremist content online.
- It calls for a free, open and secure internet to promote connectivity, enhance social inclusiveness and foster economic growth.

Background:

- The ‘Christchurch call to action’ initiative has been named after the New Zealand city Christchurch, where over 50 people were killed and over 20 got injured in shootings at two mosques.

Need:

- As internet is not resistant towards the abuse by terrorists and violent extremists, there is an urgent need of collective efforts to secure the internet from such terror groups. Recent Christchurch terror attacks were broadcasted online by terrorists. The broadcasting of such content online has severe impact on victims of such incident, on collective security and on people across the world.
- The Christchurch attack stressed on the urgent call of action by the governments, civil society, online service providers, and social media companies to eliminate terrorist and extremist content online.
- Sources: the Hindu.

GENERAL STUDIES – IV

1. ISSUES IN DEBATE AROUND SETTING AN AGE LIMIT FOR IVF

Context: A 74-year-old woman from Andhra Pradesh was recently recorded as the oldest in the world to give birth to twins through in-vitro fertilisation or IVF.

- However, the medical community has expressed ethical and medical concerns over conception at such an advanced age.

Why this is a concern?

- The average life expectancy of an Indian woman is 70 and of a man 69, and the medical community has expressed concerns over future of children born to such an elderly couple. There are complications that can risk human life.

Concerns associated:

- Pregnancy in old age poses multiple risks — hypertension, diabetes, convulsions, bleeding, and cardiac complications to name a few.
- The womb of an older woman has to be prepared by injecting hormones for the foetus to grow for nine months. Also, a woman of that age cannot breastfeed.

How is it regulated?

- Globally, an estimated 15% of couples are infertile.
- The **Assisted Reproductive Technologies (Regulation) Bill, 2010**, states that in the Indian social context, children are “old-age insurance”.
- The Bill proposes the upper age limit at 45 for women and 50 for men to undergo the IVF procedure.
- As of now, several centres rely on ICMR's 2017 guidelines that recommend the same age limits.
- Even for adoption, the total age of the couple must not exceed 110 years.
- With increasing life expectancy, doctors are in talks with the government to increase the IVF age limit to 50-52 years for women.
- Until then, several experts self-regulate, some counsel senior citizens to drop the idea, and others refuse them IVF treatment.

Sources: the Hindu.

2. VOLUNTARY CODE OF ETHICS

Context: Internet & Mobile Association of India (IAMAI) on behalf of its members has agreed to observe the “Voluntary Code of Ethics” during all future elections. IAMAI has assured the Election Commission that the platforms will cooperate in ensuring the conduct of free and fair elections.

Background:

- As a result of Commission's vigorous persuasion, all the major social media platforms and IAMAI came together and mutually devised this “Voluntary Code of Ethics” for the General Elections 2019. This came into immediate effect from the day it was presented to the Commission on 20th March, 2019. During the election period, social media platforms took action on 909 violative cases, reported by the ECI.

The highlighted features of “Voluntary Code of Ethics” are as follows:

- Social Media platforms will voluntarily undertake information, education and communication campaigns to build awareness including electoral laws and other related instructions.
- Social Media platforms have created a high priority dedicated grievance redressal channel for taking expeditious action on the cases reported by the ECI.
- Social Media Platforms and ECI have developed a notification mechanism by which ECI can notify the relevant platforms of potential violations of Section 126 of the R.P. Act, 1951 and other electoral laws.
- Platforms will ensure that all political advertisements on their platforms are pre-certified from the Media Certification and Monitoring Committees as per the directions of Hon'ble Supreme Court.

- Participating platforms are committed to facilitate transparency in paid political advertisements, including utilising their pre-existing labels/disclosure technology for such advertisements.

Sources: the Hindu.

3. THE 'RIGHT TO BE FORGOTTEN' ON THE INTERNET

- Context:** Recently, the European Union's highest court ruled that an online privacy rule known as the 'right to be forgotten' under European law would not apply beyond the borders of EU member states.

Background:

- ECJ ruled in favour of the search engine giant Google, which was contesting a French regulatory authority's order to have web addresses removed from its global database.

Significance of the ruling:

- The ruling comes as an important victory for Google, and lays down that the online privacy law cannot be used to regulate the internet in countries such as India, which are outside the European Union.

What is the 'right to be forgotten' under European law?

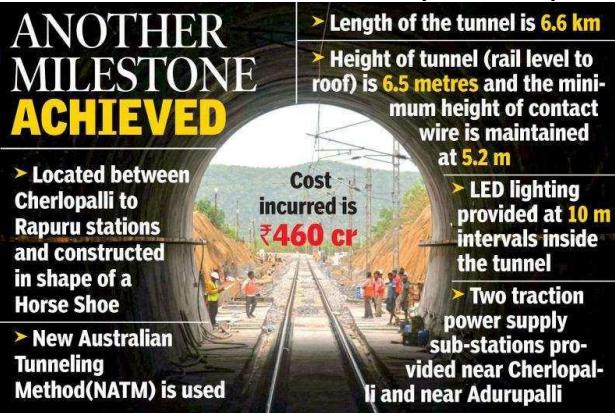
- It is **provided by the EU's General Data Protection Regulation (GDPR)**, a law passed by the 28-member bloc in 2018.
- The right **empowers individuals to ask organisations to delete their personal data**.
- "**Personal data**" means "any information relating to an identified or identifiable natural person ("data subject")", and "controller" means "the natural or legal person, public authority, agency or any other body which determines the purposes and means of the processing of personal data".

Sources: Indian Express.

FACTS for PRELIMS

1. COUNTRY'S LONGEST ELECTRIFIED RAIL TUNNEL

- Context:** India's longest electrified rail tunnel was recently inaugurated in **Andhra Pradesh**.
- The 6.7 km long tunnel was constructed at a cost of Rs 437 crore and connects Cherlopalli and Rapuru.



2. POSHAN MAAH (NATIONAL NUTRITION MONTH)

- The Government is celebrating the month of **September** as the **National Nutrition Month** under the Poshan Abhiyan.
- The **primary objective** is to take the messages of POSHAN to the grass root level.
- The programme- **an initiative of WCD Ministry and NITI Aayog** is supported by 18 line Ministries/Departments/Government Organizations.
- It seeks to **synergise all efforts by leveraging technology and intends to take nutrition awareness to the level of Jan Andolan** or People's Movement.
- The programme focuses on **8 themes** – Antenatal Care, Optimal Breastfeeding (Early & Exclusive), Complementary Feeding, Anemia, Growth Monitoring, Girls-education, diet, right age of Marriage, Hygiene & Sanitation, Food Fortification.

3. PROJECT REPLAN (REDUCING PLASTIC IN NATURE)

- Launched by Khadi and Village Industries Commission (KVIC).
- It aims to make carry bags by mixing processed and treated plastic waste with cotton fibre rags in the ratio 20:80.
- The made paper is found to have good strength and durability.
- It can be used to make paper bags, fine tissues and other paper-based items.

4. NCPHR

- The National Commission for Protection of Child Rights (NCPHR) was set up in March 2007 under

the **Commission for Protection of Child Rights Act, 2005**.

- It works under the administrative control of the **Ministry of Women & Child Development**.
- Definition:** The Child is defined as a person in the 0 to 18 years age group.
- The Commission's Mandate** is to ensure that all Laws, Policies, Programmes, and Administrative Mechanisms are in consonance with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.

5. APEDA

Context: The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act 1985.

- The Authority replaced the Processed Food Export Promotion Council (PFEPC).
- Chairman – Appointed by the Central Government.

APEDA is mandated with the responsibility of export promotion and development of the following scheduled products:

- Fruits, Vegetables and their Products.
- Meat and Meat Products.
- Poultry and Poultry Products.
- Dairy Products.
- Confectionery, Biscuits and Bakery Products.
- Honey, Jaggery and Sugar Products.
- Cocoa and its products, chocolates of all kinds.
- Alcoholic and Non-Alcoholic Beverages.
- Cereal and Cereal Products.
- Groundnuts, Peanuts and Walnuts.
- Pickles, Papads and Chutneys.
- Guar Gum.
- Floriculture and Floriculture Products.
- Herbal and Medicinal Plants.

6. CENTRAL ADVISORY BOARD OF EDUCATION (CABE)

- CABE is the highest advisory body to advise the Central and State Governments in the field of education.**
- Background:** First established in 1920 and dissolved in 1923 as a measure of economy. It was revived in 1935. It has been reconstituted by the Government in July 2004.
- Functions:** CABE has a particularly important role to play at the present juncture in view of the significant socio-economic and socio-cultural developments taking place in the country and for the review of the National Policy on Education which is also due.

