OCTOBER 1 – 31, 2020 CURRENT AFFAIRS

INDEX

A. *POLITY AND GOVERNANCE*

1.DEFENCE OFFSET:

What's in news?

The Defence Ministry came up with its latest **Defence Acquisition Procedure 2020 (DAP 2020)** which comes into effect from October 1.

Changing a 15-year old policy, the government has decided to remove the clause for offsets if the equipment is being bought either through deals or agreements between two countries, or through an ab initio single-vendor deal.

What are defence offsets?

The Comptroller and Auditor General (CAG), in a report defined offsets as a "mechanism generally established with the triple objectives of:

(a) partially compensating for a significant outflow of a buyer country's resources in a large purchase of foreign goods

(b) facilitating induction of technology and

(c) adding capacities and capabilities of domestic industry".

An offset provision in a contract makes it obligatory on the supplier to either "reverse purchase, execute export orders or invest in local industry or in research and development" in the buyer's domestic industry

When was the policy introduced?

(i) The policy was adopted on the recommendations of the **Vijay Kelkar Committee in 2005**

(ii) **The Sixth Standing Committee on Defence (2005-06)** had recommended in December 2005 in its report on Defence Procurement Policy and Procedure that modalities for implementation of offset contracts should be worked out.

(iii) The first offset contract was signed in 2007.

Key objectives of the Defence Offset Policy :

It is to leverage capital acquisitions to develop Indian defence industry by

(i) fostering development of internationally competitive enterprises,

(ii) augmenting capacity for Research, Design and Development related to defence products and services and

(iii) encouraging development of synergistic sectors like civil aerospace, and internal security

Will no defence contracts have offset clauses now?

(i) Only government-to-government agreements (G2G), ab initio single vendor contracts or inter-governmental agreements (IGA) will not have offset clauses anymore. For example, the deal to buy 36 Rafale fighter jets, signed between the Indian and French governments in 2016, was an IGA. *(Ab initio single vendor means that when you start the process you have only one vendor)*

(ii) IGA is an agreement between two countries, and could be an umbrella contract, under which you can go on signing individual contracts

(iii) According to DAP 2020, all other international deals that are competitive, and have multiple vendors vying for it, will continue to have a 30% offset clause

Advantage of the new Defence Acquisition Procedure 2020 (DAP 2020):

(i) It will help in Ease of Doing Business

(ii) It will rationalize the procedure for trials and testing

(iii) Boost the Make in India initiative

(iv) It will be helpful in import substitution and reducing Life Cycle cost

(v) It will be helpful in developing domestic and indigenous content

(vi) India is one of the major country has spends more money for defence, this will help in cost cutting

Other Initiatives to improve the defence sector

i. Government recently enhanced the foreign investment limit in the defence sector from **49% to 74% under the automatic sector** for companies seeking new industrial licences

ii. **Innovations for Defence Excellence (iDEX)** is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has potential for future adoption for Indian defence and aerospace needs.

iii. **Mission Raksha Gyan Shakti** which aims to provide boost to the **IPR culture** in indigenous defence industry.

iv. **Technology Development Fund** to encourage participation of public/private industries especially MSMEs, through provision of grants, so as to create an eco–system for enhancing cutting edge technology capability for defence applications

v. Government has notified the **'Strategic Partnership (SP)' Model** which envisages establishment of long-term strategic partnerships with Indian entities through a transparent and competitive process, wherein they would tie up with global Original Equipment Manufacturers (OEMs) to seek technology transfers to set up domestic manufacturing infrastructure and supply chains.

2. Supreme Court questions NCPCR on children 'repatriation'

What's in News?

The Supreme Court sought a response from the country's apex child rights body, the National Commission for Protection of Child Rights (NCPCR), to its request to eight States to "produce" children living in care homes before the local child welfare committees for their "immediate repatriation" with their families.

Repatriation States:

i. The NCPCR reportedly wrote to **Tamil Nadu, Andhra Pradesh, Telangana, Mizoram, Karnataka, Kerala, Maharashtra and Meghalaya** in this regard.

ii. These States combinedly have 1.84 lakh children in care homes.

iii. This accounts for over **70% of the children in care homes.**

Court Decision:

i. The court is suo motu monitoring the condition and welfare of children places in care homes across the country during the pandemic.

ii. This **a form of judicial activism** of the Court

(The active role of the judiciary, even in the executive or legislative sphere, for upholding the rights of citizens and preserving the constitution is known as judicial activism)

SC Vs. NCPCR:

i. SC wants the repatriation of the children to their families should be done on an individual basis

ii. While NCPCR opposes the Stand

iii. The NCPCR, explained need for a child to grow up in a familial environment.

iv. According to Amicus curiae the NCPCR direction violated the Juvenile Justice Act of 2015.

v. Besides, the pandemic would make a child more vulnerable to domestic abuse.

(Amicus Curiae - "friend of the court" - one who assists the court advice regarding questions of law or fact)

Child Care Homes:

i. The children being taken in child care homes, are not only those who are orphans/abandoned children, but also

children hailing from downtrodden/financially unstable families.

ii. Therefore, if there is any child who is either being brought up by a single parent or comes from a family which is not able to bring up the child properly, then that child can avail all the facilities at a care home.

iii. All the children in these care homes are required to study in nearby government schools

Juvenile Justice Act, 2015:

i. The Juvenile Justice (Care and Protection of Children) Act, 2015 comprehensively addresses children in conflict with law and children in need of care and protection.

ii. As per the Section 27(1) of the Act, **Child Welfare Committees (CWCs)** are to be constituted **by State Government** by notification in the Official Gazette for every district, for exercising the powers and to discharge the duties conferred on such Committees in relation to children in need of care and protection under the Act

iii. In the Indian context, a juvenile or child is any person who is below the age of 18 years.

NCPCR:

i. The National Commission for Protection of Child Rights (NCPCR) was set up in March 2007 as a **statutory body** under the Commissions for Protection of Child Rights (CPCR) Act, 2005

ii. 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.

iii. It is under the **administrative control** of the **Ministry of Women & Child Development**.

iv. It **monitors** the implementation of Protection of Children from Sexual Offences **(POCSO) Act, 2012** and also

receives complaints under the **Right to Education Act, 2009**

v. It also examine all factors that inhibit the enjoyment of rights of children affected by terrorism, communal violence, riots, natural disaster, domestic violence, HIV/AIDS, trafficking, maltreatment, torture and exploitation, pornography and prostitution and recommend appropriate remedial measures.

3**. Tamil Nadu defends Mullaperiyar dam panel**

What's in News?

The Tamil Nadu government has rebutted allegations made in the Supreme Court that the Supervisory Committee for Mullaperiyar Dam "abdicated its duties" to evaluate the safety of the structure and water levels.

Mullaperiyar Dam:

i. Mullaperiyar Dam is a masonry gravity dam on the Periyar River in Kerala

ii. It is located on the confluence of the Mullayar and Periyar rivers
(Periyar originates from the Sivagiri hills of Western Ghats and flows through the Periyar National Park)

iii. In 1886, a lease was made between the Maharaja of Travancore and Secretary of State for India, Lord Kimberley for Periyar Irrigation works.

iv. This lease was for 999 years

v. It was constructed between 1887 and 1895 by John Pennycuick and also reached in an agreement to divert water eastwards to the Madras Presidency area (present-day Tamil Nadu).

vi. It is operated and maintained by the Tamil Nadu for meeting the drinking water and irrigation requirements of five of its southern districts.

vii. By an agreement in 1970; Tamil Nadu was permitted to generate power also.

viii. The controversy began over safety of the dam in 1979, after a report was published in the media about damage to the dam.

ix. The **Ministry of Jal Shakti** has constituted a **three-member Supervisory Committee** to settle the issue of Mullaperiyar dam between Kerala and Tamil Nadu.

What's now?

i. The Tamil Nadu government has rebutted allegations made in the Supreme Court that the Supervisory Committee for Mullaperiyar Dam "abdicated its duties" to evaluate the safety of the structure and water levels.

ii. The State countered allegations that the Supervisory Committee has "delegated" its duties to a sub-committee.

iii. The State explained that the sub-committee is chaired by the Executive Engineer, Central Water Commission (CWC), with headquarters in Kochi.

iv. It has members from both Kerala and Tamil Nadu.

v. The sub-committee periodically inspects the dam, collects data on seepage, collects water samples from the lake and seepage water, conducts water quality tests on them and so on and reports the details to the Supervisory Committee.

vi. The sub-committee members do not have any powers to give direction to the States.

vii. It is only doing the job of collecting information and data pertaining to the dam once in every two months

viii. The sub-committee is only assisting the Supervisory Committee.

ix. This cannot be called the delegation of the authority of the Supervisory Committee

x. Tamil Nadu said it has been unable to collect rainfall data in the catchment area of the dam spread across 601 sq. km. on the tiger reserve in Idukki district of Kerala.

xi. For forecasting the inflow from the catchment of the Mullaperiyar Dam, automatic rainfall stations coupled with telemetry system in the catchment area have to be installed.

xii. In that area, only one rain gauge station fitted with a weekly chart was available.

xiii. Even in that, Tamil Nadu was not allowed to collect rainfall data and to change the rainfall chart in the equipment by the Forest Department of Kerala, since 2014.

xiv. Forecasting System was not installed by Kerala till date

4. At 15, RTI Act crippled by rising backlog

What's in news?

Fifteen years after the Right to Information (RTI) Act came into force, more than 2.2 lakh cases are pending at the Central and State Information Commissions, which are the final courts of appeal under the transparency law

Right to Information (RTI) Act, 2005:

i. Right to Information (RTI) is an act of the Parliament of India which sets out the rules and procedures regarding citizens' right to information.

ii. It **replaced the former Freedom of Information Act, 2002**

iii. It came fully into force on 12 October 2005.

iv. Genesis of RTI law started in 1986, through judgement of Supreme Court in *Mr. Kulwal v/s Jaipur Municipal Corporation case*, in which it directed that freedom of speech and expression provided under Article 19 of the Constitution clearly implies Right to Information, as without information the freedom of speech and expression cannot be fully used by the citizens.

v. The Act empowers that any citizen of India may request information from a "public authority" (a body of Government or "instrumentality of State") which is required to reply expeditiously or within thirty days.

vi. In case of matter involving a petitioner's life and liberty, the information has to be provided within 48 hours.

vii. **"Public authority"** means any authority or body or institution of self government established or constituted—
   a. by or under the Constitution;
   b. by any other law made by Parliament/State Legislature.
   c. by notification issued or order made by the appropriate Government, and includes any—
      i. body owned, controlled or substantially financed;
      ii. non-Government organisation substantially financed, directly or indirectly by funds provided by the appropriate Government.

Highlights of the News:

According to the recent report by the Satark Nagrik Sangathan and the Centre for Equity Studies,

i. More than 2.2 lakh cases are pending at the Central and State Information Commissions
ii. The increasing backlog is exacerbated by the fact that most Commissions are functioning at reduced capacity, including the Central Information Commission (CIC)
iii. **Maharashtra had the highest number of pending appeals**, with over 59,000 cases, followed by Uttar Pradesh (47,923) and the CIC (35,653).
iv. At the current rate of disposal, the Odisha Commission would take more than seven years to dispose of all pending complaints, while the CIC would take more than two years
v. There is a high number of unfilled vacancies in the Commission, as per the RTI Act , **every commission should have a chief and up to 10 commissioners**, while many state doesnot even have half of its capacity, Example: Odisha is functioning with just four commissioners, while Rajasthan has only three. Jharkhand and Tripura have no commissioners at all, and have been defunct for months.

vi. The report found that the commission have been reluctant to impose penalties on government officials violating the RTI law.

5. Half of HCs yet to take first step towards e-courts

What's in News?

i. A recent status report submitted by the government (law ministry) before a parliamentary committee, showed 11 of the 25 high courts in the country are yet to adopt the e-filing system.
ii. Filing of cases electronically, or e-filing, is the first step in migrating to a virtual court (e-court) system, which has become a necessity in the pandemic-hit world.
iii. In about half of the states, e-filing is still in the trial stage, both in the high courts and the subordinate courts.
iv. West Bengal, Telangana, Bihar, Gujarat, Assam, Karnataka and J&K are among states with high pendency of cases where the high courts are yet to implement the very basics of the judicial reforms, either in the HC or in the subordinate courts under them.
v. The law ministry status report found poor implementation of the e-Courts project wherein over 14,400 courts are yet to be provided with video conferencing facility
vi. A decade-and a half long drive to modernise the judiciary came under severe attack as the parliamentary panel pointed out that more than 2,992 courts are yet to get even WAN connectivity.
vii. The Supreme Court exercised its plenary power under Article 142 to direct all high courts to frame a mechanism for use of technology during the pandemic.
viii. The e-Courts project was conceptualized on the basis of the **"National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian**

Judiciary – 2005" submitted by e-Committee, Supreme Court of India with a vision to transform the Indian Judiciary by ICT enablement of Courts.

ix. The **e-Courts Mission Mode Project**, is a Pan-India Project, monitored and **funded by Department of Justice, Ministry of Law and Justice, Government of India** for the District Courts (and also subordinate courts eventually) across the country.

6. Move to delete 'ineligible' names from Assam NRC

What's in news?

Authorities of the National Register of Citizens (NRC) in Assam have ordered the deletion of "ineligible" names from the prepared register

The NRC, published in August 2019 under the direct supervision of the Supreme Court, excluded 19 lakh-odd applicants out of around 3.3 crore applicants.

Whose names are deleted?

Some names of ineligible persons — persons declared as a foreigner by Foreigners Tribunals (DF), persons marked as Doubtful Voters (DV) by the election officials or persons whose cases are pending at Foreigners Tribunals (PFTs) and their descendants — "found entry to the NRC".

As per the laws governing the preparation of the NRC, persons falling in the above categories need to be kept out of the NRC.