- Composition:** It consists of nominated members representing various interests in addition to elected members from the Lok Sabha and the Rajya Sabha, and the representatives of the Government of India, State Governments and UT Administrations.

7. PROJECT BAL BASERA

- Bal Basera or a Crèche** is a project for the welfare of Children of Construction Workers was deployed at AIIMS Rishikesh site. The project is supported by Central Public Works Department (CPWD).
- Bal Basera** shall accommodate about 35 Children and shall be run by CPWD Officers' Wives Association (OWA).

8. INDIA'S SECOND RIVERINE MULTI MODAL TERMINAL BUILT AT SAHIBGANJ IN JHARKHAND

- This is being constructed on National Waterway-1 (River Ganga) under Jal Marg Vikas Project (JMVP) aided by World Bank.
- The First MultiModal Terminal has been constructed at Varanasi over River Ganga.
- Ganga-Bhagirathi-Hooghly river system from Allahabad to Haldia was declared as National Waterway No.1. The NW-1 passes through Uttar Pradesh, Bihar, Jharkhand and West Bengal and serves major cities and their industrial hinterlands.

9. CURRICULUM FOR LIFE SKILLS (JEEVAN KAUSHAL)

- Designed by University Grants Commission (UGC).
- Objectives:** The curriculum is designed to impart and strengthen the knowledge, skills and dispositions believed to be the best requisites of the current Industry and thereby empower the talent inherent in each learner.
- Life skills (JeevanKaushal) curriculum cover the set of human talents acquired by an individual via classroom learning or life experience that can help them to deal with problems encountered in day to day life. This includes the core skills each individual must possess internally as well as externally for the betterment of self and the society as a whole. Adoption of life skills is the key to success and quality in life.

10. CENTRAL EQUIPMENT IDENTITY REGISTER (CEIR) SYSTEM

- This is a project undertaken by the DoT for addressing security, theft and other concerns including reprogramming of mobile handsets.

Objectives of the project:

- Blocking of lost/stolen mobile phones across mobile networks thus discouraging theft of mobile phones.
- Facilitate in tracing of such reported lost/stolen mobile phones.

- Prevention of mobile devices with duplicate and fake IMEIs in the network.
- Curtail the use of counterfeit mobile devices.
- Reduced health risks to the users with the control of use of counterfeit mobile phones.
- Improved QoS and reduced call drops with reduction in use of counterfeit mobile devices.

11. 'JALDOOT' EXHIBITION

- It is a travelling exhibition arranged by Regional Outreach Bureau, Pune under the Ministry of Information and Broadcasting. It is a Travelling Exhibition on Jalshakti Abhiyan.
- Jal Shakti Abhiyan is a collaborative effort of various Ministries of the Government of India and State Governments, being coordinated by the Department of Drinking Water and Sanitation.
- It is a time-bound, mission-mode campaign that would focus on 1,592 "water-stressed" blocks in 257 districts.
- The campaign will run through citizen participation during the monsoon season, from 1st July, 2019 to 15th September, 2019.

12. NATIONAL INSTITUTE OF OCEAN TECHNOLOGY (NIOT)

- Established in November 1993 as an autonomous society under the Ministry of Earth Sciences, Government of India.
- Major aim of starting NIOT is to develop reliable indigenous technologies to solve the various engineering problems associated with harvesting of non-living and living resources in the Indian Exclusive Economic Zone (EEZ), which is about two-thirds of the land area of India.

13. WASTE MANAGEMENT ACCELERATOR FOR ASPIRING WOMEN ENTREPRENEURS (WAWE SUMMIT 2019)

- It will be held in November-December 2019.
- Jointly organized by All India Council for Technical Education (AICTE) and Institute of Waste Management (IIWM) at Jaipur.
- It will be the largest gathering of young women students to promote entrepreneurship in waste management and providing alternatives to single use plastic carry bags.
- Theme:** Make your own bag – empowering women to take up income generation activity and entrepreneurship in waste management through making a business out of this record creating concept.

14. YEAR OF ARTIFICIAL INTELLIGENCE

- The state government of Telangana has decided to declare 2020 as Year of Artificial Intelligence.
- Throughout the year 2020, the state government will be running multiple programs, meetings and

activities such as hackathons, master classes and other activities.

15. EMERGENCY RESPONSE SUPPORT SYSTEM

- ERSS is one of the key projects of the Union Ministry of Home Affairs under Nirbhaya Fund.
- It has been designed to play a pivotal role in mitigation or preventing escalation of crime, especially against women and children.
- ERSS provides a single emergency number (112), computer aided dispatch of field resources to the location of distress.
- Citizens can send their emergency information through call, sms, email and through the 112 India mobile app.

16. MOCHI SWABHIMAAN INITIATIVE

- It is a nationwide activity in which the Leather Sector Skill Council (LSSC) will extend support to the cobbler community who provide leather-based services, with CSR funds and bring respect to their skills by giving them a better working environment in the form of kiosks/umbrellas.

About the Leather Sector Skill Council (LSSC):

- It is a non-profit organisation dedicated to meeting the demand for skilled workforce in the leather industry in India.
- The LSSC was set up in 2012 as one of the key sector skill councils approved by National Skill Development Corporation (NSDC).

17. CHC FARM MACHINERY APP

- It is a multilingual app through which farmers can select and order the required machinery at the rates feasible for them.
- These machinery can be selected from the Custom Hiring Centers located in the radius of 50 Kms.

Benefits:

- It is especially helpful for small and marginal farmers who will have easy access to high value and technical agricultural equipment facilitating optimum use of all types of inputs using these farming machines.
- This will help farmers increase their income.
- This will also help increase the rate of mechanisation of farm holdings.

18. TATPAR APP

- Delhi Police has launched Tatpar app to provide safety and a convenient 24x7 online mode to its citizens.
- The app brings together all the websites and mobile applications of the Delhi Police and over 50 services.

19. SURVEY OF INDIA

- Survey of India (SoI) will for the first time rely on drones to map the country.

About SoI:

- It is the National Survey and Mapping Organization of the country under the Department of Science & Technology.
- It is the oldest scientific department of the govt. of India set up in 1767.

20. SHODH SHUDDH

- It is a Plagiarism Detention Software (PDS) launched by the union Ministry of HRD.
- This service is being implemented by Information and Library Network (INFLIBNET), an Inter University Centre (IUC) of UGC.
- **Significance:** It will significantly help to improve the quality of research outcome by ensuring the originality of ideas and publication of the research scholars.

21. SPECIAL EXPENDITURE OBSERVERS

- **Context:** ECI appoints former IRS officers as special expenditure observers for Maharashtra polls.

Key facts:

- They are appointed by ECI exercising the powers conferred on it under Article 324 of the Constitution and Section 20B of The Representation of the People Act 1951.
- The special observers will be supervising and monitoring the work being done by the electoral machinery.
- They will also ensure that stringent and effective enforcement action is undertaken based on intelligence inputs and complaints received through C-VIGIL, Voter Helpline 1950 against all persons or entities trying to induce voters by distributing cash, liquor and freebies etc in order to vitiate the poll process.

22. COLOUR-CODED ALERTS BY IMD

- Alerts by the IMD are colour-coded from Green to Red:
- 'Green' stands for 'No warning': no action needs to be taken by the authorities, and the forecast is of light to moderate rain.
- 'Yellow' alert signifies "Watch", and authorities are advised to "Be updated" on the situation.
- 'Orange' warning stands for "Alert", and authorities are expected to "Be prepared". The forecast during an Orange warning is of heavy to very heavy rainfall.
- 'Red' alert stands for "Warning", and asks authorities to "Take action".

23. TERRACOTTA GRINDER

- The Khadi and Village Industries Commission (KVIC) has launched the first-ever 'Terracotta Grinder' at Varanasi.
- It will grind the wasted and broken pottery items for re-using in pottery-making.

- It will reduce the cost of production, and will also help to solve the problem of shortage of clays for pottery making.

24. CHAMPIONS BOAT LEAGUE (CBL)

- The Champions Boat League (CBL) has been conceived to transform the state's legendary and historically-significant '**vallamkali**' (snake boat races) into a world-class sporting event.
- The **snake boat, or 'chundam vallam'** is essentially a long canoe that can seat up to 100 rowers and can have a length between 100 and 138 feet in length.
- Snake boat races owe their origins as far back as the 13th century when princely kingdoms, located in present-day **Alappuzha** along the backwaters, would have raging battles in the water. These battles used to be fought on the snake boats especially constructed for the purpose.

25. HINDI DIWAS 2019

- Context:** National Hindi Divas or Hindi Day is observed every year on **September 14**.
- Objective:** The day is a celebration of the Hindi language and its cultural heritage and values among the people of the country and abroad.

Why do we celebrate National Hindi Diwas?