Foreigners Tribunals (FTs) are quasi judicial bodies meant to give opinion on whether a person is an "illegal foreigner" as per The **Foreigners Act, 1946**. They send notices to people who are referred to them by the Border Police, or who have been marked as 'D' (doubtful) voters by the local election office

NRC:

1. NRC is an official record of those who are legal Indian citizens.
2. It includes demographic information about all those individuals who qualify as citizens of India as per the Citizenship Act, 1955.
3. **The register was first prepared after the 1951 Census of India** and since then it has not been updated until recently.
4. So far, such a database has only been maintained for the state of Assam.
5. In 2014, the SC ordered the updation of the of NRC, in accordance with Citizenship Act, 1955 and Citizenship Rules, 2003 in all parts of Assam.
6. One of the stated aims of the exercise is to identify so-called "illegal immigrants" in the state, many of whom are believed to have poured into Assam after the Bangladesh War of 1971.
7. The process officially started in 2015 and the updated final NRC was released on August 31, with over 1.9 million applicants failing to make it to the NRC list.
8. In 1985, the anti-foreigners' agitation led by the All Assam Students' Union came to an end with the signing of the Assam Accord.
9. Under this accord, those who entered the state between 1966 and 1971 would be deleted from the electoral rolls and lose their voting rights for 10 years, after which their names would be restored to the rolls.
10. **Those who entered on or after March 25, 1971, the eve of the Bangladesh War, would be declared foreigners and deported**.
11. The National Register of Citizens now takes its definition of illegal immigrants from the Assam Accord – anyone who cannot prove that they or their ancestors entered the country before the midnight of March 24, 1971, would be declared a foreigner and face deportation.

7. New group to revive Bodoland statehood stir

What's in News ?

AP - 127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

Led by former MP Sansuma K. Bwismwmuthiary, the apolitical organisation called All India Bodo People's National League for Bodoland Statehood has announced the revival of the Bodoland statehood movement ahead of the elections to the Bodoland Territorial Council (BTC)

Bodoland Movement :

→ Bodos are the single largest tribal community in **Assam**, making up over 5-6 per cent of the state's population. They have controlled large parts of Assam in the past.

→ The four districts in Assam — **Kokrajhar, Baksa, Udalguri and Chirang — that constitute the Bodo Territorial Area District (BTAD),** are home to several ethnic groups.

→ The Bodos have had a long history of separatist demands, marked by armed struggle.

→ In 1966-67, the demand for a separate state called Bodoland was raised under the banner of the Plains Tribals Council of Assam (PTCA), a political outfit.

→ In 1987, the All Bodo Students Union (ABSU) renewed the demand. "Divide Assam fifty-fifty", was a call given by the ABSU's then leader, Upendra Nath Brahma.

→ The unrest was a fallout of the Assam Movement (1979-85), whose culmination — the Assam Accord — addressed the demands of protection and safeguards for the "Assamese people", leading the Bodos to launch a movement to protect their own identity.

Bodo Accords :

I. The **first Bodo Accord** was signed in **February 1993** between the government and moderate leaders of the movement, including those of the All Bodo Students' Union (ABSU). This resulted in the creation of the **Bodoland Autonomous Council (BAC).**

II. The Centre signed the **second Bodo peace accord** with the Bodo Liberation Tigers (BLT) in February 2003, **elevating the Bodoland Autonomous Council (BAC) to the Bodoland Territorial Council (BTC)**

    a. BTC is an area governed under the 6th schedule. However, BTC is an exception to the constitutional provision under the 6th schedule.

    b. As it can constitute up to 46 members out of which 40 are elected.

    c. Of these 40 seats, 35 are reserved for the Scheduled Tribes and non-tribal communities, five are unreserved and the rest six are nominated by the governor from underrepresented communities of the Bodoland Territorial Areas District (BTAD).

III. The **third Bodo accord** signed on January 2020 among the Centre, the Assam government and Bodo organisations envisaged to **upgrade the Bodoland Territorial Council (BTC) to the Bodoland Territorial Region (BTR)**

    a. It provides for alteration of the area of BTAD and provisions for Bodos outside BTAD.

    b. For this, a commission appointed by the state government will examine and recommend if villages contiguous to BTAD and with a majority tribal population can be included into the BTR while those now in BTAD and with a majority non-tribal population can opt-out of the BTR.

    c. Subsequent to this alteration, the total number of Assembly seats will go up to 60, from the existing 40.

    d. The Government of Assam will notify Bodo language in Devanagari script as the associate official language in the state.

e. A Special Development Package of Rs. 1500 Crore would be given by the Centre to undertake specific projects for the development of Bodo areas.

8. Indira Rasoi Yojana

What's in news?

Over 50 lakh people have benefited from a new kitchen scheme, named Indira Rasoi Yojana, launched in **Rajasthan** for providing nutritious food to the poor and needy twice a day at concessional rates. The State government plans to spend ₹ 95 crore during its first year.

The previous BJP regime had also launched a subsidised meal scheme, Annapurna Rasoi Yojana which was scrapped later on by Congress Government

Similar schemes in other States :

a. Tamil Nadu - Amma Unavagam
b. Madhya Pradesh- Deendayal Canteen
c. Andhra Pradesh- NTR Anna Canteens
d. Delhi - Aam Aadmi canteens
e. Odisha - 'Aahar' scheme
f. Karnataka - Indira Canteens

9. Changes to J&K Panchayat Act

What's in News?

The Ministry of Home Affairs (MHA) has amended the **Jammu and Kashmir Panchayati Raj Act, 1989**

Amendments Made:

I. *DISTRICT DEVELOPMENT COUNCIL*
→ The amendment provided for setting up of District Development Councils in each district which will have directly elected members.
→ **This would mark the implementation of the entire 73rd Amendment Act in the union territory.**

→ The District Development Councils (DDCs) will comprise members directly elected from 14 territorial constituencies of the district as well as the members of the Legislative Assembly and the chairperson of all Block Development Councils of the district.
→ The other important provision is for reservation of SC and STs according to their population in a constituency and 33% for women
→ The Additional District Development Commissioner shall be the chief executive officer of the DDC.
→ But the MLAs will have no voting rights in the case of election or removal of the Chairman and vice-chairman only the directly elected members shall have the right to vote

II. *HALQA PANCHAYAT:*
   o While delimiting the constituencies of the District Development Council, **Halqa Panchayat shall be a unit**
   o Halqa Panchayat shall be required to get its accounts audited by a chartered accountant every year.
   o Halqa Panchayat shall pay remuneration to such staff out of its own resources

(Halqa means the area comprising a village or contiguous number of villages determined by the government).

III. *OTHERS:*
➢ The amendment also provides for reduction in the age of candidates for contesting elections for the posts of panches and sarpanches from 25 to 21 years.
➢ Section 10 of the 1989 Act on "remuneration to Sarpanch and Panches," was omitted

10. Farooq to lead Gupkar alliance

What's in News?

Seven mainstream parties of Jammu and Kashmir gave formal shape to their recently **cobbled alliance for the restoration of Article 370**, electing National Conference's Farooq Abdullah as its chairman of Peoples Alliance for Gupkar Declaration (PAGD) and PDP chief Mehbooba Mufti as vice-chairperson.

What is Peoples Alliance for Gupkar Declaration?

∞ On August 4, 2019, a day before the Union government announced the abrogation of the special status of Jammu and Kashmir, political parties in Kashmir, except the BJP, met at the residence of National Conference president Farooq Abdullah at Gupkar Road in Srinagar.

∞ They issued a joint statement later on defending Article 370 that gave special status to Jammu and Kashmir.

∞ Since then, the joint statement is known as the 'Gupkar Declaration'.

∞ The major political parties involved here are National Conference, Indian National Congress, Peoples Democratic Party, Communist Party of India (M), Jammu and Kashmir People's Conference and Awami National Conference

6. PM inaugurates three projects in Gujarat :

Prime Minister Narendra Modi inaugurated three projects in his home State of Gujarat — one each related to farmers' welfare, healthcare, and tourism development — via video-conferencing from New Delhi.

I.   **'Kisan Suryodaya Yojana'**
It aimed at providing **day-time electricity to farmers** in the State for irrigation and farming.

II.   The second project he inaugurated was a paediatric heart hospital at the U.N. Mehta Institute of Cardiology and Research Centre in Ahmedabad, developed with an investment of Rs. 470 crore by the State's Health Department.

III.   **Mount Girnar Ropeway**

o   The third project launched was a 2.3-km-long ropeway project on Mount Girnar in Junagadh city, a major pilgrimage site.

The ropeway project is being touted as the longest temple ropeway in Asia.

o   The ropeway has been developed by Usha Breco Limited at an investment of Rs. 130 crore.

11. Now, Outsiders can buy land in Jammu and Kashmir

What's in News?

Ministry of Home Affairs (MHA) announced several amendments to land laws for the Union Territory of Jammu Kashmir (J&K), including the **Jammu and Kashmir Development Act of 1970**, which till now entitled only permanent residents to purchase or sell property in the former State, and the **J&K Land Revenue Act, 1996**.

The MHA notification said the **"Union Territory of Jammu and Kashmir Reorganisation (Adaptation of Central Laws) Third Order, 2020** shall come into force with immediate effect and will encourage development in the UT of Jammu and Kashmir".

Background:

In August 2019, the special status granted to Jammu and Kashmir under Article 370 and Article 35A was revoked.

Section 96 of the J&K Reorganisation Act, 2019 empowers the MHA to adapt and modify any law by way of repeal or amendment before the expiration of one year from the appointed day of the Union Territory of J&K, which is October 31, 2019.

What are the changes?

i.   The MHA has amended sections of the J&K Land Revenue Act, 1996 and the J&K Development Act of 1970.

ii.   The 1996 Act pertains to management of agricultural land and the 1970 Act deals with zonal development plans determining

land use for public buildings, roads, housing recreation, industry, business, markets, schools, hospitals and public and private open spaces.

iii. According to the amendment to the Land Revenue Act, **anyone from any part of the country can now buy land in J&K, including agricultural land.**

iv. Though the amendments prohibit sale, transfer, mortgage and conversion of agricultural land to a non-agriculturist in the UT, it can still be allowed, "provided that the Government or an officer authorized by it in this behalf may grant permission to an agriculturist to alienate the land to a non-agriculturist by way of sale, gift, exchange or mortgage".

v. The government can allow the transfer of agricultural land to a public trust for charitable work, healthcare, education, industrial or commercial purposes.

vi. A **Board of Revenue headed by a Financial Commissioner** has been constituted and a fresh clause defining "agricultural land" as land which is used or is capable of being used for agriculture and allied activities, including fallow land, has been inserted.

vii. The **amendment deletes the "permanent resident" provision in the 1970 Act** that provided housing sites within the range of 25-30 square metres to permanent residents belonging to "economically weaker section" and "low income groups".

viii. Now, economically deprived people from all parts of the country will be eligible for such housing sites.

ix. A fresh provision has been added, by which the government, on the written request of an Army officer not below the rank of a Corps Commander, may declare an area as a "strategic area" for direct operational and training requirements of the armed forces.

x. It also **creates the Jammu and Kashmir Industrial Development Corporation** for establishing commercial centres and industries in the UT.

xi. The Corporation shall consist of twelve directors, four of whom could be nominated from the private sector with experience in "industry or trade or finance".

xii. The Corporation will have the power to acquire movable and immovable property, and to lease, sell, exchange or transfer any property held by it.

xiii. If the Corporation is unable to acquire land by an agreement, the government could order proceedings under the Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013 and acquire the land for "public purpose".

xiv. No court can take cognisance relating to property vested in the Corporation, except when the Corporation files a complaint.

xv. No legal suit can be filed against officials of the Corporation without a prior notice of two months and not later than six months from the date of complaint.

What amendments have been brought about in government land holdings?

a) The Jammu and Kashmir Land Grants Act, 1960, which regulates grant of government land on lease and earlier applied to urban areas of Jammu, Srinagar and towns, will now be extended to the entire UT.

b) The amendment omits the permanent resident clause to get government land on lease for "residential purposes".

c) The J&K Agrarian Reforms Act, 1976, which provided for transfer of land from big land owners to tillers, has been amended.

d) The erstwhile agrarian reforms Act stated that only up to two kanals (0.25 acre) of land could be held per family for residential purposes.

What about laws for Ladakh?

The main political parties in J&K have questioned the land laws, and say the Centre engaged with Ladakh and not J&K on land laws and job protection.

AP - 127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

The laws for Ladakh have not yet been notified as local leaders have demanded inclusion in the Sixth Schedule (tribal) of the Constitution to protect their land from "outsiders"

B. *INTERNATIONAL RELATIONS*

1. INDIA - MYANMAR

I. *India-Myanmar Renew Ties*
What's in News?

India and Myanmar carried out a comprehensive review of their multi-faceted relationship that is underpinned by deepening cooperation in areas of trade and investment, power, energy and healthcare

Highlights of the Strategic Relationship:

(i) Myanmar is one of India's strategic neighbours and shares a 1,640-km-long border with a number of northeastern states including militancy-hit Nagaland and Manipur.

(ii) India attaches to its partnership with Myanmar in accordance with its **'Neighborhood First' and 'Act East' policies**

Economic Relation:

(i) India has agreed to provide debt service relief under the **G-20 Debt Service Suspension Initiative** to further assist in mitigating the impact of COVID-19

(ii) Apart from this, India's assistance to Myanmar is around $ 1.4 billion.

(iii) The **Sittwe Port**, key to Kaladan Multimodal transport project will be operationalised by the first quarter of 2021 which is a joint Venture between India and Myanmar.

(iv) India will also extend support for the construction of **Bwaynu bridge** in Myanmar.

(v) Myanmar is the largest destination for India's investment in the oil and gas sector in Southeast Asia.

(vi) Both sides are working on the modalities of a training program for the **Myanmar**

Financial Intelligence Unit (FIU). India will continue to extend assistance and support to Myanmar in meeting its FATF related obligations.

Disaster Management:

(i) India has been restoring the earthquake damaged pagodas in Bagan, Myanmar.

(ii) India will also host Myanmar's representative at Information Fusion Centre for the Indian Ocean Region.

Education:

(i) MoUs on the **Myanmar Institute of Information Technology and the Advanced Centre for Agricultural Research and Education (ACARE)** have been extended.

(ii) India will also support **Yamethin Police Training Academy.**

(iii) Recently, India and Myanmar have entered into a **trilateral cooperation with Japan** on the **Rakhine State** under which we will create soft infrastructure for 15 schools.

Security:

India requested for an early conclusion of the Extradition Treaty, Mutual Legal Assistance Treaty on Civil and Commercial matters and Agreement on the Transfer of Sentenced Persons.

II. Myanmar's First Submarine
What's in News?

India to soon deliver Myanmar's first submarine

India will be delivering a kilo-class submarine, INS Sindhuvir, to the Myanmar Navy.

This will be the first submarine of the Myanmar Navy

The step is in line with India's SAGAR (Security and Growth for All in the Region) initiative and its commitment to building capacities in the neighbourhood

Defence Relations:

a. In Feb 2019, Armies of India and Myanmar conducted joint operation named Operation Sunrise to destroy the militant camps in Northeast border areas
b. Various MOU's related to Border Cooperation, Training the Staffs of Army, Navy and Airforce has been signed by both the countries
c. Army Exercise - IMBAX
d. Navy Exercise - Indo Myanmar Coordinated Patrol (IMCOR) / CORPAT

Security and Growth for All in the Region (SAGAR) is India's doctrine of maritime cooperation in the Indian Ocean region.

2. India, Japan finalise text of cybersecurity pact

What's in news?

India and Japan welcomed the finalisation of the text of a cybersecurity agreement that will promote cooperation in key areas such as **5G network and Artificial Intelligence.**

India-Japan Strategic Dialogue:

i. The 13th India-Japan Foreign Ministers' Strategic Dialogue was held recently
ii. The Cybersecurity Agreement promotes cooperation in capacity building, research and development, security and resilience in the areas of Critical Information Infrastructure, 5G, Internet of Things (IoT), Artificial Intelligence (AI), among others
iii. The Japanese companies prepare to roll out 5G services ahead of the Tokyo Olympics
iv. India also welcomed the **Supply Chain Resilience Initiative** between India, Japan, Australia and other likeminded countries
v. Japan agreed to be the lead partner in the connectivity pillar of the Indo-Pacific Oceans' Initiative (IPOI) and jointly take both countries' respective visions for the Indo-Pacific forward.

Indo-Pacific Oceans Initiative (IPOI):

IPOI was launched by the Prime Minister of India at the East Asia Summit in November 2019.

The focus areas would be on the following **seven pillars**

I. Maritime Security
II. Maritime Ecology
III. Maritime Resources
IV. Capacity Building and Resource Sharing
V. Disaster Risk Reduction and Management
VI. Science, Technology and Academic Cooperation
VII. Trade Connectivity and Maritime Transport

Other Aspects of India-Japan relations:

i. Japan India Association was set up in 1903 and it is the oldest international friendship body in Japan
ii. Special Strategic and Global Partnership and India Japan Investment Promotion Partnership started in 2014
iii. India Japan Comprehensive Economic Partnership Agreement (CEPA) came into force in August 2011
iv. Japanese Foreign Direct Investment (FDI) for Fiscal Year 2018-19 was US$ 2.96 billion .
v. Currently, Japan ranks third among the major investors in terms of cumulative investments since 2000
vi. Last year, India Japan signed a currency Swap Agreement
vii. Ahmedabad Mumbai High Speed Rail (Bullet Train Project), 12 industrial townships called Japan Industrial Townships, Delhi Metro Rail Projects and trilateral agreement between Sri Lanka, Japan and India to jointly develop the "East Container Terminal at the Colombo Port"

3.Delhi, Male ink $400-mn pact for connectivity

What's in news?

i.   Exim Bank of India and the Maldives's Ministry of Finance signed an agreement for $400 million **Line of Credit for Greater Male Connectivity Project (GMCP).**

ii. India has also pledged a grant of $ 100 million for the initiative.

iii. This will be the **largest civilian infrastructure project in Maldives**

iv. The GMCP, a 6.7 km bridge and causeway network connecting Male, with islands Villingili, Gulhifalhu and Thilafushi, is the second significant connectivity project in the Indian Ocean archipelago, coming two years after the China backed $200 million Sinamale Bridge, or the China-Maldives Friendship Bridge connecting airport island of Hulhule with the capital, was
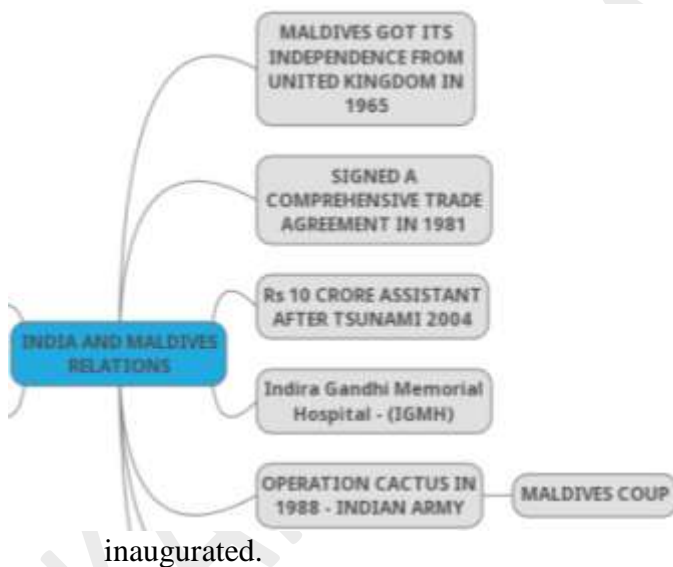
inaugurated.

India-Maldives Relations:

i.   Maldives is the first neighbouring country of India with which an air bubble is being operationalised after the COVID-19 crisis

ii. At present,India-assisted projects in the region include water and sewerage projects on 34 islands, reclamation projects for the Addu island, a port on Gulhifalhu, airport redevelopment at Hanimaadhoo, and a

hospital and a cricket stadium in Hulhumale.

iii. India and Maldives jointly inaugurated the Coastal Survelliance Radar System and Composite Training Center of the Maldives National Defence Forces

iv. India has also supported the Climate Change initiative of the Maldives by gifting 2 lakh LED lights for the street lighting of Male City

v.   India and Maldives regularly conduct **"EKUVERIN"** bilateral Military Exercise with main emphasis on counter insurgency and counter terrorism operations

vi. India and Maldives navy has earlier conducted Asymmetric Warfare Training **Exercise 'Ekatha'**

4.After Galwan clash, ICRC approaches India and China

*What's in news?*

After the incident at the Line of Actual Control in Galwan in Ladakh in June, in which 20 Indian soldiers were killed in a clash with Chinese soldiers, the International Committee for the Red Cross (ICRC) approached both the Indian and Chinese governments and asked that they observe the Geneva Conventions to which both countries are signatories

Where is Galwan Valley Situated?

i. The valley refers to the land that sits between steep mountains that buffet the Galwan River.

ii. The river has its source in Aksai Chin, on China's side of the LAC, and it flows from the east to Ladakh, where it meets the Shyok river on India's side of the LAC.

iii. The valley is strategically located between **Ladakh in the west and Aksai Chin in the east**, which is currently controlled by China as part of its Xinjiang Uyghur Autonomous Region.

iv. At its western end are the Shyok river and the Darbuk-Shyok-Daulet Beg Oldie (DSDBO) road.

v. Its eastern mouth lies not far from China's vital Xinjiang Tibet road, now called the G219 highway.

Where does the Line of Actual Control lie?

i. The **LAC lies east of the confluence of the Galwan and Shyok rivers** in the valley, up to which both India and China have been patrolling in recent years.

ii. After the June clash, however, China has claimed the entire valley lies on its side of the LAC.

iii. Since early May, China has been objecting to India's road construction activities at the western end of the valley, in the area between the Galwan-Shyok confluence and the LAC.

iv. Beijing is now saying the entire valley is on its side of the LAC, which pegs the line further west near the Shyok river.

v. India has rejected the claim as "exaggerated and untenable".

Contested valley
For the first time since 1962, the Galwan Valley has emerged as a site of dispute

MAP NOT TO SCALE
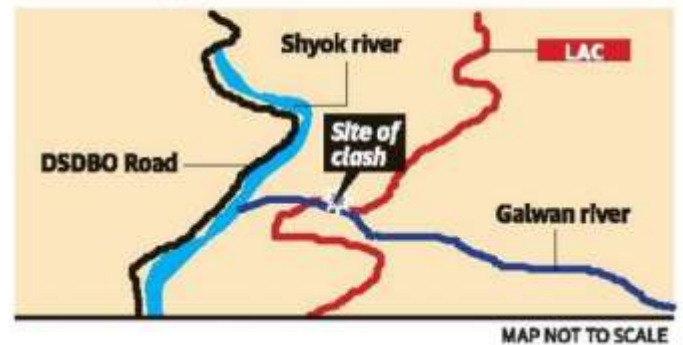
According to the **1993 Border Peace and Tranquility Agreement (BPTA),** India and China agreed to "strictly respect and observe the LAC between the two sides".

Clarifying the LAC has also been explicitly codified in the 1996 agreement on confidence-building measures and subsequent agreements.

China, however, has refused to exchange maps in the western sector to take this process forward.

Present Scenario:

India and China held the 7th round of Military Commander-Level talks to achieve de-escalation at the LAC.

However, there was no breakthrough yet again in de-escalating the tense troop confrontation in eastern Ladakh.

Till September, the two sides held 6 rounds of Corps Commander level talks, to discuss the process for de-escalation and disengagement along the LAC that involved reciprocal actions.

ICRC and Geneva Convention:

i. The International Committee of the Red Cross (ICRC) is a humanitarian organization based in **Geneva, Switzerland formed in 1863**

ii. The ICRC is part of the International Red Cross and Red Crescent Movement, along with the International Federation of Red Cross and Red Crescent Societies (IFRC) and 192 National Societies.

iii. It is the oldest and most honoured organization within the movement and one of the most widely recognized organizations in the world, having won **three Nobel Peace Prizes (in 1917, 1944, and 1963).**

iv. The work of the ICRC is based on the **Geneva Conventions of 1949**, their Additional Protocols, its Statutes – and those of the International Red Cross and Red Crescent Movement – and the resolutions of the International Conferences of the Red Cross and Red Crescent.

v. ICRC is an impartial, neutral and independent organization whose exclusively humanitarian mission is to protect the lives and dignity of victims of armed conflict and other situations of violence and to provide them with assistance.

vi. The ICRC also endeavours to prevent suffering by promoting and strengthening humanitarian law and universal humanitarian principles.

vii. Geneva Convention is a set of 4 treaties, they are

(1) the Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field,

(2) the Convention for the Amelioration of the Condition of the Wounded, Sick, and Shipwrecked Members of Armed Forces at Sea,

(3) the Convention Relative to the Treatment of Prisoners of War, and

(4) the Convention Relative to the Protection of Civilian Persons in Time of War.

viii. It also contains two additional protocols

a) Protocol I, extended protection under the Geneva and Hague conventions to persons involved in wars of "self-determination," which were redefined as international conflicts. The protocol also enabled the establishment of fact-finding commissions in cases of alleged breaches of the convention.

b) Protocol II, extended human rights protections to persons involved in severe civil conflicts, which had not been covered by the 1949 accords. It specifically prohibited collective punishment, torture, the taking of hostages, acts of terrorism, slavery, and "outrages on the personal dignity, in particular humiliating and degrading treatment, rape, enforced prostitution and any form of indecent assault.

5. China, Pakistan and Russia win seats on UN human rights council

What's in News?

Pakistan ,China, Russia and Cuba won seats on the UN Human Rights Council (UNHRC).

UNHRC:

i. The Human Rights Council is an inter-governmental body within the United Nations system responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and make recommendations on them

ii. It meets at the **UN Office at Geneva.**

iii. The Council is made up of 47 United Nations Member States which are elected by the UN General Assembly.

iv. The Council was created by the United Nations General Assembly on 15 March 2006

v. It meets 3 times a year to examine human rights violations worldwide.

vi. The Council's Membership is based on equitable geographical distribution between five regional groups:

a) African States: 13 seats

b) Asia-Pacific States: 13 seats

c) Latin American and Caribbean States: 8 seats
d) Western European and other States: 7 seats
e) Eastern European States: 6 seats

vii. In **2018, India was elected unopposed** to the UN Human Rights Council, as a candidate from the Asia-Pacific region, for a period of three years beginning January 1, 2019.

News Highlights:

i. **Pakistan ,China, Russia and Cuba** were among the 15 countries that won seats on the 47 member UN Human Rights Council (UNHRC)

ii. Their **three-year term** will start on January 1.

iii. Russia and Cuba won unopposed from their respective regions.

iv. Saudi Arabia has lost the vote

6. Australia to take part in Malabar naval exercise

What's in News?

The Ministry of Defence announced that **Australia** will join the **Malabar 2020 naval exercise, consisting of India, Japan and the U.S**

Background:

→ Malabar Exercise is a **multilateral naval exercise** that includes simulated war games and combat manoeuvres.
→ It started in 1992 as a bilateral exercise between the Indian and US navies.
→ Japan joined in 2015.
→ The last time Australian naval ships joined Malabar was back in 2007, when it was a five-nation exercise involving India, US, Japan, Singapore and Australia.
→ This year the exercise will be held in two phases, the first from Tuesday off the coast near Visakhapatnam, and the second in the Arabian Sea in mid-November

Why is it important in present Scenario?

Does India conduct any other naval exercises with these countries?

Over the last few months, the Indian Navy has conducted a number of Passage Exercises (PASSEX) with navies from Japan, Australia and the US. But those were basic exercises to increase operability between the navies, while Malabar involves simulated war games.

7. China opposes India-Taiwan trade ties

What's in News?

China has asked India to approach ties with Taiwan prudently and properly and said it would firmly oppose any official exchanges between New Delhi and Taipei.

India and Taiwan:

India and Taiwan in **2018 already signed a bilateral investment agreement.** India-Taiwan trade ties have expanded since, and Taiwanese firms are prominent investors in India, although India and Taiwan do not maintain formal diplomatic relations.

China insisted India to follow The 'One-China principle' stating that it is a universal consensus of the international community, including India.

What is One China Policy?

→ It is the diplomatic acknowledgement of China's position that there is only one Chinese government.
→ Under the policy, the international community recognises and has formal ties with China rather than the island of Taiwan, which China sees as a breakaway province to be reunified with the mainland one day.
→ Although Taiwan's government claims it is an independent country officially called the "Republic of China", any country that wants diplomatic relations with mainland China must break official ties with Taipei.
→ This has resulted in Taiwan's diplomatic isolation from the international community for some years
→ The policy can be traced back to 1949 and the end of the Chinese civil war.

→ The defeated Nationalists, also known as the Kuomintang, retreated to Taiwan and made it their seat of government while the victorious Communists began ruling the mainland as the People's Republic of China. Both sides said they represented all of China.

→ Since then China's ruling Communist Party has threatened to use force if Taiwan ever formally declares independence, but it has also pursued a softer diplomatic track with the island in recent years.

8. Pakistan to stay on FATF grey list till 2021

What's in news?

Pakistan will remain in FATF's 'grey' list till February 2021 as it has failed to fulfil six key obligations

Pakistan failed to fulfil six of the 27 mandates given to check terror funding

FATF:

→ The Financial Action Task Force (FATF) was established in **July 1989 by a Group of Seven (G-7) Summit in Paris**, initially to examine and develop measures to combat money laundering.

→ In October 2001, the FATF expanded its mandate to incorporate efforts to combat terrorist financing, in addition to money laundering.