- The Constituent assembly of India adopted Hindi as the official language of the country on September 14, 1949 under Article 343.
- Hindi is the fourth language of the world.

26. BATHUKAMMA

Context: Telangana government recently celebrated the eagerly awaited '**Festival of Flowers**' (**Bathukamma**) for which the State is known.

- The festival was traditionally celebrated by women across the state.
- Every year this festival is celebrated as per Telugu version of Hindu calendar in the **Bhadrapada Amavasya**, also known as Mahalaya Amavasya, usually in September–October of Gregorian calendar.
- In Telugu, 'Bathukamma' means 'Mother Goddess come Alive'.
- It is the state festival of Telangana.

27. GALO COMMUNITY

- At about 1.5 lakh people, the Galos are one of the 26 major communities of Arunachal Pradesh.
- The Galos belong to the **Tani group** inhabiting Assam and Arunachal Pradesh, besides Tibet.
- They trace their common origin to a primeval ancestor, **Abotani**.
- They have a system of prefixing the second syllable of a father's name to that of a son, who passes on the suffix in his name to his son. Hence they can trace the names of ancestors from the first syllable or prefix of our names.

- Mopin** is the main festival in Galos which is celebrated for the prosperity of the villages
- The Galos perform **Popir dance**.

28. PULIKALI

- Also known as **Tiger Dance**, it is a folk art of Kerala, performed on the fourth day of Onam festival.
- Artists wear a tiger mask, paint their bodies like tigers and dance to the rhythm of traditional percussion instruments such as thakil, udukku and chenda.

29. LADAKHI SHONDOL DANCE

- Context:** This dance has entered into the Guinness Book of World Records.
- It is known as the '**royal dance of Ladakh**'.
- It is famous dance which was earlier used to be performed by artists for King of Ladakh on special occasion.

30. NUAKHAI: HARVESTING FESTIVAL OF ODISHA

- The **festival of nuakhai** is a festival to celebrate newly harvested food by the farmers.
- Background:** The festival traces its origin to the Vedic period where the sages or Rishis used to talk about **Panchayajna**. One among them was **Pralambana yajna** which means the cutting of new crops and offering them to mother goddess as followed in **Nuakhai festival**.
- It is also called **Nuakhai Parab** or **Nuakahi Bhetghat**.

31. VAIDYARATNAM P. S. WARRIER

- Context:** Vice President Shri Venkaiah Naidu inaugurated **150th birth anniversary celebrations of Vaidyaratnam P.S. Varier**.

About Vaidyaratnam:

- Vaidyaratnam P. S. Varier (1869–1944) was an Ayurvedic physician from Kerala, India.
- He is well-regarded as the **founder of Kottakkal Arya Vaidyasala**, a major Ayurvedic treatment centre in Kerala.
- He also wrote text books for students of Ayurveda. One of them, **Ashtangasariram**, won a certificate in 1932 from the National Organisation of Physicians.
- He founded a drama troupe which was developed to be the famous **Kathakali troupe, P.S.V. Natyasangham**.
- In 1933, in recognition of his services to humanity, P. S. Varier was conferred the title of '**Vaidyaratna**' by His Excellency the Viceroy and Governor General of India.

32. TIME BANK

- Context:** Madhya Pradesh government's Happiness Department plans to set up a Time Bank.

- **Objective:** It would lend currency to an hour, which could be exchanged to learn a new skill without the need for any paper money.
- **What is a time bank?** It is a reciprocity-based work trading system in which hours are the currency. With time banking, a person with one skill set can bank and trade hours of work for equal hours of work in another skill set instead of paying or being paid for services.
- **How it operates?** Whenever a bank member needs a service or wants to acquire a skill, say gardening or playing a guitar, she could exchange a credit, worth an hour, with another member knowing the skill.
- **History:** First Time Bank was set up in Japan in 1973. Today, there are more than 500 such communities across 32 countries.

33. IMPORTED INFLATION

- **What is it?** When the general price level rises in a country because of the rise in prices of imported commodities, inflation is termed as imported.
- **Why in news?** The weakening of the domestic currency in the past two months i.e. July and August 2019 may lead to imported inflation in the country.
- **Two key contributors to India's imports are:** Crude Oil and Gold. Rise in prices of these two products lead to rise in the import bill of the country.

34. ELECTRONIC CERTIFICATES OF ORIGIN (COO)

- **Context:** Recently the Ministry of Commerce & Industry launched a common digital platform for the issuance of electronic Certificates of Origin (CoO).

What is it?

- A Certificate of Origin is an instrument which establishes evidence on the origin of goods imported into any country. These certificates are essential for exporters to prove where their goods come from and therefore stake their claim to whatever benefits goods of Indian origin may be eligible for in the country of exports.

35. ECONOMIC ADVISORY COUNCIL TO THE PRIME MINISTER (EAC-PM)

- EAC-PM is an independent body constituted to give advice on economic and related issues to the Government of India, specifically to the Prime Minister.
- The terms of reference of EAC-PM include analyzing any issue, economic or otherwise, referred to it by the Prime Minister and advising him thereon, addressing issues of macroeconomic importance and presenting views thereon to the Prime Minister.
- These could be either suo-motu or on reference from the Prime Minister or anyone else. It also includes attending to any other task as may be desired by the Prime Minister from time to time.

36. DIGITAL PAYMENT ABHIYAN

- Nasscom's **Data Security Council of India (DSCI)** has collaborated with **Union Ministry of Electronics and IT (MeitY)** and **Google India** to launch nationwide awareness campaign '**Digital Payment Abhiyan**'.
- It aims at increasing awareness about cashless payment, educate end-users on the benefits of making digital payments, online financial security and urge them to adopt security and safety best practices.
- It is pan-India campaign crafted in seven languages — Hindi, English, Tamil, Telugu, Kannada, Bengali and Marathi.
- It will engage with users and make them aware of the dos and don'ts for different payment channels including UPI, wallets, cards as well as netbanking and mobile banking.

37. TEASER LOAN

- Teaser loan is an unofficial term used for **loans that offer low, fixed interest rates in the initial few years, but switch to floating rates thereafter**.
- **Why in News?** RBI is not likely to allow the return of teaser home loans, following the introduction of the external benchmark-linked loan pricing.

38. LEADERSHIP GROUP FOR INDUSTRY TRANSITION

- **Context:** A '**Leadership Group for Industry Transition**' was announced at the **Global Climate Action Summit** to help guide the world's heaviest greenhouse gas emitting industries towards a **low-carbon economy**.
- This new Leadership Group for Industry Transition is a **global public-private effort** to ensure heavy industries and mobility companies can find a workable pathway to deliver on the Paris Agreement.
- **Aim:** To drive transformation in hard-to-decarbonize and energy-intensive sectors.
- **India and Sweden** will lead the Group.
- Some private organisations are also a part of this.
- This initiative will also be supported by the World Economic Forum, the Energy Transitions Commission, Mission Innovation, Stockholm Environment Institute, and the European Climate Foundation among many others.

Countries that are part of the Group are:

1. India
2. Sweden
3. Argentina
4. Finland
5. France
6. Germany
7. Ireland
8. Luxembourg
9. The Netherlands
10. South Korea
11. The United Kingdom

39. INDIA'S FIRST EVER HELICOPTER SUMMIT

- **What?** India's **first ever helicopter summit** was held recently in Dehradun, Uttarakhand.
- **Organised by?** Civil Aviation Ministry, Uttarakhand government and Federation of Indian Chambers of Commerce and Industries (FICCI).
- **Theme:** expanding connectivity through helicopters.

The broad objectives of the summits are as follows:

- To discuss the scope to enhance air connectivity in remote areas and hilly terrain by helicopter.
- To encourage Helicopter-based emergency medical services (HEMS) in India.
- To give a boost to tourism in the Himalayan states by providing uninterrupted helicopter services to the tourist hotspots.
- To provide an interactive platform to the Private Players to identify business potential in crucial areas.

40. AH-64 APACHE COMBAT HELICOPTERS

- **Boeing AH-64 Apache combat helicopters** inducted into IAF.
- These are **US-made helicopters**.
- It is **one of the world's most advanced attack helicopters** with multi-role combat capabilities.
- The Apache's capabilities range from **greater thrust, lift and joint digital operability to cognitive decision aiding and improved survivability**.

Apache attack helicopters

- The Indian Air Force (IAF) has formally inducted eight AH-64E Apache attack helicopters into service at the Pathankot Air Force Station.
- Apache attack helicopters are being purchased to replace the Mi-35 fleet.
- India is **16th nation** to select the Apache and the AH-64E is the most advanced variant.
- Apache is the most advanced multi-role heavy attack helicopter in the world.
- Alongside the capability to shoot fire and forget anti-tank guided missiles, air-to-air missiles, rockets and other ammunitions, it also has **modern Electronic Warfare (EW) capabilities** to provide versatility to helicopters in a network-centric aerial warfare.