→ In April 2012, it added efforts to counter the financing of proliferation of weapons of mass destruction

→ The FATF currently **comprises 37 member jurisdictions and 2 regional organisations** (European Commission and Gulf Cooperation Council)

→ The FATF **"grey list**" refers to countries that are **"monitored jurisdictions",** while the **"blacklist"** refers to those facing a **"call to action"** or severe banking strictures, sanctions and difficulties in accessing loans.

→ **The current FATF blacklist includes two countries: North Korea and Iran**.

9. INDIA AND US RELATIONS

What's in News?

India and the United States held the third edition of 2+2 dialogue in New Delhi and have signed most prominent defence cooperation

2+2 Dialogue:

A 'two plus two dialogue' is a term used for installation of a dialogue mechanism between two countries' **defence and external affairs ministries.**

Highlights of the Dialogue:

I.   BECA - Basic Exchange and Cooperation Agreement :

→ This agreement is related to **geo-spatial cooperation, which includes sharing classified information on maps and satellites for defence purposes.**

→ BECA is considered the last of the foundational agreements to be signed by India and the US.

→ The other Foundational Agreements signed by India are

o General Security of Military Information Agreement (GSOMIA) in 2002

o The Logistics Exchange Memorandum of Agreement (LEMOA) in 2016

o Communications Compatibility and Security Agreement (COMCASA) in 2018 – this is meant to provide a legal framework for the transfer of communication security equipment from the US

to India that would facilitate "interoperability" between their forces- and potentially with other militaries that use US-Origin systems for secured data links

→ BECA will help India access topographical and aeronautical data, and advanced products that will aid in navigation and targeting

→ This could be key to Air Force-to-Air Force cooperation between India and the US.

→ BECA will provide Indian military systems with a high-quality GPS to navigate missiles with real-time intelligence to precisely target the adversary.

→ Besides the sailing of ships, flying of aircraft, fighting of wars, and location of targets, geospatial intelligence is also critical to the response to natural disasters.

II. CHINESE ISSUE:

The 2+2 India-US bilateral dialogue for the first time in three years specifically mentioned the South China Sea (SCS), where China continues to state its authority over disputed waters. During the meeting, US highlighted the increasing aggression and destabilising activities by China.

III. OTHER PACTS

a. MoU for Technical Cooperation in Earth Observations and Earth Sciences.

b. Agreement for the Electronic Exchange of Customs Data between the Postal Operators.

c. Arrangement extending the duration of the Memorandum of Understanding between India and the USA.

d. Letter of Intent between the Central Council for Research in Ayurvedic Sciences, New Delhi and the Office of Cancer Complementary and Alternative Medicine, National Cancer Institute, Government of the USA for cooperation in the field of Ayurveda and Cancer Research.

10. **India, Central Asian republics call for destruction of terror 'safe havens'**

What's in News?

The Central Asian republics joined India in demanding destruction of "safe havens" of terrorism.

The second meeting of the India-Central Asia Dialogue jointly expressed support for the peace negotiations in Afghanistan, which is expected to usher in a new age for the war-torn country.

India-Central Asia Dialogue:

It is a ministerial-level dialogue between India and the Central Asian countries namely **Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan**.

In the first dialogue, India proposed setting up of **'India-Central Asia Development Group'** to take forward development partnership between India and Central Asian countries.

Key Takeaways from the Second India Central Asia Dialogue:

→ Additional $1 billion Line of Credit by India for the Central Asian countries. It is expected that the money will be spent for major infrastructural and connectivity projects

→ Efforts to modernise the infrastructure of the Chabahar port in Iran, which could become an important link in trade and transport communications between the markets of Central and South Asia

→ All countries called for the settlement of the Afghan conflict on the basis of

Afghan-led, Afghan-owned and Afghan-controlled peace process.

11. U.K. to partner for developing GIFT City, funding infra pipeline

→ The United Kingdom has entered into a strategic partnership to develop India's fledgling international financial services centre **GIFT City (Gujarat International Finance Tec-City),** and agreed to set up a new Fund of Funds to be managed by the State Bank of India (SBI) group in order to route the U.K.'s future capital investments into India.

→ India and the U.K. also signed off on a new infrastructure finance and policy partnership to help India execute its **National Infrastructure Pipeline** that envisages investments worth $1.4 trillion, at the 10th Economic and Financial Dialogue between the two countries.

→ **To help combat the pandemic**, the U.K. and India announced a **joint investment of £8 million for research** to understand and address the factors leading to the severity of the novel coronavirus in South Asian populations in the U.K. and in India.

Economic Relation of India and UK:

→ Bilateral trade between India and the U.K. stood at £24 billion in 2019.

→ India is now the second-largest project investment source for the U.K.

→ UK is the 4th largest inward investor in India after Mauritius, Singapore and Japan

→ India has become the Second largest international job creator with Indian Companies have created over 1,10,000 jobs in UK

→ India and UK has initiated a Green Growth Equity Fund (GGEF) under India's flagship National Investment and Infrastructure Fund, providing finance to India's renewable energy sector

C. *ECONOMY*

1.AMBEDKAR SOCIAL INNOVATION & INCUBATION MISSION UNDER VENTURE CAPITAL FUND FOR SCS(ASIIM)

What's in news?

Ministry of Social Justice and Empowerment launched the "Ambedkar Social Innovation and Incubation Mission (ASIIM) under **Venture Capital Fund for SCs** with a view to promoting innovation and enterprise among SC students studying in higher educational institutions.

Highlights of the Mission:

Objectives of the Mission

(i) To promote entrepreneurship among the SC Youth with special preference to Divyangs;

(ii) To support (1,000) innovative ideas till 2024 through a synergetic work with the Technology Business Incubators (TBIs) set up by Department of Science and Technology;

(iii) To support, promote, hand-hold the start-up ideas till they reach commercial stage by providing liberal equity support; and

(iv) To incentivise students with innovative mind-set to take to entrepreneurship with confidence.

Funding:

(i) They will be funded @ **Rs. 30 lakhs in 3 years as equity funding** so that they can translate their start-up ideas into commercial ventures.

(ii) Successful ventures would further qualify for venture funding of **up to Rs. 5 Crore from the Venture Capital Fund for SCs.**

Eligibility:

The following SC/Divyang youth would be eligible for support under ASIIM:

(i) Youth who have been identified by the TBIs (Technology Business Incubator) being promoted by Department of Science & Technology.

AP - 127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

(ii) Youth who are identified for incubation by reputed private TBIs.

(iii) Students who have been awarded under the Smart India Hackathon or Smart India Hardware Hackathon being conducted by Ministry of Education.

(iv) Innovative ideas focusing on the socio-economic development of the society identified in the TBIs.

(v) Start-ups nominated and supported by corporates through CSR (Corporate Social Responsibility) funds.

2.Cabinet nod for reforms in natural gas marketing

What's in news?

The Cabinet Committee on Economic Affairs approved 'natural gas marketing reforms' with an aim to standardise the procedure to discover the price of gas sold in the market.

Natural Gas Marketing Reforms:

i. Government has announced a **new e-bidding platform to promote market price discovery of natural gas** produced from fields across a number of contractual regimes, where producers already have pricing freedom.

ii. Notably, this move will not impact the pricing of the majority of gas currently produced in the country under the administered pricing mechanism.

iii. Experts say that 75-80 per cent of natural gas produced is priced by the government under the administered pricing mechanism*(which means the government controls its price).*

iv. The new policy has permitted affiliate companies to participate in the bidding process in view of the open, transparent and electronic bidding

v. This will facilitate and promote more competition in marketing of gas.

vi. This move would help boost incentives for gas producers to invest more in boosting natural gas production from new discoveries.

vii. The policy will also grant marketing freedom to Field Development Plans of those Blocks in which Production Sharing Contracts already provide pricing freedom,

viii. India currently produces 84 MMSCMD (million metric standard cubic meter per day) of natural gas and imports nearly the same amount.

ix. With the new reforms, 40 MMSCMD will come into local production.

x. The country's dependency on import of natural gas will reduce

3.Strategic Atal Tunnel inaugurated at Rohtang

What's in News?

9.2-km-long Atal tunnel at Rohtang was inaugurated by Prime Minister Narendra Modi

Atal Tunnel:

i. Earlier called the **Rohtang Tunnel**, this will **connect Manali in Himachal Pradesh with Leh, Ladakh, and Jammu Kashmir**.

ii. Former Prime Minister Atal Bihari Vajpayee laid the foundation stone for the approach road to the tunnel in 2002 but the project was delayed after his tenure and only 1.3 km of the road was built until 2013-14.

iii. This is the **world's longest highway tunnel at an altitude of above 10,000 feet** (3,000 metres).

iv. It is a 10.5 m-wide single tube, a bi-lane tunnel with a fireproof emergency tunnel built into the main tunnel itself.

v. The 10.5-m width includes a 1-metre footpath on both sides.

vi. Vehicles will travel at a maximum speed of 80 km per hour inside the tunnel. Up to 3,000 cars and 1,500 trucks are expected to use the tunnel every day.

vii. The tunnel also provides a telephone every 150 metres, fire hydrant every 60 metres, emergency exit every 500 metres, turning cavern every 2.2 km, air quality monitoring every one km, broadcasting

system and automatic incident detection system with CCTV cameras every 250 metres.

The strategic importance of the Atal Tunnel in Rohtang:

i.   Cutting through the Pir Panjal range, the tunnel will reduce the distance between Manali and Leh by 46 km.

ii. The Rohtang Pass, to which the tunnel provides an alternate, is located at a height of 13,050 feet, and a journey from Manali Valley to Lahaul and Spiti Valley, which normally takes around five hours to negotiate, would now be completed in little over ten minutes.

iii. While the tunnel will be a boon to the residents of the Lahaul and Spiti Valley who remain cut off from the rest of the country in winters for nearly six months due to heavy snowfall, the tunnel will provide almost all-weather connectivity to the troops stationed in Ladakh.

iv. However, for full all-weather connectivity, additional tunnels will have to be built on the Manali-Leh route namely tunnels at Baralacha pass , Lachung La and Tanglang La pass

v.   It will also accelerate troop mobility to strategic frontiers in Jammu and Kashmir and it came in a crucial time when there are tensions escalating in the Line of Actual Control (LAC)

vi. It is expected to boost tourism and winter sports in the region.

4.RBI keeps key rate unchanged, says GDP could contract 9.5% this fiscal.

What's in news?

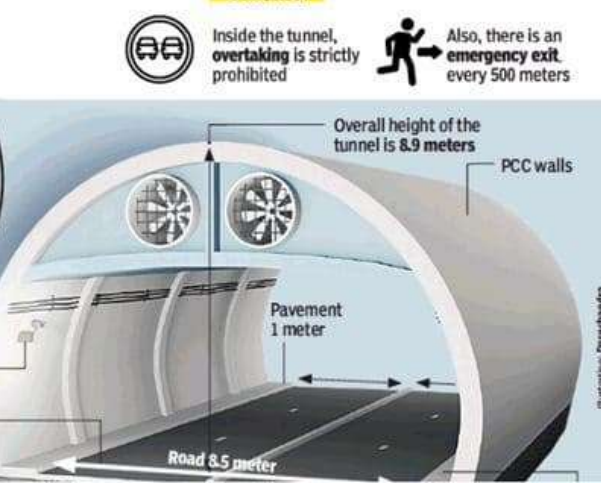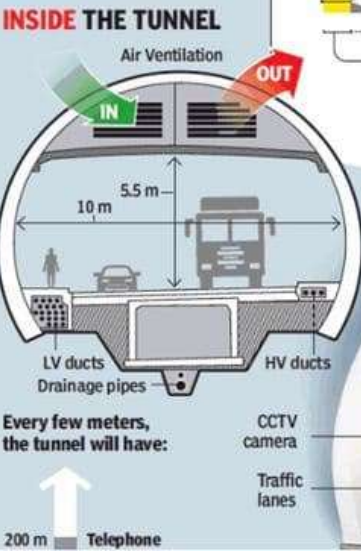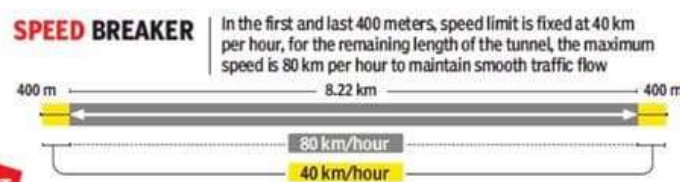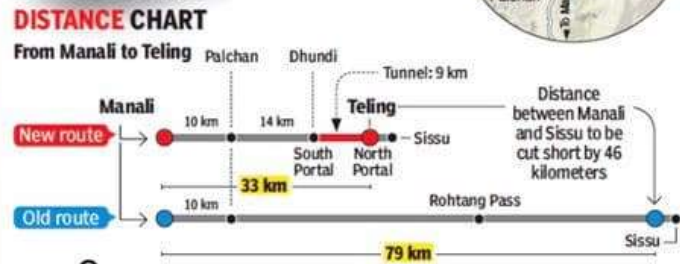The Reserve Bank of India (RBI) kept key policy rates unchanged

Monetary Policy:

i. Monetary Policy is the macro economic policy being laid down by the Central Bank towards the management of money supply and interest rate.

ii. The Reserve Bank of India (RBI) is vested with the responsibility of conducting monetary policy.

iii. This responsibility is explicitly mandated under the Reserve Bank of India Act, 1934

iv. The primary objective of monetary policy is to **maintain price stability while keeping in mind the objective of growth**.

a. Facilitating GDP Growth

b. To Control and Regulate Inflation

Monetary Policy Committee:

i. Section 45ZB of the amended RBI Act, 1934 also provides for an empowered six-member

---

BRINGING MANALI & LEH CLOSER

Infographic: Manish Choure | Text: Suresh Sharma

The **Atal Tunnel** in Rohtang, the world's longest highway tunnel above 10,000ft, will be inaugurated by PM Narendra Modi today. It took 10 years to build, but was under budget, and will cut 5 hours of travel

Shikar Beh — Sissu — Teling
Atal Tunnel — North Portal — Khoksar — Gramphu
Hanuman Tibba
South Portal
Dhundi
Palchan
Marhi — Rohtang Pass
Vashisht
Manali

Sissu — To Keylong
Atal Tunnel 9.02 km — End
Dhundi — Marhi
Start — Palchan — Rohtang Pass — To Manali

Rohtang, Baralacha, Lachulung-la and Taglang-la are the **high mountain passes** on the Manali-Leh highway and **remain inaccessible** in **winter** due to heavy snowfall

TRAVEL TIME

EARLIER
5 to 6 hours
Rohtang Pass to Sissu: **1.5 hours**
Manali to Rohtang Pass: **2 to 4 hours** (depending on traffic)

NOW
55 min to 1 hour
North portal to Sissu: Less than **10 minutes**
To traverse tunnel: Less than **10 minutes**
Manali to South portal of tunnel: **45 minutes**

INSIDE THE TUNNEL

Air Ventilation
IN — OUT
5.5 m
10 m
LV ducts
Drainage pipes
HV ducts
Every few meters, the tunnel will have:
CCTV camera
Traffic lanes
200 m — Telephone

DISTANCE CHART

From Manali to Teling
New route: Manali — 10 km — 14 km — Teling (South Portal, North Portal) — Sissu — Tunnel: 9 km — 33 km
Old route: Manali — 10 km — Rohtang Pass — Sissu — 79 km
Distance between Manali and Sissu to be cut short by 46 kilometers

From Manali to Leh
Via Atal Tunnel **428 KM** Via Rohtang Pass **474 KM**

69 km — Distance between Palchan and Gufa Hotel, near Sissu
14 km — Distance between Palchan and Dhundi
9 km — Length of tunnel, from south portal to north portal
200 m — Distance from the end of tunnel to Leh highway
46 km — The distance reduced between Manali and Keylong

SPEED BREAKER

In the first and last 400 meters, speed limit is fixed at 40 km per hour, for the remaining length of the tunnel, the maximum speed is 80 km per hour to maintain smooth traffic flow
400 m — 8.22 km — 400 m
80 km/hour
40 km/hour

Inside the tunnel, **overtaking** is strictly prohibited
Also, there is an **emergency exit** every 500 meters

Overall height of the tunnel is **8.9 meters**
PCC walls
Pavement 1 meter
Road 8.5 meter

Monetary Policy Committee (MPC) to be constituted by the Central Government

ii. Altogether, the MPC will have **six members** -
   a. the RBI Governor (Chairperson),
   b. the RBI Deputy Governor in charge of monetary policy,
   c. one official nominated by the RBI Board and
   d. the remaining three members would represent the Government of India

iii. The MPC takes decisions based on majority vote (by those who are present and voting).

iv. In case of a tie, **the RBI governor will have the second or casting vote**.

v. The **decision of the Committee would be binding on the RBI**.

vi. RBI is mandated to publish a Monetary Policy Report every six months, explaining the sources of inflation and the forecasts of inflation for the coming period of six to eighteen months.

Flexible Inflation Targeting:

i. In May 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.

ii. The amended RBI Act provides for the inflation target to be set by the Government of India, in consultation with the Reserve Bank, once every five years.

iii. Accordingly, the Central Government has notified **4 % Consumer Price Index (CPI)** inflation as the target for the period from **August 5, 2016 to March 31, 2021** with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent.

Highlights of the News:

i. With inflation rate holding above RBI's comfort level (CPI of 6% at the higher end), the **MPC has decided to keep the key policy rates (repo rate and reverse repo rate) unchanged.**

ii. The RBI Governor said that the Real GDP in 2021 is likely to decline by 9.5 per cent but speedy rebound is anticipated.

iii. The RBI expects inflation to ease over quarters Q3 and Q4 and hence favoured an accomodative policy stance.
(An accommodative credit policy stance means a central bank will cut rates to inject money into the financial system whenever needed.)

5. RBI offers on-tap TLTRO worth Rs 1 lakh cr, OMOs for state bonds to keep lid on yields

What's in News?

RBI has decided to conduct on-tap TLTRO with tenors of up to three years for a total amount of up to Rs 1 lakh crore at a floating rate linked to the policy repo rate.

TLTRO:

i. Long Term Repo Operation (LTRO) is a tool that lets banks borrow one to three-year funds from the central bank at the repo rate, by providing government securities with similar or higher tenure as collateral.

ii. In 'Targeted' LTRO (TLTRO), the central bank requires that the banks opting for funds under this option should specifically invest in certain targeted sectors/instruments.

OMO (Open Market Operations):

i. Buying and selling of government securities by the RBI in the open market is called open market operations.

ii. In India, the open market operations have been conducted in Central Government securities and State Government securities.

iii. When the RBI wants to increase the money supply in the economy, it purchases the government securities from the market and it sells government securities to suck out liquidity from the system.

iv. RBI carries out the OMO through commercial banks and does not directly deal with the public.

Highlights of the News:

i. The RBI has introduced **on-tap** *(means being available whenever there is a need)* **targeted long-term repo operations (TLTRO) of Rs 1 lakh** crore for providing additional liquidity to sectors with backward and forward linkages to growth.

ii. It has decided to conduct on-tap TLTRO with tenors of up to three years for a total amount of up to Rs 1 lakh crore at a floating rate linked to the policy repo rate.

iii. The **scheme will be available up to March 31, 2021,** with flexibility with regard to enhancement of the amount and period after a review of the response to the scheme.

iv. Liquidity availed by banks under the scheme has to be deployed in corporate bonds, commercial papers and NCDs issued by entities in specific sectors.

v. For the first time, the RBI has decided to conduct open market operations in **State development loans (SDLs)** as a special case during the current financial year

vi. This will help the small business to get more loans

vii. It makes it easier for the States to borrow

viii. It will improve the credit flow to the unserved and underserved sectors of the economy

6.RBI appeals to SC to allow NPA Classification

What's in news?

RBI appeals to SC to allow NPA Classification, saying a ban imposed to help borrowers in the COVID-19 pandemic could greatly harm the nation's financial system.

What is NPA?

A loan is considered NPA if it has not been serviced for one term (i.e., 90 days). This is known as **'90 day' overdue norm.**

For agriculture loans the period is

(i) Principal or interest remains overdue for 2 crop seasons for short duration crops

(ii) Principal or interest remains overdue for 1 crop season for long duration crops

NPAs were classified into three types:

(a) Sub-standard: remaining NPAs for less than or equal to 18 months;

(b) Doubtful: remaining NPAs for more than 18 months; and

(c) Loss assets: where the loss has been identified by the bank or

internal/external auditors or the RBI inspection, but the amount has not been written off.

Background of the issue:

i. To help borrowers weather pandemic-related stress, the RBI has let banks offer a moratorium on loan payments for up to six months and permitted a one-time restructuring of accounts.

ii. The RBI's measures ensured that accounts that were standard prior to the implementation of the nationwide lockdown in late March, would not be classified as NPAs if the borrowers made use of the moratorium, which allowed repayments to be delayed until the end of August but with the loans continuing to accrue interest

iii. The court granted the stay last month, responding to a plea to halt the NPA procedure

iv. The RBI responded by detailing the wide range of measures it has put in place to address stress in various sectors. It warned against any further leeway

v. Government told the court last week it would waive the compound interest on loans up to 20 million rupees ($270,000) under a separate COVID-19 support plan, in a move that will bring relief to millions of borrowers.

7. GST shortfall | Centre to borrow ₹ 1.1 lakh crore on behalf of States

What's in News ?

The Centre on 15 made a departure from its stance that States should undertake market borrowings to bridge the ₹ 1.1 lakh crore of GST compensation shortfall this year, stating that the Government of India will now undertake the required borrowings in tranches and pass it on to States as a 'back-to-back loan' that will reflect on their own books.

What is Compensation Cess under GST ?

i. Goods and Services Tax (GST), launched in India on 1 July, 2017 is a comprehensive indirect tax for the entire country.
ii. GST is charged at the time of supply and depends on the destination of consumption.
iii. For instance, if a good is manufactured in state A but consumed in state B, then the revenue generated through GST collection is credited to the state of consumption (state B) and not to the state of production (state A).
iv. Due to the consumption-based nature of GST, manufacturing states like Gujarat, Haryana, Karnataka, Maharashtra and Tamil Nadu feared a revenue loss.
v. Thus, **GST Compensation Cess or GST Cess** was introduced by the government to compensate for the possible revenue losses suffered by such manufacturing states. However, under existing rules, this compensation cess will be levied only for the **first 5 years of GST regime – from July 1st, 2017 to July 1st, 2022.**
vi. The **GST Compensation Cess Act, 2017** provides for levy of cess for the purpose of providing compensation to the states for loss of revenue arising due to implementation of GST for a period specified in the Act.
vii. As per the Act and the accounting procedure, the **entire cess collected during the year is required to be credited to a non-lapsable Fund** (the GST Compensation Cess Fund) which shall form part of the Public Account and shall be used for the purpose mentioned i.e., for providing compensation to states for loss of revenue.
viii. Under GST, a compensation cess is imposed on sin (goods which are considered harmful to society) and luxury goods like cigarettes, pan masala and certain categories of automobiles, over and above the topmost slab of 28%.
ix. For Example: Pan masala (Gutkha) containing tobacco attracts a compensation cess of 204%

Issues with Compensation Cess ?

→ As per the Central Government due to slowdown in the economy the revenue received through Compensation Cess has been considerably reduced, as a result states have not been paid their promised compensation since the last fiscal year.
→ While compensation cess collections this year are expected to be just around Rs 65,000 crore, compensation due to States is around Rs 3 lakh crore. Thus, the states are facing a Rs 2.35 lakh crore revenue shortfall
→ To address the shortfall in compensation cess, the Centre in August gave two borrowing options to the states:
    o **To borrow either Rs 1.10 lakh crore from a special window facilitated by the RBI**
    o **To borrow Rs 2.35 lakh crore from market**
→ 21 States has agreed to borrow Rs.1.1 crore from the market

What Now ?

➢ Under the Special Window, the estimated shortfall of ₹ 1.1 lakh cr

(assuming all States join) will be borrowed by Government of India in appropriate tranches. The amount so borrowed will be passed on to the States as a back-to-back loan in lieu of GST Compensation Cess releases

➢ This will not have any impact on the fiscal deficit of the Government of India (GOI).

➢ The amounts will be reflected as the capital receipts of the State Governments and as part of financing of its respective fiscal deficits

➢ So, instead of states taking small loans, one big loan will be taken by the Centre and distributed to states on the exact same terms. Thus, the interest rate at which the Centre will borrow, will be passed on to the states.

➢ After the current announcement, states earlier opposing the Centre have appreciated the move and said that they are willing to negotiate with the Centre

8. IMF DATA ON INDIA'S GDP:

What's in news ?

IMF has released the World Economic Outlook it has projected that Indian economy will **contract 10.3 per cent in 2020-21**, a deeper hit than the June estimate of 4.5 per cent contraction in the wake of the economic slump due to Covid-19 pandemic.

Global growth is projected to contract 4.4 per cent

Whereas, the **Reserve Bank of India has projected a 9.5 per cent contraction** for the Indian economy in 2020-21

India Vs. Bangladesh:

➢ India's economy has mostly been over 10 times the size of Bangladesh, and grown faster every year.

➢ India's per capita GDP, in nominal US dollar terms, is projected to be $1,876.53 in 2020, lower than $1,887.97 projected for Bangladesh.

(Per capita GDP is calculated by dividing the total GDP by the total population)

➢ Bangladesh's per capita GDP was only half of India's per capita GDP in 2007 and was around 70% of India's per capita GDP in 2014. However, this gap has closed quickly in the last few years

➢ Factors that resulted in decline in the gap even before Covid-19 are the faster growth of Bangladesh while India was in a narrow growth phase and during the 15-year period (2004-2016), India's population grew faster (around 21%) than Bangladesh's population (just under 18%)

➢ After Covid-19, While India's GDP is set to reduce by 10%, Bangladesh's GDP is expected to grow by almost 4%. In other words, while India is one of the worst affected economies, Bangladesh is one of the strong performers.

Advantages that Bangladesh have ?

Bangladesh growth is mainly due to Garment sector, the main contributor for Bangladesh's GDP are its Industrial sector followed by Service Sector, both the sector creates lot of job opportunities and dependency on agriculture is less

Whereas in India, Industrial Sector is struggling to grow, even though service sector growth is more the total employment opportunities is less and many people are directly and indirectly dependent upon agricultural sector

Bangladesh has improved in various social and political parameters in the last decade, this can be an evident from various indices like Global Gender Parity Index and Global Hunger Index where India is behind Bangladesh

Way Forward:

India's per capita GDP is expected to overtake Bangladesh's per capita GDP in 2021.

However, the trend is not expected to sustain for long, as Bangladesh is projected to match India's per capita GDP in 2024

Later in 2025, Bangladesh will again overtake India's per capita GDP

If IMF's forecast come true, India's GDP will only be ahead of Pakistan and Nepal in the region.

It means others in South Asia — Bhutan, Sri Lanka, Maldives and Bangladesh — will be ahead of India.

Reports released by IMF:

- **World Economic Outlook**

- **Global Financial Stability Report**

9. Govt. to widen manufacturing PLI plan

What's in News?

☆ The production-linked incentive (PLI) scheme for manufacturing investments will soon be **extended to eight more sectors**, and the government is close to finalising its policy for the strategic sale of public sector enterprises (PSEs)

☆ Unlike our other schemes, this is an outcome- and output-oriented scheme incentives will be paid only if the manufacturers make the goods

☆ This scheme will give cash incentives for five to seven years and all the sunrise and important sectors are proposed to be covered in this.
(A sunrise industry is one that is new or relatively new, is growing fast and is expected to become important in the future. Examples of sunrise industries include hydrogen fuel production, petrochemical industry, food processing industry etc)

10. CPI-IW base year revised to 2016

What's in News?

The **Labour and Employment Ministry revised the base year of the Consumer Price Index for Industrial Workers (CPI-IW) from 2001 to 2016** to reflect the changing consumption pattern, giving more weightage to spending on health, education, recreation and other miscellaneous expenses, while reducing the weight of food and beverages.

Consumer Price Index for Industrial Workers CPI(IW):

∞ This index is the oldest among the CPI indices as its dissemination started as early as in 1946.

∞ The history of compilation and maintenance of Consumer Price Index for Industrial workers owes its origin to the deteriorating economic condition of the workers post first world war which resulted in sharp increase in prices.

∞ As a consequence of rise in prices and cost of living, the provincial governments started compiling Consumer Price Index.

∞ Consumer Price Index Numbers for Industrial workers **measure a change over time in prices of a fixed basket of goods and services consumed by Industrial Workers**.

∞ The target group is an average working class family belonging to any of the seven sectors of the economy- factories, mines, plantation, motor transport, port, railways and electricity generation and distribution

∞ Apart from measuring inflation in retail prices, the **CPI-IW is used to regulate the dearness allowance (DA) of government staff and industrial workers, as well as to revise minimum wages in scheduled employments**

∞ The index has a time lag of one month and is released on the last working day of the month.