41. MPATGM MISSILE

- **Man Portable Anti-Tank Guided Missile** is an Indian third-generation fire-and-forget anti-tank guided missile.
- Developed by **DRDO**.
- Incorporated with state-of-the-art **Infrared Imaging Seeker along with advanced avionics**.

List of India's Anti Tank guided missile:

- DRDO Anti Tank Missile.
- Amogha missile.
- Nag missile.
- Man-Portable Anti-tank Guided Missile (MPATGM).

42. RUSTOM- 2

- Rustom 2 **drone** is a medium-altitude, long-endurance **unmanned aerial vehicle** developed by DRDO.
- The objective of this drone is to carry out **surveillance** for the armed forces with an endurance of 24 hours.
- The drone was developed for use by all three services of the Indian armed forces, primarily for intelligence, surveillance and reconnaissance (ISR) operations.
- The medium-altitude prototype can fly at over 22,000 ft and is a long-endurance (MALE) UAV that has an approximate flight time of 20 hours.
- It can fly at around 280 km/h and carry a variety of payloads like Medium Range Electro Optic (MREO), Long Range Electro Optic (LREO), Synthetic Aperture Radar (SAR), Electronic Intelligence (ELINT).

43. ASTRA MISSILE

- It is the indigenously developed **Beyond Visual Range (BVR) air-to-air**
- It is an all-weather, state-of-the-art missile developed by DRDO and can engage and destroy enemy aircraft at supersonic speed (1.2 Mach to 1.4 Mach) in head-on (up to 80 km) and tail-chase (up to 20 km) modes.
- The 3.8 metre tall Astra is a radar homing missile and the smallest of the DRDO-developed missiles and can be launched from different altitudes.
- It can reach up to 110 km when fired from an altitude of 15 km, 44 km when launched from an altitude of eight km and 21 km when fired from sea level.

44. KARGIL TO KOHIMA (K2K) ULTRA MARATHON – “GLORY RUN”

- **Context:** Kargil to Kohima (K2K) Ultra Marathon – “Glory Run” was recently flagged off from KARGIL.
- **The aim of the expedition is to** promote awareness for Pedestrian Safety and recently launched Fit India Movement and also to pay tribute to the brave hearts who have made the supreme sacrifice for our motherland.

What is important?

- **Some of the passes in Ladakh region that the team will pass through are** Namiki-La (12198 ft), Fout-La (13510 ft), Tanglang-La (17480 ft), Lachung-La (16613 ft), Baralacha-La (16040 ft) and Rohtang (13129 ft).
- **States covered-** Ladakh, HP, Punjab, Uttarakhand, Uttar Pradesh, Bihar, West-Bengal, Assam and Nagaland.

45. HIM VIJAY EXERCISE

- **Context:** Indian Armed Forces are planning to deploy their latest American weapons systems including M777 ultra-light howitzers and Chinook heavy-lift helicopters in the war games to be carried

- out in Arunachal Pradesh, close to borders with China.
- Codenamed **HimVijay**, this exercise planned by India in the **northeast will mainly test the war fighting abilities of the newly-raised 17 Mountain Strike Corps in Arunachal Pradesh**. The exercise will also involve the Indian Air Force (IAF) which would provide the aerial elements for the real war-type drills.

46. EXERCISE YUDH ABHYAS 2019

- Context:** As part of the ongoing Indo-US defence cooperation, a joint military training, Exercise **Yudh Abhyas – 2019** is being conducted at Joint Base Lewis Mc Chord, Washington, USA.

47. MAITREE-2019

- It is **Indo-Thailand Joint Military Exercise**.
- It is an annual training event which is being **conducted alternatively in Thailand and India since 2006**.
- 2019 edition is being **held in Meghalaya**.
- Aim:** to share experience gained during various counter terrorism operations in their respective countries.

48. KAZIND-2019

- It is a joint military exercise between India and Kazakhstan.
- The latest edition is scheduled to be held in **Pithoragarh district, Uttarkhand** from 3-15 October 2019.
- Focus:** counter terrorism operation.
- Conducted alternatively in Kazakhstan and India every year.

49. VARAHA

- It is an **Indian Coast Guard Ship** commissioned recently.
- It will **enhance the surveillance and patrolling capabilities of Indian Coast Guard and reinforce their role as ‘Sentinels of our Seas’**.
- It is the **fourth in series of seven 98-m Offshore Patrol Vessels (OPV)** of Indian Coast Guard (ICG).
- It has been designed and built indigenously by **Larsen & Toubro (L&T)** at its Katupalli ship building yard in North Chennai.

50. INS VIKRAMADITYA

- It is a modified **Kiev-class aircraft carrier**.
- In service since 2013.
- Originally built as **Baku** and commissioned in 1987, the carrier served with the Soviet Navy and later with the Russian Navy (as **Admiral Gorshkov**) before being decommissioned in 1996.

51. INS NILGIRI

Context: Navy's first new stealth frigate, INS 'Nilgiri'.

- It is the **first ship of Project17A**.

- Project 17A frigates** is a design derivative of the Shivalik class stealth frigates with much more advanced stealth features and indigenous weapons and sensors.
- These frigates are being built using integrated construction methodology.
- The P17A frigates incorporate new design concepts for improved survivability, sea keeping, stealth and ship manoeuvrability.

52. SUBMARINE KHANDERI

- Context:** Mazagon Dock Shipbuilders Limited delivers second Scorpene submarine "**KHANDERI**" to Indian Navy.

Key facts:

- Mazagon Dock Limited (MDL)**, Mumbai, is manufacturing six Scorpene submarines under technology transfer from Naval Group of France under a 2005 contract worth \$3.75 bn. The entire project is expected to be completed by 2020.
- The submarine '**KHANDERI**' is **named after the wide snouted Saw fish**, a deadly sea predator of the great Indian Ocean.
- The first Submarine Khanderi was **commissioned into the Indian Navy on 06th December 1968** and decommissioned on 18th October 1989 after more than 20 years of yeoman service to the nation.
- Names of upcoming submarines:** Karanj, Vela, Vagir and Vagsheer.

53. 'RUDRASHILA'

- It is the **white water Rafting Expedition** being undertaken by **Kalidhar Battalion** under the aegis of Battle Axe Division.
- It has been organised to commemorate the **75th Raising day of the Kalidhar Battalion**.
- 'Rudrashila' takes its name from the famed **Rudraprayag tributary** of the Ganges River in the Mountains of Uttarakhand.

54. JOINT NAVAL ANNUAL QUALITY CONCLAVE (JNAQC)

Context: Joint Naval Annual Quality Conclave (JNAQC) to be held in Visakhapatnam.

- Theme** 'Transformation of QA Paradigm: Opportunities and Challenges'.
- Hosted** by the Naval Quality Assurance Establishments under the aegis of Director General Quality Assurance (DGQA), Ministry of Defence.
- Conclave provides** a vibrant environment for stimulating discussions on all aspects pertaining to Transformation of QA Paradigm and will benefit all stakeholders by enabling cross-fertilisation of ideas and best practices from diverse fields.

55. INDO-THAI CORPAT

- 28th edition of **India-Thailand Coordinated Patrol (Indo-Thai CORPAT)** between the Indian Navy (IN) and the Royal Thai Navy (RTN) is being held.

- The Objectives of the Indo-Thai CORPAT are to ensure effective implementation of United Nations Conventions on Laws of the Sea (UNCLOS) which specify regulations regarding protection and conservation of natural resources, conservation of marine environment, prevention and suppression of illegal, unregulated fishing activity/ drug trafficking/ piracy, exchange of information in prevention of smuggling, illegal immigration and conduct of Search and Rescue operations at sea.

56. SAMUDRA LAKSAMANA

- The Indian Navy and Malaysian Navy had recently participated in the bilateral exercise 'Samudra Laksmana'.

57. SITMEX-19

- Context:** Sea Phase of maiden SITMEX-19 (Singapore India Thailand Maritime Exercise), between Indian Navy, Republic of Singapore Navy (RSN) and Royal Thai Navy (RTN) recently commenced in the Andaman Sea.

58. MALABAR EXERCISE 2019

- 23rd edition of Malabar Exercise, the trilateral maritime exercise between navies of India, Japan and the US recently began off the coast of Japan.
- Malabar 2019 exercise seeks to further strengthen India-Japan-US naval cooperation and enhance interoperability, based on shared values and principles.
- The exercise involves complex maritime operations in surface, sub-surface and air domains.

59. ASEAN-US MARITIME EXERCISE (AUMX)

- The first ASEAN-US Maritime Exercise (AUMX) between regional bloc- Association of Southeast Asian Nations (ASEAN) and United States is being held at the Sattahip Naval Base in Thailand.