∞ After the release of the new base year, it is decided that the Bureau would work towards revising the index every five years.

∞ The reduction in weight to spending on food and beverages indicated an increase in disposable income

∞ The weight to food and beverage was reduced from 46.2% to 39%, while spending on housing increased from 15.2% to 17%.

11. Kerala govt. fixes base price for 16 agricultural produce

☆ Base price for 16 agricultural items, including vegetables, fruits, and tubers was fixed by the Kerala State government which is the **first-of-its-kind initiative in India**

☆ The scheme, designed to protect farmers from adverse price fluctuations, would come into effect from November 1.

☆ The base price would provide relief and support to both traditional farmers and those newly farming the land

☆ If the market price dipped below the base price of a vegetable, the produce would be procured at the base price and the money transferred to farmers' accounts.

☆ The produce would be graded on quality, and the base price fixed on that basis.

☆ There was also a provision to revise the base price regularly,

☆ Local self-government institutions would have an important role to play in the scheme as they would coordinate the procurement and distribution of vegetables

☆ The scheme would benefit a farmer with cultivation on a maximum of 15 acres in a season.

☆ They would have to register on the Agriculture Department's registration portal after insuring the crop to get the benefit of the base price.

☆ The registration would begin on November 1.

☆ Initially though, the registration would not be mandatory for farmers intending the procurement to happen through primary agricultural credit cooperative societies.

☆ The procured produce would be sold through the department's markets or the societies' marketing network.

☆ Any excess produce would be converted into value-added products.

☆ The scheme also envisaged setting up of supply chain process such as cold-storage facilities and refrigerated vehicles.

12. Fiscal deficit widens to Rs. 9.1 lakh crore

What's in News?

The fiscal deficit continued to soar in September to reach Rs. 9.1 lakh crore, or almost 115% of the budget target of Rs. 7.96 lakh crore for 2020-21, as per data from the Comptroller General of Accounts.

The revenue deficit hit 125.2% in the first half of the year, with revenue receipts continuing to suffer in view of lower economic activity due to COVID-19.

Deficits:

i. Revenue Deficit (RD) = Total Revenue Expenditure (RE) - Total Revenue Receipts (RR)

ii. Budget Deficit = Total Expenditure – Total Revenue

iii. **Fiscal deficit (FD) = Budget deficit + Government's market borrowings and liabilities**

iv. Primary Deficit (PD) = Fiscal deficit (FD) - Interest Payment (IP)

Fiscal Deficit Levels:

i. **The Fiscal Responsibility and Budget Management Act, 2003** provides that the Centre should take appropriate measures to limit the fiscal deficit **upto 3% of the GDP by 31st March, 2021.**

ii. The **NK Singh committee** (set up in 2016) recommended that the government should **target a fiscal deficit of 3% of the GDP in years up to March 31, 2020 cut it to 2.8% in 2020-21 and to 2.5% by 2023.**

iii. The government meets the fiscal deficit by borrowing money. In a way, the total borrowing requirements of the government

in a financial year is equal to the fiscal deficit in that year.

D. *ENVIRONMENT*

1.HUMAN-LEOPARD CONFLICT:

What's in News?

A study conducted across Karnataka indicates that the policy guidelines brought out by Government of India to mitigate human-leopard conflict and discourage translocation of the animal has had little impact on the ground.

The guidelines for human-leopard conflict management were brought out in April 2011 to reduce conflict with leopards, discourage their translocation, and suggest improved ways of handling emergency conflict situations.

The number of **leopards captured per month increased more than threefold** (from 1.5 to 4.6) after the **human-leopard policy guidelines** were brought out in **2011.**

Key Findings from the Report:

The number of leopards captured per month increased more than threefold (from 1.5 to 4.6) since 2011.

Similarly, there was a threefold increase in the number of leopards translocated per month (from 1 to 3.5).

Reasons in order of prominence that are attributed to capture and translocation of leopards are,

(i)   Livestock depredation

(ii)   Leopards rescued from snares and wells

(iii) Anxiety caused owing to leopard sightings in human habitations

(iv)   Leopards entering human dwellings

(v)   Human injuries

(vi)   Human deaths

Indian Leopards/ Common Leopard (Panthera pardus):

i.   The leopard is the smallest of the big cats, and is known for its black-spotted coat.
ii.   A nocturnal animal, the leopard hunts by night.
iii. It is classified as **Vulnerable** under the IUCN Red List
iv.   Listed in **Schedule I of the Indian Wildlife (Protection) Act, 1972** and included in **Appendix I of CITES**
v.   In India, the leopard is found in all forest types, from **tropical rainforests to temperate deciduous and alpine coniferous forests**. It is also found in dry scrubs and grasslands, the only exception being desert and the mangroves of Sundarbans.
vi.   It shares its territory with the tiger in 17 states. Its range stretches from the Indus river in the west, the Himalayas in the north, and all the way to the lower course of the Brahmaputra in the east.
vii. It's population is showing a declining trend.
viii. There a few leopard rescue centres in India, such as the **Manikdoh Leopard Rescue Centre in Junnar**,

Threats to Indian Leopard:

i.   The primary threats to Leopards are anthropogenic. Habitat fragmentation, reduced prey base and conflict with livestock and game farming
ii.   Leopards are also targets for trophy hunting.
iii. In Indo-Malaya and China, Leopards require better protection from illegal trade in skins and bones which are used for traditional ceremonies and medicinal purposes in Eastern Countries
iv.   Leopards also die due to accidents on roads passing through and around protected areas.

2.A proposed road tunnel beneath Western Ghats in Kerala

What's in News?

Kerala Chief Minister Pinarayi Vijayan launched a tunnel road project that would connect **Kozhikode with Wayanad.**

What is this Kozhikode-Wayanad tunnel road?

i.   The 7-km tunnel, being described as the third-longest in the country, is part of an 8-km road cutting through sensitive forests and hills of the Western Ghats.

ii. Its endpoints are at Maripuzha in Thiruvambady village panchayat (Kozhikode) and Kalladi in Meppadi panchayat (Wayanad).

iii. At present, Wayanad plateau is linked to the rest of Kerala via four roads, all with hilly sections, the longest being the 13-km Thamarassery Ghat Road along the Kozhikode-Mysuru NH 766.

Map not to scale; Google Earth image; Graphic: Ritesh Kumar

How will the road impact the ecology?

i.   The Forest Department has identified the proposed route as a highly sensitive patch comprising evergreen and semi-evergreen forests, marsh lands and shola tracts.

ii. This region is part of an elephant corridor spread between Wayanad and Nilgiri Hills in Tamil Nadu.

iii. Two major rivers, **Chaliyar and Kabani** that flows to Karnataka, originate from these hills in Wayanad.

iv. Eruvazhanjipuzha, a tributary of Chaliyar and the lifeline of settlements in Malappuram and Kozhikode, begins in the other side of the hills.

v.   The region, known for torrential rain during monsoon, has witnessed several landslides, including in 2019 at Kavalappura near Nilambur and at Puthumala, Meppadi in Wayanad.

So, will it not face a challenge in getting environmental clearance?

i.   Proponents of the project have been stressing that the tunnel will not destroy forest (trees).

ii. The MoEFCC guidelines state that the Forest Act would apply not only to surface area, but the entire underground area beneath the trees.

iii. For tunnel projects, conditions relating to underground mining would be applicable.

iv. As the proposed tunnel is 7 km long, it will require emergency exit points and air ventilation wells among other measures, which would impact the forest further.

Western Ghats:

i.   The Western Ghats, also known as Sahyadri is a mountain range that covers an area of 140,000 square kilometres (54,000 sq mi) in a stretch of 1,600 kilometres (990 mi) parallel to the western coast of the Indian peninsula, traversing the states of Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat.

ii. It is a UNESCO World Heritage Site and is one of the eight hot-spots of biological diversity in the world.

iii. It is sometimes called the Great Escarpment of India.

iv. For the preservation of Western Ghats two committees were set up namely - Madhav Gadgil Committee and Kasturi Rangan committee

v. Kasturirangan Committee had recommended that identified geographical areas falling in the six States of Kerala, Karnataka, Goa, Maharashtra, Gujarat and Tamil Nadu may be declared as Ecologically Sensitive Areas.

vi. The Committee recommended to bring just 37% of the Western Ghats under the Ecologically Sensitive Area (ESA) zones — down from the 64% suggested by the Gadgil Committee report.

3.EPCA directs Delhi, other States to implement GRAP

What's in news?

A Supreme Court-appointed pollution monitoring body has directed Delhi and neighbouring States to implement air pollution control measures under "very poor" and "severe" category air quality of the Graded Response Action Plan (GRAP), including a ban on the use of diesel generators, except for emergency activities.

EPCA:

i. EPCA is a **Supreme Court Mandated body** that was constituted with the objective of 'protecting and improving' the quality of the environment and 'controlling environmental pollution' in the National Capital Region.

ii. It was notified in **1998** by Environment Ministry under **Environment Protection Act, 1986.**

iii. It main functions include - To protect and improve quality of environment and prevent and control environmental pollution in National Capital Region and to enforce Graded Response Action Plan (GRAP) in NCR as per the pollution levels

What is GRAP?

i. Approved by the Supreme Court in 2016, the plan was formulated after several meetings that the **Environment Pollution (Prevention and Control) Authority** (EPCA) held with state government representatives and experts.

ii. **GRAP works only as an emergency measure.**

iii. As such, the plan does not include action by various state governments to be taken throughout the year to tackle industrial, vehicular and combustion emissions.

iv. The plan is incremental in nature — therefore, when the air quality moves from 'Poor' to 'Very Poor', the measures listed under both sections have to be followed.

v. If air quality reaches the 'Severe+' stage, the response under GRAP includes extreme measures such as shutting down schools and implementing the odd-even road-space rationing scheme

vi. The plan requires action and coordination among **13 different agencies in Delhi, Uttar Pradesh, Haryana and Rajasthan (NCR areas).** At the head of the table is the EPCA, mandated by the Supreme Court.

ACTIONS UNDER GRAP

Severe+ or Emergency

(PM 2.5 over 300 µg/cubic metre or PM10 over 500 µg/cu. m. for 48+ hours)

* Stop entry of trucks into Delhi (except essential commodities)

* Stop construction work

* Introduce odd/even scheme for private vehicles and minimise exemptions

* Task Force to decide any additional steps including shutting of schools

Severe

(PM 2.5 over 250 µg/cu. m. or PM10 over 430 µg/cu. m.)

* Close brick kilns, hot mix plants, stone crushers

* Maximise power generation from natural gas to reduce generation from coal

* Encourage public transport, with differential rates

* More frequent mechanised cleaning of road and sprinkling of water

Very Poor

(PM2.5 121-250 μg/cu. m. or PM10 351-430 μg/cu. m.)

* Stop use of diesel generator sets

* Enhance parking fee by 3-4 times

* Increase bus and Metro services

* Apartment owners to discourage burning fires in winter by providing electric heaters during winter

* Advisories to people with respiratory and cardiac conditions to restrict outdoor movement

Moderate to poor

(PM2.5 61-120 μg/cu. m. or PM10 101-350 μg/cu. m.)

* Heavy fines for garbage burning

* Close/enforce pollution control regulations in brick kilns and industries

* Mechanised sweeping on roads with heavy traffic and water sprinkling

* Strictly enforce ban on firecrackers

4.Blue Flag Certification

What's in News?

Eight Indian beaches have got the coveted 'Blue Flag' certification

What is Blue Flag Certification?

i.   According to the Ministry of Environment, Forest and Climate Change, a 'Blue Flag' beach is an eco-tourism model to provide tourists clean and hygienic bathing water, facilities/amenities, safe and healthy environment and sustainable development of the area.

ii. The certification is awarded by the **Foundation for Environmental Education that is headquartered in Copenhagen, Denmark** based on 33 stringent criteria in four major heads that is environmental education and information, bathing water quality, environment management and conservation and safety and services in the beaches.

iii. It started in **France in 1985** and has been implemented in Europe since 1987. The campaign spread outside Europe, to South Africa, in 2001.

iv. Blue Flag is awarded by an International Jury comprising of eminent members of United Nations Environment Programme (UNEP), World Tourism Organization (UNWTO), FEE, and IUCN

Benefits

Blue Flag certification helps local communities, businesses and governments in many ways:

a. Showcases the beach to the international community
b. Attracts sustainable tourism and improves incomes and livelihoods
c. Improves public understanding about nature and cultural features
d. Protects and conserves the unique natural and cultural assets
e. Promotes a healthier and safer environment

India and Blue Flag:

i.   The Ministry of Environment, Forest and Climate Change started a pilot project to develop the Indian beaches according to the Blue Flag standards in December 2017.
ii. Work began on developing the Indian beaches according to the Blue Flag certification standards, by the **Society for Integrated Coastal Management (SICOM), under a Unified Coastal Areas Management Programme**.
iii. In June 2019, the **Chandrabhaga beach on the Konark coast of Odisha became the first in Asia to be awarded the Blue Flag** certification on World Environment Day on June 5.
iv. India is now the first country in the world to receive the Blue Flag Certification for 8 beaches in a single attempt

v.   8 beaches that have been awarded the Blue Flag Certification are **Radhanagar in Andaman and Nicobar Islands, Golden beach in Odisha's Puri, Andhra Pradesh's Rushikonda, Kerala's Kappad, Diu's Ghoghla, Gujarat's Shivrajpur, and Karnataka's Kasarkod and Padubidri beaches**

5. SC orders eviction of resorts in Nilgiri's elephant corridor

What's in news?

The Supreme Court has directed eviction of 39 resorts in the Mudumalai reserve forest area falling in the elephant corridor.

Why was the direction given?

i.   A bench of Chief Justice S A Bobde and Justices Abdul Nazeer and Sanjiv Khanna upheld the Tamil Nadu goverment's order of January 1, 2010, identifying elephant corridors in the Sigur Plateau connecting the forests in the Western and Eastern Ghats, which sustain elephant populations and their genetic diversity

ii.   In 2010, the Tamil Nadu government issued an order, acquiring land, including privately owned, for elephant corridors to protect the migratory path of the animals through the Nilgiri biosphere reserve.

iii. Appeals filed by resorts/private land owners against the government order, as resorts were to be closed down once the corridor was notified.

iv.   In 2011, the Madras High Court declared that the Tamil Nadu government was fully empowered under the 'Project Elephant' of the Union government, as well as Article 51 A (g) of the Constitution, to notify the elephant corridor in the state's Nilgiris district.