60. CENTER- 2019 INTERNATIONAL COMMAND EXERCISE

- Russia is holding this annual exercise. Military Forces from India, China, Pakistan, Kazakhstan, Uzbekistan and Kyrgyzstan will join Russia's Central Joint Strategic Command (JSC) for military exercises.

The main objectives of the exercise are to:

- Demonstrate the readiness of the Armed Forces of the Russian Federation and the states of the Central Asia region to protect national interests.
- Increase compatibility and level of interaction in solving joint tasks to preserve peace, protect interests and ensure security in the region.
- Train troops to conduct military operations in modern conditions and improve the interoperability of the military command and control units of the armed forces of Russia and the allied States.

61. WHAT IS AN INTERPOL RED NOTICE, WHAT DOES IT DO?

- Interpol describes an RN as "a request to law enforcement worldwide to locate and provisionally arrest a person pending extradition, surrender, or similar legal action".
- RNs contain information that helps identify wanted persons, such as their names, dates of birth, nationality, and physical attributes such as the colour of their hair and eyes, as well as pictures and biometric data such as fingerprints, if they are available. RNs also mention the crime(s) they are wanted for.
- An RN is published by Interpol at the request of a member country.

62. GREAT INDIAN BUSTARDS (GIB)

- Why in News?** Prepare plan for protection of the Great Indian Bustard: NGT.

Key facts:

- IUCN status:** critically endangered.
- Found** in Gujarat, Maharashtra, Karnataka and Andhra Pradesh.
- Listed in Schedule I of the Indian Wildlife (Protection)Act, 1972 and in the CMS Convention and in Appendix I of CITES.
- Identified as one of the species for the recovery programme under the Integrated Development of Wildlife Habitats of the Ministry of Environment and Forests.
- Project Great Indian Bustard** — state of Rajasthan — identifying and fencing off bustard breeding grounds in existing protected areas as well as provide secure breeding enclosures in areas outside protected areas.
- Protected areas:** Desert National Park Sanctuary — Rajasthan, Rollapadu Wildlife Sanctuary — Andhra Pradesh and Karera Wildlife Sanctuary— Madhya Pradesh.

63. 3 ANIMAL SPECIES IN INDIA EXTINCT DUE TO DESERTIFICATION

- Context:** Three species of animals — the Indian Cheetah, pink-headed duck, and the Great Indian Bustard — have become extinct.
- Why?** Due to desertification in India. Desertification is caused due to insecticides, pesticides, conversion to agricultural land, industries and chemicals, indiscriminate development.

64. SNOW LEOPARD

- Context:** Conservation of snow leopards and preservation of people's cultural values can prevent land degradation of the Himalayan ecosystem, said experts at the ongoing 14th Conference of Parties of the United Nations Convention to Combat Desertification (UNCCD).

- **How?** The snow leopard is the apex predator in the region. Saving it will mean that we will need to save the prey base of herbivores too and to save the prey base will mean preserving the grassland that they feed on. This will automatically lead to the prevention of land degradation.

Key facts:

- Listed as **Vulnerable** on the IUCN Red List of Threatened Species.
- Inhabit **alpine and subalpine zones** at elevations from 3,000 to 4,500 m (9,800 to 14,800 ft).
- **State animal of Himachal Pradesh** and the **National Heritage Animal of Pakistan**.
- **Habitat extends through twelve countries:** Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Uzbekistan. China contains as much as 60% of all snow leopard habitat areas.
- Listed on **Appendix I of the Convention on International Trade of Endangered Species (CITES)**.
- **Global Snow Leopard Forum, 2013:** 12 countries encompassing the snow leopard's range (Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyz Republic, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Uzbekistan).
- **Bishkek Declaration:** To protect the species and its environment.
- **Global Snow Leopard and Eco-system Protection Program:** It is a joint initiative of range country governments, international agencies, civil society, and the private sector. Goal — secure the long-term survival of the snow leopard in its natural ecosystem.

65. WHAT IS CRYODRAKON BOREAS?

- Paleontologists have identified a new species, named it Cryodrakon boreas, and declared that it could be one of the largest flying animals.
- With a wingspan of over 10 metres, it is believed to have flown over the heads of dinosaurs.
- The reptile lived over 77 million years ago in what is western Canada today.

66. BOIGA THACKERAYI

- It is a new species of snake that has been discovered in the Western Ghats in Maharashtra.
- The species falls in the category commonly called cat snakes.
- It belongs to the genus Boiga and has Tiger like stripes on its body.
- This is the second species of Boiga after B. dightoni that is endemic to the Western Ghats and the first new species of Boiga described after 125 years from the Western Ghats.

67. MICROHYLA EOS

- It is a newly discovered species of frog from Arunachal Pradesh.
- It was discovered from riparian habitats in a primary evergreen forest in the Namdapha Tiger Reserve of

the state, which is also the eastern-most protected area in the country.

- Since Arunachal Pradesh is popularly known as 'the land of rising sun' or 'the land of dawn-lit mountains', the new species has been named as eos, after the mythological Greek goddess of dawn.
- **Microhyla** are a group of narrow-mouthed frogs that is primarily and widely distributed in Asia. Commonly known as 'Rice Frogs' or 'Chorus Frogs', the genus currently comprises of 49 recognised species.

68. BAMBOONOMICS

- It is a movement to combat desertification and climate change which will involve the tribal community of India since they have the expertise in this field.
- The movement will ensure that tribals can earn a livelihood without causing environmental harm.
- It was launched at the COP 14 of the United Nations Convention to Combat Desertification (UNCCD).

69. DROUGHT TOOLBOX

- **Context:** At the ongoing 14th Conference of Parties (COP14) to United Nations Convention to Combat Desertification (UNCCD), a Drought Toolbox has been launched.

What is it?

- A kind of knowledge bank that may be used by vulnerable countries, such as India, to reduce drought risk and be better prepared and effectively respond to it.
- It is a web page that provides involved stakeholders easy access to case studies and other resources to support action on drought preparedness with aim to boost resilience of people and ecosystems to drought.
- It contains tools that strengthen ability of vulnerable countries and enable communities to anticipate and prepare for drought effectively, mitigate their impacts and find land management tools that help them to build resilience to drought.
- It will help countries in framing/fine-tuning their respective national drought policies in due course based on monitoring, forecast, and early warning.

70. #FRIDAYSFORFUTURE

- It is a movement that began in August 2018, after 15 years old Greta Thunberg sat in front of the Swedish parliament every school day for three weeks, to protest against the lack of action on the climate crisis.
- On the 8th of September, Greta decided to continue striking every Friday until the Swedish policies provided a safe pathway well under 2-degree C, i.e. in line with the Paris agreement.
- It has now become an international movement of school students who take time off from class to

- participate in demonstrations to demand action to prevent further global warming and climate change.
- Why in News?** Between September 20 and September 27, 2019 FFF, is marking **Global Climate Strike**. The strike is timed to be in sync with the Climate Action Summit that UN Secretary-General António Guterres will hold on September 23, 2019 to address the “global climate emergency”.

71. UN GLOBAL CLIMATE ACTION AWARDS

Context: Winners of the 2019 UN Global Climate Action Awards Announced.

- The 15 award-winning projects fall within four **focus areas**: Planetary Health, Climate Neutral Now, Women for Results, and Financing for Climate Friendly Investment.
- The Awards are spearheaded by the **Momentum for Change initiative** at UN Climate Change.
- The projects are recognized as innovative solutions that not only address climate change, but also help drive forward progress on many other sustainable development goals, for example, innovation, gender equality and economic opportunity.
- From India, **IT major Infosys** has won the United Nations Global Climate Action Award (UNGAA) in the ‘**Climate Neutral Now**’ category for “**Infosys’ Journey to Carbon Neutrality**”.
- The UN Climate Change’s Momentum for Change initiative** is implemented with the support of **The Rockefeller Foundation**. It operates in partnership with World Economic Forum (WEF), donors supporting implementation of UN Climate Change’s Gender Action Plan and Climate Neutral Now.

72. ‘ANGAN’- INTERNATIONAL CONFERENCE ON ENERGY EFFICIENCY IN BUILDING SECTOR

- The recently held international conference, **ANGAN (Augmenting Nature by Green Affordable New-habitat)**, focussed on Energy Efficiency in Building Sector.
- Organised by the Bureau of Energy Efficiency (BEE)**, Ministry of Power, Government of India in collaboration with GIZ under the Indo German Technical Cooperation.
- It’s aim is to provide a platform to deliberate on interdependence between organizations, systemic sustainability and feedback loops for better resource efficiency.