(Article 51-A(g) of the Constitution says it was the duty of every citizen to protect and improve the natural environment, including wildlife.)

v.   It directed resort owners and other private land owners to "vacate and hand over vacant possessions of land" falling within the notified elephant corridor to the Nilgiris district collector.

vi.   SC described elephants as **"Keystone Species"**

Conservation Efforts:

The Indian elephant Elephas maximus occurs in the central and southern Western Ghats, North-east India, eastern India and northern India and in some parts of southern peninsular India.

It is included in **Schedule I of the Indian Wildlife (Protection) Act, 1972** and in **Appendix I of the Convention on International Trade in Endangered Species of Flora and Fauna (CITES).**

Project Elephant:

PROJECT ELEPHANT was launched by the Government of India in the year **1992 as a Centrally Sponsored Scheme** with following objectives:

1. To protect elephants, their habitat & corridors

2. To address issues of man-animal conflict

3. Welfare of captive elephants

The Project is being mainly implemented in 16 States / UTs , viz. Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Jharkhand, Karnataka, Kerala, Maharashtra, Meghalaya, Nagaland, Orissa, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal.

The Ministry of Environment, Forest and Climate Change provides the financial and technical support to major elephant range states in the country through Project Elephant.

There are four major Elephant corridor landscapes in the Western Ghats: (1) UttaraKannada, (2) Brahmagiri-Nilgiris, (3) Anamalai-Nelliyampathy-High Range, and (4) Periyar-Agasthyamalai,

The CITES Monitoring the Illegal Killing of Elephants (MIKE) Programme is a site-based system designed to monitor trends in the illegal

killing of elephants, build management capacity and provide information to help range States make appropriate management and enforcement decisions.

In Western Ghats, Mysore Elephant Reserve, Nilgiri Elephant Reserve and Wayanad Elephant Reserve are MIKE Sites

6. Bhubaneswar's Nandankanan zoo revives 'adopt-an-animal' scheme

What's in News?

The Nandankanan Zoological Park (NZP) in Bhubaneswar, which suffered a huge loss following its closure due to the COVID-19 pandemic, has revived its innovative 'Adopt-An-Animal' programme to mobilise resources for animals.

Nandankanan Zoo:

i.   It is located in Bhubaneswar, Odisha, adjacent to Chandaka-Dampara Wildlife Sanctuary, in the vicinity of Kanjia lake.

ii. It is the first zoo in India where endangered Ratel was born in captivity.

iii. It is the only zoo in India to have an Open-top Leopard Enclosure and it is the second largest heronry for Open Billied Storks in Odisha

iv. It is the only zoological park in India to become an institutional member of World Association of Zoos and Aquarium (WAZA).

v.   It is the only zoo in India after which an express train Puri-New Delhi express has been named as "Nandankanan Express".

vi. It is the first zoo in the World to breed White tiger and Melanistic tiger.

vii. It is the only conservation breeding centre of Indian Pangolins in the world.

viii. Conservation Breeding Centres for White backed vultures

7. One-man committee to monitor and prevent instances of stubble-burning

What's in News:

✓ A Supreme Court Bench led by Chief Justice of India (CJI) Sharad A. Bobde appointed **Justice Lokur** as a one-man committee to monitor and prevent instances of stubble-burning by farmers in the three States **(Punjab, Haryana and Uttar Pradesh).**

✓ Former Supreme Court judge, Justice Madan B. Lokur, helped by student volunteer forces deployed from the National Cadet Corps, the National Service Scheme and the Bharat Scouts and Guides, will protect Delhi-NCR (National Capital Region) from pollution caused by stubble-burning in the neighbouring Punjab, Haryana and Uttar Pradesh this winter.

✓ Student forces will patrol highways and fields in the three States and ensure that no fires are started in the fields.

✓ The Supreme Court's own Environment Pollution (Prevention and Control) Authority (EPCA) would consult with the committee on issues related to stubble-burning.

✓ The committee will file its status reports with the court at least every fortnight.

Why there is Stubble Burning?

→ Stubble (parali) burning is the act of setting fire to crop residue to remove them from the field to sow the next crop.

→ Stubble burning is, quite simply, the act of removing paddy crop residue from the field to sow wheat.

→ It's usually required in areas that use the 'combine harvesting' method which leaves crop residue behind.

→ Combines are machines that harvest, thresh i.e separate the grain, and also clean the separated grain, all at once.

→ The problem, however, is that the machine doesn't cut close enough to the ground, leaving stubble behind that the farmer has no use for.

→ There is pressure on the farmer to sow the next crop in time for it to achieve a full yield.

→ The quickest and cheapest solution, therefore, is to clear the field by burning the stubble

Environmental Issues of Stubble Burning:

i. A study estimates that crop residue burning released 149.24 million tonnes of carbon dioxide (CO_2), over 9 million tonnes of carbon monoxide (CO), 0.25 million tonnes of oxides of sulphur (SOX), 1.28 million tonnes of particulate matter and 0.07 million tonnes of black carbon. These directly contribute to environmental pollution, and are also responsible for the haze/ smog in Delhi and melting of Himalayan glaciers.

ii. The heat from burning paddy straw penetrates 1 centimetre into the soil, elevating the temperature to 33.8 to 42.2 degree Celsius. This kills the bacterial and fungal populations critical for a fertile soil.

iii. Burning of crop residue causes damage to other micro-organisms present in the upper layer of the soil as well as its organic quality. Due to the loss of 'friendly' pests, the wrath of 'enemy' pests has increased and as a result, crops are more prone to disease. The solubility capacity of the upper layers of soil have also been reduced.

How can we reduce Stubble Burning?

☆ In 2014, the Union government released the National Policy for Management of Crop Residue

☆ Turbo Happy Seeder (THS) is basically a machine mounted on a tractor that not only cuts and uproots the stubble, but can also drill wheat seeds on the soil that has just been cleared up. The straw is simultaneously thrown over the sown seeds to form a mulch cover.

☆ The THS can also be fitted with the Super-Straw Management System (S-SMS) that spreads the straw evenly.

☆ In the Economic Survey 2019-20, Government has mentioned that there is a reduction in Stubble Burning due to Government's initiative of 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi', Under this scheme, the agricultural machines and equipment for in-situ crop residue management such as super straw management system for combine harvesters, happy seeders, hydraulically reversible MB plough, paddy straw chopper, mulcher, rotary slasher, zero till seed drill and rotavators are provided with 50 percent subsidy to the individual farmers and 80 percent subsidy for establishment of custom hiring centres.

☆ 'Pusa Decomposer' capsule developed by IARI - It is essentially a fungi-based liquid solution that can soften hard stubble to the extent that it can be easily mixed with soil in the field to act as compost.

☆ Farmers can also manage crop residues effectively by employing agricultural machines like:
  o Rotavator (used for land preparation and incorporation of crop stubble in the soil)
  o Zero till seed drill (used for land preparations directly sowing of seeds in the previous crop stubble)
  o Baler (used for collection of straw and making bales of the paddy stubble)
  o Paddy Straw Chopper (cutting of paddy stubble for easily mixing with the soil)
  o Reaper Binder (used for harvesting paddy stubble and making into bundles)

☆ An innovative experiment has been undertaken by the Chhattisgarh government by setting up gauthans - Gauthans is a dedicated five-acre plot, held in common by each village, where all the unused parali (Stubble) is collected through parali daan (people's donations)

and is converted into organic fertiliser by mixing with cow dung and few natural enzymes.

☆ The NGT has categorically refused to burn the stubble. According to this order, a fine of Rs 2500 for burning stubble is on 2 to 5 acres of land and Rs 5 thousand for burning the straw on more than 5 acres of land.

☆ India is testing Swedish technology — torrefaction that can convert rice stubble into 'bio-coal'.

☆ The government has funded a pilot project at the National Agri-Food Biotechnology Institute in Mohali (Punjab) with a Swedish company to evaluate the feasibility of the technology.

8. Zoological Survey of India lists 62 species

i. A recent publication by the Zoological Survey of India (ZSI) reveals that India is home to 62 species of skinks and says about 57% of all the skinks found in India (33 species) are endemic.

ii. With long bodies, relatively small or no legs, no pronounced neck and glossy scales, skinks are common reptiles around homes, garages, and open spaces such as sparks and school playgrounds, and around lakes.

iii. Although they are common reptiles and have a prominent role in maintaining ecosystems, not much is known about their breeding habits, and ecology because identification of the species can be confusing.

iv. The publication is a result of four years of work and study of over 4,000 specimens in all 16 regional centres of ZSI and also at the Bombay Natural History Society, Indian Institute of Science, Wildlife Institute of India, and the Salim Ali Centre for Ornithology & Natural History.

v. The book also gives a phylogenetic and bio-geographical analysis of distribution of these species in all the 11 bio-geographic zones of India

vi. The Western Ghats are home to 24 species of which 18 are endemic to the region. The Deccan Peninsular region is home to 19 species of which 13 are endemic.

vii. There are records of 14 skink species from the northeast of which two species are endemic.

viii. Of the 16 genera of skinks found in India, four genera are endemic.

ix. Sepsophis (with one species)and Barkudia (with two species) are limbless skinks found in the hills and coastal plains of the eastern coast.

x. Barkudia insularisis believed to be found only in the Barkud Island in Chilka lake in Odisha. Barkudia melanosticta is endemic to Visakhapatnam.

xi. Sepsophis punctatus is endemic to the northern part of Eastern Ghats. Five species of Kaestlea (blue-tailed ground skinks) are endemic to the Western Ghats and four species of Ristella (Cat skinks) also endemic to the southern part of Western Ghats
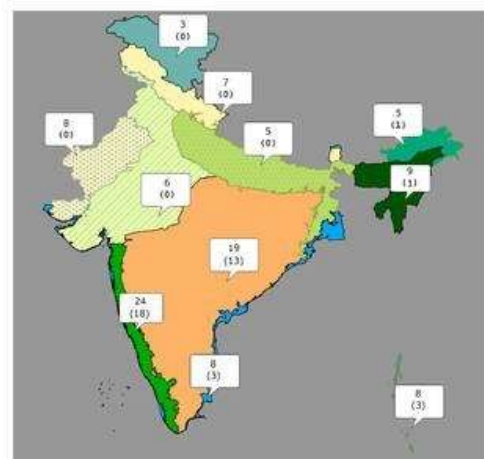
SKINK SPECIES DISTRIBUTION IN DIFFERENT BIOGEOGRAPHIC ZONES OF INDIA (ENDEMIC SPECIES IN BRACKETS)

9. Kaleshwaram eco-clearance violates law: NGT

What's in News?

→ The National Green Tribunal (NGT) has held that environmental clearance (EC) to the Kaleshwaram Lift Irrigation Project (KLIP) was granted ex post facto , after completion of substantial work, by the Ministry of Environment, Forests and Climate Change (MoEF&CC) "in violation of law".

→ It has also observed that accountability needs to be fixed and remedial measures taken.

→ It has directed the Telangana government to halt work on the KLIP except the drinking water supply component

→ For that purpose, it has directed the MoEF&CC to constitute a seven-member expert committee preferably out of expert appraisal committee (EAC) members with relevant sectorial expertise to go into the matter in light of the observations in the present case.

Kaleshwaram Lift Irrigation Project (KLIP):

☆ The Kaleshwaram Lift Irrigation Project (KLIP) is a multi-purpose irrigation project on the **Godavari River in Kaleshwaram,Telangana**

☆ In 2007, when Andhra Pradesh was not divided Pranahitha-Chevella Lift Irrigation Scheme taken up to utilise the water of Pranhita tributary of Godavari river.

☆ After the formation of Telangana in 2014, the present government redesigned the project.

☆ It has the **longest tunnel to carry water in Asia** - 81 km between the Yellampally barrage and the Mallannasagar reservoir.
(Lift irrigation is a method of irrigation in which water is not transported by natural flow, (as in gravity-fed canal) but is lifted with pumps and other external sources)

10. Air pollution now biggest health risk in India, says report

What's in News?

US Based Health Effects Institute has launched the State of Global Air 2020 report, according to which air pollution was now the largest risk factor for death among all health risks

Highlights of the Report:

i. Long-term exposure to outdoor and household air pollution contributed to over 1.67 million annual deaths from stroke, heart attack, diabetes, lung cancer, chronic lung diseases and neonatal diseases in India in 2019

ii. Outdoor and household particulate matter pollution also contributed to the deaths of more than 1,16,000 Indian infants in their first month of life last year.

iii. More than half of these deaths were associated with outdoor PM2.5 and others were linked to use of solid fuels such as charcoal, wood, and animal dung for cooking.

iv. For the youngest infants, most deaths were related to complications from low birth weight and preterm birth.

v. India faced the highest per capita pollution exposure — or 83.2 μg/cubic metre — in the world, followed by Nepal at 83.1 μg/cubic metre and Niger at 80.1,

vi. The government has claimed that average pollution levels in India are declining over the past three years but these have been marginal, particularly in the Indo-Gangetic plains which see extremely high particulate matter pollution especially during winter.

vii. After a decline in pollution due to the nationwide lockdown in late March and the months-long process of reopening, pollution levels are again rising and air quality has dipped to 'very poor' category in several cities.

viii. COVID-19, a disease for which people with heart and lung disease are particularly

at risk of infection and death, has claimed more than 1,10,000 lives in India.

ix. Although the full links between air pollution and COVID-19 are not yet known, there is clear evidence linking air pollution and increased heart and lung disease, creating a growing concern that exposures to high levels of air pollution during winter months in South Asian countries and East Asia could worsen the effects of COVID-19.

Why does air pollution rise in October each year in Delhi ?

☆ October usually marks the withdrawal of monsoons in Northwest India.

☆ During monsoons, the prevalent direction of wind is easterly.

☆ These winds, which travel from over the Bay of Bengal, carry moisture and bring rains to this part of the country.

☆ Once monsoon withdraws, the predominant direction of winds changes to north westerly.

☆ During summers, too, the direction of wind is north westerly and storms carrying dust from Rajasthan and sometimes Pakistan and Afghanistan.

☆ According to a peer reviewed study conducted by scientists at the National Physical Laboratory, 72 per cent of Delhi's wind in winters comes from the northwest, while the remaining 28 per cent comes from the Indo-Gangetic plains.

☆ In 2017, a storm that originated in Iraq, Saudi Arabia and Kuwait led to a drastic dip in Delhi's air quality in a couple of days.

☆ Along with the change in wind direction, the dip in temperatures is also behind the increased pollution levels.

☆ As temperature dips, the inversion height — which is the layer beyond which pollutants cannot disperse into the upper layer of the atmosphere – is lowered.

☆ The concentration of pollutants in the air increases when this happens.