73. GERMANY TO PHASE OUT GLYPHOSATE BY 2023

- Germany** took this step to protect insect populations that play a pivotal role in ecosystems and pollination of food crops.
- Glyphosate** is used widely in agriculture, forestry, urban and home applications.
- Concerns:** Its use has been surrounded by much debate due to safety concerns. The World Health Organization’s **International Agency for Research**

on Cancer (IARC) had declared glyphosate it “probably” carcinogenic to humans.

74. NONYLPHENOL (NP)

- What is it?** It is a harmful chemical found in detergents. It is banned in several countries or is being phased out owing to its harmful effects on humans and aquatic organisms.

Key facts:

- NP is a persistent, toxic, bio-accumulative chemical.
- It acts as a hormone disruptor and can be responsible for a number of human health effects.
- Its exposure through water, soil and food crops may result in a burning sensation, cough, laboured breathing, sore throat, unconsciousness, skin irritation and burns.
- Upon ingestion, it may cause abdominal pain, diarrhoea, nausea and sore throat. It is also toxic for aquatic animals.
- It has amphiphilic properties and is substantially used as a surfactant in the textile industry.
- Regulation:** The Bureau of Industry Standards (BIS) has set the standard of phenolic compounds for drinking water (0.001 mg/L) and surface water (5.0 mg/L). However, unlike other countries, India does not have specific standards for Nonylphenol in drinking water and surface water.

75. PARAQUAT

- Paraquat is a toxic chemical that is widely used as an herbicide (plant killer), primarily for weed and grass control.
- It has been banned in 32 countries including Switzerland, where herbicide producing company Syngenta is based. Paraquat also figures on the list of 99 pesticides and herbicides the Supreme Court to ban in an ongoing case.
- There is no antidote to this herbicide, the consumers of which complain of kidney, liver and lung problems.
- They may recover from kidney problems, but die of lung- and liver-related ailments. Some also witness kidney failure.

76. LIGNIN

- Lignin is a complex organic polymer rich in polyphenols with antimicrobial qualities.
- It is found in almost all dry plants including crop residues and the woody bark of trees.
- Abundant quantities of lignin are generated as post-harvest agro-biomass and in paper and pulp industries every year, which often go waste.
- Why in News?** Researchers have developed a lignin-based nanocomposite which could potentially have commercial value. The lignin-based nanomaterial can act as additive in coating and packaging materials.

77. PUSA YASHASVI

- It is a **new wheat variety** unveiled recently by the Indian Agricultural Research Institute (IARI).
- Also Called **HD-3226**, the new variety has a higher weighted average yield compare to predecessors.
- It also has **higher content of protein and gluten** (which contributes to strength and elasticity of the dough), apart from more zinc (at 36.8 parts per million).
- It has **high levels of resistance against all major rust fungi** — yellow/stripe, brown/leaf and black/stem.
- It will **grow to its full maturity duration of 150 days** and is ready for harvesting by end-March/early-April, 10-15 days before other wheat varieties.
- It is **also ideal for zero-tillage planting**.

78. HAPPY SEEDER

- What is it?** Happy Seeder (HS) or Turbo Happy Seeder (THS) is a tractor-operated machine developed by the Punjab Agricultural University (PAU) in collaboration with Australian Centre for International Agricultural Research (ACIAR), for in-situ management of paddy stubble (straw).
- Significance:** Using Happy Seeders for direct wheat sowing leads to increased productivity and farmers can ‘stop burning paddy stubble’ to clear the fields.

79. GOLDSCHMIDTITE

- It is a new mineral that has been discovered recently inside a diamond unearthed from a mine in South Africa.
- It has been found in Earth’s Mantle (A part of Interior of the Earth) which covers 80% of earth’s volume.
- Composition:** It has high concentrations of niobium, potassium and the rare earth elements lanthanum and cerium.
- Features:** The found single grain is dark green in colour and opaque.
- Nomenclature:** The mineral has been named after the Norwegian scientist Victor Moritz Goldschmidt, who is considered as the founder of Modern Geochemistry.

80. ASTEROID NAMED AFTER PANDIT JASRAJ

- The International Astronomical Union (IAU) has named an asteroid/minor planet, discovered in 2006, after Indian classical singer Pandit Jasraj. He is the **first Indian to receive this honour**.
- About Pandit Jasraj:** He is an exponent of Indian classical vocal music. He is the recipient of numerous awards, honours, and titles, including the prestigious Padma Vibhushan and the Sangeet Natak Akademi Award.

81. SAGITTARIUS A*

- What is it?** It is a **supermassive black hole** 26,000 light years away from Earth, near the Galactic Centre, or the centre of the Milky Way.
- Why in News?** In recent years, it has shown unusual activity, and the area around it has been much brighter than usual.

Possible reasons for this:

- It may be that the Sagittarius A* has become hungrier, and has been feeding on nearby matter at a markedly faster rate, described as a “**big feast**”.
- It could be **growing faster than usual in size**, or that the current model that measures its level of brightness is inadequate and is in need of an update.
- A **black hole does not emit light by itself, but the matter that it consumes can be a source of light**. A large quantity of gas from the S0-2 star, which travelled close to the black hole last year, may now have reached the latter.

82. LUNAR MISSIONS SO FAR

- Chandrayaan-2 is **110th Moon mission** and the **11th this decade**.
- 90 out of the 109 so far, were **sent between 1958 and 1976**.

Key Moon missions so far:

- Flybys:** Pioneer 3 and 4 by the United States and Luna 3 of the then USSR.
- Orbiters:** Chandrayaan-1.
- Rovers:** The rover onboard Vikram lander in the Chandrayaan-2 mission is called **Pragyaan**. Earlier this year, a Chinese lander and rover mission reached the moon.

Human missions: So far only NASA of the United States has been able to land human beings on the moon. So far, six teams of two astronauts each have landed on the moon, all between 1969 and 1972. After that, no attempt has been made to land a moon.

83. ACCRETION DISC

- What is it?** The black hole’s extreme gravity skews light emitted by different regions of the disc, producing the misshapen appearance.
- This visualization simulates the appearance of a black hole where infalling matter has collected into a thin, **hot structure** called an accretion disc.

84. RAMANUJAN PRIZE

- Context:** SASTRA Ramanujan prize for 2019 will be awarded to mathematician Adam Harper, Assistant Professor with the University of Warwick, England.
- Every year, this prize is awarded by SASTRA University on its campus near Kumbakonam in Tamil Nadu, on Ramanujan’s birth anniversary, December 22.
- The prize carries a citation and an award of \$10,000 and is conferred annually on mathematicians from

across the world who are less than 32 years of age, working in an area influenced by the genius Srinivasa Ramanujan.

- The age limit is 32 years to commemorate the fact that Srinivasa Ramanujan accomplished a phenomenal body of work in this short span.

85. DADASAHEB PHALKE AWARD FOR 2019

- Context:** Dadasaheb Phalke Award for 2019 will be presented to Amitabh Bachchan.
- It is the **country's highest film honour** conferred for "**Outstanding contribution for the growth and development of Indian cinema**".
- The Award was introduced by the government in 1969 and it was awarded for the first time to Devika Rani, "**the first lady of Indian cinema**".

86. SARASWATI SAMMAN

- Eligibility:** Saraswati Samman is the annual award given to an outstanding literary work in any Indian language mentioned in Schedule VIII of the Constitution and published in 10 years preceding the specified award year.
- Significance:** It is the highest recognition in the field of Indian literature in the country and carries a citation, a plaque and award money of ₹15 lakh.
- The award is **presented by the KK Birla Foundation**, a literary and cultural organisation that also gives the **Vyas Samman for Hindi, and Bihari Puraskar** for Hindi and Rajasthani writers of Rajasthan.

87. SHANTI SWARUP BHATNAGAR PRIZE

- Context:** President of India Ram Nath Kovind, presented Shanti Swarup Bhatnagar Prizes 2019, for outstanding contributions in science and technology.
- What is it?** The award is named after the founder Director of the Council of Scientific & Industrial Research (CSIR), the late Dr (Sir) Shanti Swarup Bhatnagar and is known as the 'Shanti Swarup Bhatnagar (SSB) Prize for Science and Technology'. The Prize is given each year for outstanding contributions to science and technology.
- Nature of the Prize:** SSB Prizes, each of the value of Rs 5,00,000 (Rupees five lakh only), are awarded annually for notable and outstanding research, applied or fundamental, in the following disciplines: (i) Biological Sciences, (ii) Chemical Sciences, (iii) Earth, Atmosphere, Ocean and Planetary Sciences, (iv) Engineering Sciences, (v) Mathematical Sciences, (vi) Medical Sciences and (vii) Physical Sciences.

Eligibility:

- Any citizen of India engaged in research in any field of science and technology up to the age of 45 years. Overseas citizen of India (OCI) and Persons of Indian Origin (PIO) working in India are also eligible.
- The Prize is bestowed on a person who, in the opinion of CSIR, has made conspicuously important and outstanding contributions to human knowledge and progress – fundamental and applied – in the

particular field of endeavour, which is his/her specialization.

- The Prize is awarded on the basis of contributions made through work done primarily in India during the five years preceding the year of the Prize.

88. SARDAR PATEL NATIONAL UNITY AWARD

- Context:** A notification instituting the **Sardar Patel National Unity Award** was recently issued by **Ministry of Home Affairs**.

Key facts:

- It is the **Highest Civilian Award for contribution to Unity and Integrity** of India.
- The Award seeks to **recognize notable and inspiring contributions to promote the cause of national unity and integrity and to reinforce the value of a strong and united India**.
- The award will be **announced on the occasion of the National Unity Day**, i.e. the birth anniversary of Sardar Patel on 31st October.
- The Award shall be **conferred by the President by a Sanad under his hand and seal** and presented by him in a presentation ceremony along with the Padma award presentation ceremony held in Rashtrapati Bhawan.
- An Award Committee** would be constituted by the Prime Minister, which would include the Cabinet Secretary, Principal Secretary to the Prime Minister, Secretary to the President, Home Secretary as Members and three-four eminent persons selected by the Prime Minister.
- The Award would consist of** a medal and a citation. **No monetary grant or cash award** would be attached to this Award.
- Not more than three Awards would be given in a year**.
- It would **not be conferred posthumously except in very rare and highly deserving cases**.
- Eligibility:** Any Indian national or institution or organization based in India would be able to nominate an individual for consideration for this Award. Individuals may also nominate themselves. State Governments, UT Administrations and Ministries of Government of India may also send nominations.

Sardar Patel National Unity Award



89. WHO IS A PROFESSOR EMERITA/EMERITUS, AND HOW IS SHE/HE APPOINTED?

- Worldwide, 'Professor Emeritus/Emerita' is the title bestowed upon an eminent retired academic in recognition of their work and distinguished service.
- In India, the University Grants Commission (UGC) has a 'Scheme of Emeritus Fellowship' in order "to provide an opportunity to the superannuated teachers who have been actively engaged in research and teaching programmes in the preceding years to undertake research, without any restriction of position or pay scales".
- Eligibility:** The awardee (superannuated) can work under this scheme with a well-defined time-bound action plan up to the age of 70 years or up to two years (non-extendable) of the award whichever is earlier."

90. GLOBAL GOALKEEPERS GOALS AWARD 2019

- Context:** Prime Minister Narendra Modi is honoured with the prestigious 'Global Goalkeeper Award'.

Key facts:

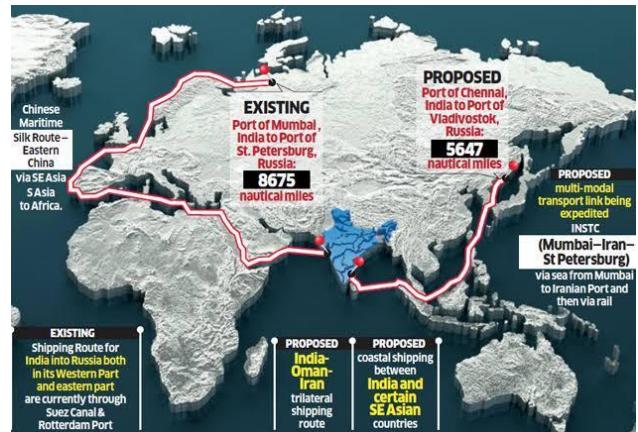
- The award is conferred by the Bill and Melinda Gates Foundation.
- The annual awards, in five categories, are presented to leaders and individuals for their efforts in achieving the Sustainable Development Goals (SDGs).
- The categories are Progress, Changemaker, Campaign, Goalkeepers Voice and the Global Goalkeeper.

91. MT. KUN

- Context:** The Indian Army recently conducted a mountaineering expedition to Mt. Kun.
- Kun is the second-highest peak in between the Zanskar and Kargil regions of Ladakh.
- It is a part of the Nun Kun mountain massif in the Himalayas.
- Nun (7135 m) is the highest peak in the part of the Himalayan range lying on the Indian side of the Line of Control in Jammu and Kashmir.

92. MARITIME ROUTE BETWEEN CHENNAI AND VLADIVOSTOK

- Context:** A Memorandum of Intent was recently signed for the development of maritime communications between Chennai and Vladivostok in Russia's Far East Region after Prime Minister Narendra Modi's talks with Russian President Vladimir Putin.
- This assumes significance because it ensures there will be connectivity between the two major ports which will give impetus to the cooperation between India and the Russian Far East.



93. HURRICANE DORIAN

- Context:** India has announced an immediate humanitarian assistance of \$1 million to help people in **The Bahamas affected by Hurricane Dorian**.

Background:

- Hurricane Dorian has caused a large scale destruction in **The Bahamas**.
- It was an extremely powerful and destructive **Category 5 hurricane**. It was the first major hurricane of 2019 Atlantic hurricane season.



94. PANGONG TSO LAKE

- Context:** The Indian and Chinese armies clashed recently along the Pangong lake in Ladakh.

Key facts:

- Pangon lake or Pangong Tso, a 135-km long lake, located in the Himalayas at the height of approximately 4,350 m, stretches out from India to China.
- One-third of water body, its 45 km stretch, is in Indian control while the rest of the 90 km is under Chinese control.
- It is formed from Tethys geosyncline.
- It is a salt water lake.
- Strategic significance:** By itself, the lake does not have major tactical significance. But it lies in the path of the Chushul approach, one of the main approaches that China can use for an offensive into Indian-held territory.

95. INDIA-NEPAL PETROLEUM PIPELINE

- Motihari-Amalekhgunj petroleum pipeline** will transport fuel from Barauni refinery in Bihar's Begusarai district to Amalekhgunj in southeastern Nepal, situated across the border from Raxaul in East Champaran district.
- The **69-km pipeline** will drastically reduce the cost of transporting fuel to landlocked Nepal from India.



96. WORLD'S SECOND LARGEST COAL BLOCK

- Deucha Panchami coal block of Birbhum Coalfield Area** is World's Second Largest Coal Block.
- Situated in West Bengal. This coal mine is the largest coal mine or coal block in Asia, due to the number of coal reserves.

97. GANDAN TEGCHENLING MONASTERY

- Context:** A statue of Lord Buddha and his two disciples, installed at the historic **Gandan Tegchenling Monastery** in Ulaanbaatar, was recently unveiled by PM Modi.

Key facts:

- Gandan Tegchenling Monastery is a prominent centre of Mongolian Buddhists and a treasure house of valuable Buddhist heritage.
- It hosted the 11th General Assembly of Asian Buddhist Conference for Peace (ABCP) from 21-23 June 2019 marking the 50th anniversary of the Conference.

98. WEST BANK

- Context:** Israel has cut off power to some parts of occupied West Bank due to outstanding payments.

Key facts:

- The West Bank is a **landlocked territory**, which is bordered by Jordan to the east and the Green Line separating it and Israel in the north, south and west.
- The territory was **occupied by Israel during the six-day war in 1967**.
- Under the **Oslo Accords**, which was signed by Israel and the Palestine Liberation Organization (PLO) in September 1993, the two sides agreed that West Bank and Gaza Strip would be treated as a single territorial unit.



99. SIACHEN GLACIER

- Why in News?** The Army has removed 130 tonnes of solid waste from the **Siachen glacier** as part of a mega drive to protect the eco-system of the world's most dangerous battlefield.

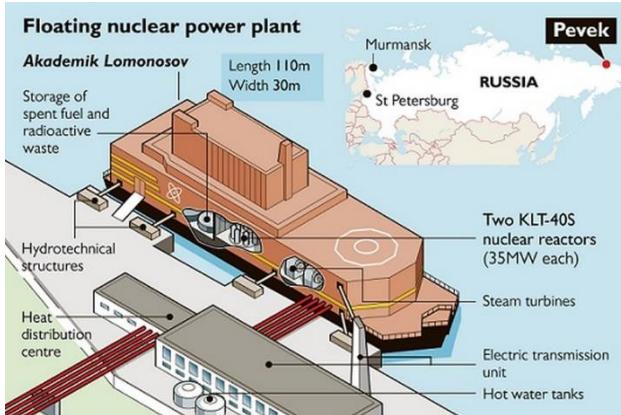
Key facts:

- Lies in the **Karakoram Range system** which is a part of western Himalayas.
- Lies to the **south of the zone that separates Eurasian Plate** with the Indian Plate, which is the result of convergence boundary interaction in geographical terms.
- It is the **highest battle field** in the world and lies on LoC (Line of Control) between India and Pakistan. It has been continuously contested by Pakistan as its own part which has led to militarisation of the glacier.
- After the Indo-Pakistan war in 1971, an agreement was signed between the two countries in 1972, which came to be known as the **Shimla Agreement**, but it failed to clearly mention who controls the glacier.
- However, in 1984, the Pakistan army tried to enter the glacier, forcing India to launch a military operation known as "**Operation Meghdoot**" and since then we have control over the glacier. Frequent skirmishes did occur between 1984 to 2003. A ceasefire agreement was signed between India and Pakistan in 2003.
- The glacier is the source of many rivers including **Nubra River**, a tributary of Shyok, which is a part of the Indus River System.
- Siachen Glacier also boasts of the **world's highest helipad built** by India at Point Sonam, to supply its troops. India also installed the world's highest telephone booth on the glacier.
- The region is also a home to rare **species** of snow leopard, brown bear etc which may be affected by

military presence. This has led to talks in international forums about creating a "Peace Park" in the area and demilitarise it.

100. AKADEMIK LOMONOSOV

- What is it?** It is the world's only floating nuclear power unit. The plant was launched by Russia on May 19, 2018 at the St Petersburg shipyard.
- Context:** Recently, this floating nuclear power plant completed its 5,000-km journey along the Northern Sea Route. This has sparked fears among environmentalists over the safety of the Arctic region.



101. GANDHI SOLAR PARK AT UN HEADQUARTERS

- Context:** PM Modi inaugurates Gandhi Solar Park at UN headquarters.
- It is a 50 kilowatt Solar Park at the Headquarters of the United Nations.
- At a contribution of about \$1 million, India has gifted solar panels for this park.

102. TRAVEL & TOURISM COMPETITIVENESS REPORT 2019

- Released by the World Economic Forum.
- Covers 140 economies.
- The study scores countries on four indicators — enabling environment; travel and tourism policy and enabling conditions; infrastructure; natural and cultural rankings.

Performance of India:

- India is ranked 34, up six places from 2017.
- India's highest improvement was in enabling environment, by 10 places to 98.
- The least improvement is in infrastructure as well as in natural and cultural rankings, by just three places each, but India's rank was already high in the latter.

Global performance:

- Spain, France, Germany, Japan and the United States are the world's most travel-ready nations.

103. WORLD UNIVERSITY RANKINGS 2020

- Released by TIMES Higher Education (THE). This is 16th edition.

- Included over 1,300 universities from 92 countries.

Key facts:

- 56 Indian institutions (up from 49 last year) made entry into the table this year, making India the fifth most-represented country in the list and the third in Asia (behind Japan and China).
- The University of Oxford retained the top position for the consecutive fourth year.
- The Indian Institute of Science (IISc) Bangalore topped the Indian universities on the list (although its ranking fell from the 251-300 group in 2019 to the 301-350 bracket in 2020). It now shares this position with the Indian Institute of Technology (IIT) Ropar- which made a debut entry into the list.
- It is the first time since 2012, that an Indian university has not featured in the top 300 of the ranking.

104. SEPTEMBER 17- WORLD PATIENT SAFETY DAY

- The first World Patient Safety Day was observed by World Health Organisation (WHO) on September 17.
- It aims to create awareness around patient safety and urge people to show commitment to making healthcare safer.
- Theme—'Patient Safety: a global health priority' and slogan is 'Speak up for patient safety'.

105. INTERNATIONAL DAY OF PEACE 2019

- Context:** United Nations (UN) General Assembly declared 21 September as International Day of Peace.
- Objective:** Established in 1981 by unanimous United Nations resolution, Peace Day provides a globally shared date for all humanity to commit to Peace above all differences and to contribute to building a Culture of Peace.
- Theme:** "Climate Action for Peace".

106. INTERNATIONAL SIGN LANGUAGE DAY

- UN declared 23rd September as International Sign Language Day.
- The day was first observed in 2017. This date was selected because this was the date when the World Federation of the Deaf was established in 1951.
- The theme for 2019 is Sign Language-Rights for all.
- The objective of celebrating this day is enhancing the awareness of sign language and making the reach of sign language greater.

Indian Sign Language Research and Training Centre (ISLRTC):

- It is an autonomous body under the Department of Empowerment of Persons with Disabilities, Ministry of Social Justice and Empowerment.
- The Centre was established in 2015.

- The Centre carries out many activities for promoting the use of Indian Sign Language as the educational mode for deaf students at primary, secondary and higher education levels.

108. WORLD MARITIME DAY 2019

- Context:** It is being observed on **September 26** to celebrate the maritime industry's contribution to the global economy.
- It emphasises on the importance of maritime security, marine environment and shipping safety.**
- Theme:** "Empowering Women in the Maritime Community".
- This day marks date of adaptation of International Maritime Organization (IMO) Convention in 1958.** The day was first observed in 1978.

109. 5TH INTERNATIONAL RAMAYANA FESTIVAL AND ICCR

Context: It was organized by **Indian Council for Cultural Relations (ICCR)** in New Delhi recently.

- About Indian Council for Cultural Relations (ICCR):** ICCR was founded in 1950 by Maulana Abul Kalam Azad, Independent India's first Education Minister.

Objectives:

- To actively participate in the formulation and implementation of policies and programs pertaining to India's external cultural relations. To foster and strengthen cultural relations and mutual understanding between India and other countries to promote cultural exchanges with other countries and people, and to develop relations with nations.

110. UN MISSION IN SUPPORT OF THE HODEIDAH AGREEMENT (UNMHA)

- UN Secretary recently announced the appointment of **Abhijit Guha**, a retired Indian lieutenant general as the head of the **UN mission in Hodeidah, Yemen**.
- Roles:** Besides leading the UN Mission in support of the Hodeidah Agreement (UNMHA), Guha will be also assume chair of the Redeployment Coordination Committee (RCC), tasked with redeploying forces of the Yemeni warring parties in accordance with their agreement.

About UNMHA:

- On 16 January 2019, the UN decided to establish **United Nations Mission to support the Hodeidah Agreement (UNMHA)**.
- It is a special mission to oversee governorate-wide ceasefire, mine action operation and redeployment of forces.
- It was authorised for an initial period of 6 months to lead and support functioning of Redeployment Coordination Committee (RCC), assisted by a secretariat staffed by UN personnel.

111. INDIA AMONG TOP 10 NATIONS IN GOLD RESERVES

- According to the latest release by the World Gold Council**, U.S. leads the country list with total gold reserves of 8,133.5 tonnes followed by Germany with 3,366.8 tonnes.
- IMF is ranked third, it is followed by countries such as Italy, France, Russia, China, Switzerland and Japan before India at the 10th spot.
- India has pipped the Netherlands to move into the list of top ten countries in terms of total gold reserves.
- According to the World Gold Council, India has gold reserves totalling 618.2 tonnes, which is marginally higher than the Netherlands' reserves of 612.5 tonnes.
- Interestingly, in terms of individual countries, India actually ranks ninth since the International Monetary Fund (IMF) occupies the third position after the U.S. and Germany.

112. ICC'S DEMERIT POINT SYSTEM

- Context:** The Indian skipper has accumulated three demerit points since he received his first in the Centurion Test on January 15, 2018.

What is it?

- ICC's demerit points system is a player's personal disciplinary record. They get expunged after a 24-month time period.
- When a player reaches four or more demerit points within 24 months, the demerit points are converted into suspension points leading to a player getting suspended from international cricket.

113. CARIBBEAN COMMUNITY (CARICOM OR CC)

- Context:** Prime Minister of India met with 14 leaders of the **CARICOM group of countries** on the sidelines of the United Nations General Assembly in New York.
- Outcome:** The meeting deliberated on the steadily intensifying and deepening relations between India and partner countries of the Caribbean, not only in the bilateral but also in the regional context.
- India's assistance:** India has provided immediate financial assistance of USD 1 million to recover from the destruction caused by Hurricane Dorian in the region and the worst-hit island of Bahamas.
- India also announced a USD 14 million grant for community development projects in the CARICOM and another 150 million Line of Credit for solar, renewable energy and climate-change-related projects.

What is CARICOM?

- It is an **organisation of fifteen Caribbean nations** and dependencies having primary objectives to promote economic integration and cooperation among its members, to ensure that the benefits of

- integration are equitably shared, and to coordinate foreign policy.
- The organisation was established in 1973.
 - Its major activities involve coordinating economic policies and development planning; devising and instituting special projects for the less-developed countries within its jurisdiction; operating as a regional single market for many of its members (Caricom Single Market); and handling regional trade disputes. The secretariat headquarters is in Georgetown, Guyana.
 - CARICOM is an official United Nations Observer.