☆ Also, high-speed winds are very effective at dispersing pollutants, but winters bring a dip in wind speed over all as compared to in summers.

☆ The combination of these meteorological factors makes the region prone to pollution

☆ When factors such as farm fires and dust storms are added to the already high base pollution levels in Delhi , air quality dips further.

11. Outlook bleak for Himalayan brown bears

What's in News?

→ A recent study carried out in the western Himalayas by scientists of Zoological Survey of India (ZSI) predicted a massive habitat decline of about 73.38% to 72.87% of the Himalayan brown bear (Ursus arctos isabellinus) by the year 2050.

→ It has predicted a significant reduction in suitable habitat and biological corridors of the species due to climate change, prompting scientists to suggest an adaptive spatial planning of protected area network in the western Himalayas for conserving the species.

→ These losses in habitat will also result in loss of habitats from 13 protected areas (PAs), and eight of them will become completely uninhabitable by the year 2050, followed by loss of connectivity in the majority of PAs

Himalayan Brown Bear:

→ The Himalayan brown bear is one of the largest carnivores in the highlands of Himalayas.

→ The Himalayan Brown Bears are said to be present in North-western and central Himalaya, including Pakistan, India, Nepal, the Tibetan Autonomous Region of China and Bhutan.

→ Populations are present in the Great **Himalayan National Park (Himachal Pradesh) and the Deosai National Park, Pakistan,** it is also present in south and

western Ladakh, in the upper Suru and Zanskar valleys.

→ The Himalayan brown bear is primarily a plant-eater with 90% of its food consisting of fruits, figs, leaves, and grass and is also a omnivore

→ It is locally also called 'spang drenmo' meaning 'grass-bear' or a vegetarian bear

→ It is **Endangered** in the IUCN Red List Category

→ In India they are classified under the **Schedule I of Wildlife (Protection) Act, 1972** and also it is classified under **Appendix I of CITES**

12. Centre sets up commission to tackle NCR pollution

What's in News?

The central government has notified an Ordinance to constitute the **Commission for Air Quality Management in the National Capital Region (NCR) and Adjoining Areas.**

This has **dissolved the 22-year-old Environmental Pollution (Prevention and Control) Authority** that has so far addressed air pollution in Delhi

New Commission Powers and Jurisdictions:

→ The jurisdiction of the **new Commission extends to states of Delhi Punjab, Rajasthan, Haryana and Uttar Pradesh**.

→ The **18-member Commission** will have at least have six permanent members and will be headed by a former or incumbent Secretary to the Central government, or a Chief Secretary to a State government.

→ Three representatives of NGOs with experience in combating air pollution will also be included in the panel.

→ It will have members from Ministries as well as representatives from States.

→ It will have three sub-committees — on 'monitoring and identification', 'safeguarding and enforcement' and 'research and development' — to tackle air pollution

→ The Central Pollution Control Board and its State branches have the powers to implement provisions of the Environment (Protection) Act for air, water and land pollution.

→ In case of dispute or a clash of jurisdictions, the commission's writ will prevail specific to matters concerning air pollution.

→ The Government may empower the commission to constitute special investigative groups for stricter implementation

E. SOCIAL ISSUES

1.CRIME IN INDIA 2019 REPORT: NCRB

What's in news?

The National Crime Records Bureau (NCRB) has released the annual Crime in India 2019 report.

Highlights of the Report:

(i) As per the NCRB report, crime rate registered per lakh population went up marginally to 385.5 in 2019 as compared to 383.5 in 2018

(ii) **Maharashtra accounts for 10.6 per cent of all crimes registered across the country** and tops in gangrape, attacks against senior citizens, narcotics consumption, debit/credit card fraud and stalking cases

Crimes against women and Scheduled Castes / Scheduled Tribes:

(iii) Crimes against women increased 7.3 per cent from 2018 to 2019, and crimes against Scheduled Castes also went up 7.3 per cent in the same period

(iv) **Uttar Pradesh** reported the highest number of cases in both these categories.

(v) But Assam reported the highest rate of crimes against women (per lakh population), while Rajasthan had the highest rate of crimes against Scheduled Castes

(vi) Majority of cases under crime against women under IPC were registered under 'cruelty by husband or his relatives' (30.9%), followed by 'assault on women with intent to outrage her modesty' (21.8%), 'kidnapping & abduction of women' (17.9%) and 'rape' (7.9%)

(vii)   UP also had the highest number of crimes against girl children under the POCSO Act and also highest number of dowry cases

(viii)   Kolkata has recorded the least number of sexual assault cases on women

(ix) Like Kolkata, Tamil Nadu's Coimbatore, too, has not reported any sexual harassment case

(x) Crime against Scheduled Tribes (STs) saw an increase of over 26% in year 2019 compared to 2018.

(xi) Madhya Pradesh recorded the highest number of cases against STs followed by Rajasthan, and Odisha.

(xii)   The highest number of incidents of rape of tribal women- 358 was registered in Madhya Pradesh, followed by 180 incidents in Chattisgarh and 114 in Maharashtra.

Custodial Deaths:

Gujarat accounted for the highest number of police personnel arrested in custodial death cases in the country and the second highest number of custodial deaths in 2019, one rank below Tamil Nadu

Sedition Cases:

(i) Cases of sedition and under the stringent UAPA showed a rise in 2019, but only 3 per cent of the sedition cases resulted in convictions.

(ii) 'Offences Against the State', which includes charges under the UAPA and Official Secrets Act (OSA) — saw a steep fall of 11.3 per cent from the year before.

(iii) UP saw 2,017 of the 7,569 cases (27.8 per cent), a drop from 2,503 last year. Tamil Nadu ranked next, with 1,311 cases (17.3

per cent), followed by Haryana with 572 cases.

Cybercrimes

(i) Cybercrimes saw a massive rise of 63.5% in 2019.

(ii) In 2019, 60.4% of cybercrime cases registered were for the motive of fraud, followed by sexual exploitation, with 5.1% cases and causing disrepute with 4.2% cases.

(iii) **Karnataka** reported the highest cybercrimes followed by Uttar Pradesh and Maharashtra.

Counterfeit of Currency:

(i) The highest number of all counterfeit notes seized last year was in the denomination of ₹ 2,000

(ii) The highest number of seizures were from Karnataka, Gujarat and West Bengal

Other Reports by NCRB:

According to **'Finger Prints in India 2019'** report recently released by NCRB under the Union Home Ministry, the Finger Print Bureau under DFS Gujarat topped the list followed by Tamil Nadu and Delhi

NCRB:

(i) NCRB was set-up in **1986** to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators and it operates under the **Ministry of Home Affairs**

(ii) It was set up based on the recommendation of the Task force,1985 and National Police Commission,1977 by merging the Directorate of Coordination and Police Computer (DCPC), Inter State Criminals Data Branch of CBI and Central Finger Print Bureau of CBI.

(iii) NCRB brings out the annual comprehensive statistics of crime across the country ('Crime in India' report), which it was publishing from 1953, the other two reports published by NCRB is

Accidental Deaths & Suicides in India and Prison Statistics India.

2.Cabinet nod for World Bank aided STARS Project, national assessment Centre

What's in news?

The Cabinet on approved the implementation of a project called Strengthening Teaching-Learning and Results for States (STARS) for improving quality of education in six States.

Strengthening Teaching-Learning and Results for States (STARS):

i. The STARS project would be implemented as a new **Centrally Sponsored Scheme under Department of School Education and Literacy, Ministry of Education**
ii. The total project cost is pegged at ₹ 5,718 crore with the financial support of World Bank amounting to $500 million (approximately ₹ 3,700 crore)
iii. The project covers **Himachal Pradesh, Rajasthan, Maharashtra, Madhya Pradesh, Kerala and Odisha** in **improving basic reading and math skills of students and undertake assessment reforms**
iv. Besides this project, it is also envisaged to implement a similar **ADB funded project in Gujarat, Tamil Nadu, Uttarakhand, Jharkhand and Assam**
v. The Ministry of Education (MoE) will establish **PARAKH as an independent and autonomous institution under Department of School Education and Literacy**, which is an assessment centre that will set standards for the 60-odd examination boards in the country through the STARS (Strengthening Teaching-Learning and Results for States) project.
vi. PARAKH is among the assessment reforms proposed in the NEP that collectively aim to move schools boards away from high-stakes examinations and towards holistic assessment.

vii. The programme covers many key areas: access and retention; Right to Education entitlements; quality interventions; teacher education; gender and equity; inclusive education; entitlements (uniforms, textbooks, scholarships, etc); upgradation of learning environment
viii. India's participation in the 2022 cycle of the Programme for International Student Assessment (PISA) survey will also be funded by this project

PISA:

i. PISA, introduced in **2000 by the Organisation for Economic Co-operation and Development (OECD),** tests the learning levels of 15-year-old children in reading, mathematics, and science.
ii. The test is conducted every three years. India stayed away from PISA in 2012 and 2015 on account of its dismal performance in 2009, when it was placed 72nd among the 74 participating countries.
iii. The government decided to end the boycott in 2019.

3. 99% of Indian Cities declared ODF

What's in News?

As per the latest survey figures, 99 per cent of the Indian cities under urban local bodies have become open defecation free (ODF). However, the survey of the urban bodies could not be done in time in West Bengal due to the pandemic.

Latest Survey and ODF:

i. The **Ministry of Housing and Urban Affairs (MoHUA),** Government of India takes up the Swachh Survekshan in urban areas and the Ministry of Drinking Water and Sanitation in rural areas.
ii. **Quality Council of India is visiting Urban Legislative Bodies (ULBs) as a third party for ODF inspection.**
iii. ODF+ and ODF++ were launched in August 2018 to further scale up and sustain the work undertaken by the cities

after achieving the ODF status under Phase I of the Swachh Bharat Mission — Urban (SBM-Urban)

iv. While ODF+ focuses on toilets with water, maintenance and hygiene, ODF++ focuses on toilets with sludge and septage management

v. Water + Protocol is designed to ensure that no untreated wastewater is discharged into the open environment or water bodies.

vi. From a position of zero ODF states and cities in 2014, 99 per cent of our cities have today become ODF.

vii. Open defecation, however, has been a problem mainly in rural areas, and India has claimed that as of last year, all 5,99,963 villages of the country have attained ODF status by construction of the required toilets under Swachh Bharat Mission-Rural scheme

4. Top 5 risk factors for deaths in 2019 in India

What's in News?

✓ **Global Burden of Disease (GBD) study was published in The Lancet recently**

✓ Researchers have analysed 286 causes of death, 369 diseases and injuries, and 87 risk factors in 204 countries and the latest estimates indicate how vulnerable countries were to the Covid-19.

✓ In 2019, the top **five risk factors for death in India were air pollution** (contributing to an estimated 1.67 million deaths), **high blood pressure** (1.47 million), **tobacco use** (1.23 million), **poor diet** (1.18 million), and **high blood sugar** (1.12 million).

✓ The trend in most countries points to a decline in infectious diseases and a rise in chronic diseases.

Global Burden of Disease (GBD) Study 2019 findings :

IN INDIA:

→ The leading risk factor for total health loss in India in 2019 was child and maternal malnutrition, while the second leading risk factor was air pollution.

→ According to the report, 58 per cent of the total disease burden is due to non-communicable diseases (NCD) — up from 29 per cent in 1990 — while premature deaths due to NCDs have more than doubled from 22 to 50 per cent.

→ The leading non-communicable cause of death in India in 2019 was ischemic heart disease with 1.52 million deaths, followed by chronic obstructive pulmonary disease (8,98,000), stroke (6,99,000), diabetes (2,73,000) and cirrhosis and other chronic liver diseases (2,70,000).

→ Since 1990, India has made substantial gains in health, but child and maternal malnutrition is still the top risk factor for illness and death in India, contributing to more than 20 per cent of the total disease burden in several states in northern India (Bihar and UP).

→ India has gained more than a decade of life expectancy since 1990, rising from 59.6 years to 70.8 years in 2019.

→ However, there are wide inequalities between states, ranging from 77.3 years in Kerala to 66.9 years in Uttar Pradesh

IN SOUTH ASIA:

Bhutan, Nepal, and Bangladesh have seen the proportion of total health loss (DALYs) caused by the rise of NCDs by more than 150 per cent since 1990. NCDs now contribute to more than half of all DALYs in the region that was dominated by infectious, maternal, neonatal, and nutritional diseases 30 years ago.

Global Burden of Disease (GBD) Study :

☆ The Global Burden of Disease Study (GBD) is a comprehensive regional and global research program of disease burden that assesses mortality and disability from major diseases, injuries, and risk factors.

☆ GBD is a collaboration of over 3600 researchers from 145 countries.

☆ **GBD is based out of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington and funded by the Bill and Melinda Gates Foundation**

☆ In December 2018, the World Health Organisation and the IHME announced a formal partnership to collaborate to produce a single set of global health estimates to strengthen the validity of the GBD and improve its policy relevance and

For the 2020 GHI report, data from 2015-19 was used and 132 countries were assessed . Out of these, there was sufficient data to rank 107 countries.

GHI scores are based on four indicators:

1. **UNDERNOURISHMENT**: the share of the population that is undernourished (that is, whose caloric intake is insufficient);

2. **CHILD WASTING**: the share of children under the age of five who are wasted (that

DALY
Disability Adjusted Life Year is a measure of overall disease burden, expressed as the cumulative number of years lost due to ill-health, disability or early death

= **YLD** Years Lived with Disability + **YLL** Years of Life Lost

Healthy life   Disease or Disability   Early death   Expected life years

use.

☆ In partnership with IHME, The Lancet journal has published global health estimates from the GBD study since 2010.

DISABILITY ADJUSTED LIFE YEAR (DALY):

The disability-adjusted life year (DALY) is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death. It was developed in the 1990s as a way of comparing the overall health and life expectancy of different countries.

It was developed in the 1990s as a way of comparing the overall health and life expectancy of different countries.

5. India fares poorly in hunger index

What's in News?

The **Global Hunger Index 2020** is a peer-reviewed report released **annually by Concern Worldwide and Welthungerhilfe**

is, who have low weight for their height, reflecting acute undernutrition);

3. **CHILD STUNTING**: the share of children under the age of five who are stunted (that is, who have low height for their age, reflecting chronic undernutrition); and

4. **CHILD MORTALITY**: the mortality rate of children under the age of five (in part, a reflection of the fatal mix of inadequate nutrition and unhealthy environments)

Severity of Hunger:

Each country's GHI score is classified by severity, from low to extremely alarming as follows:

a. Low ≤ 9.9
b. Moderate 10.0-19.9
c. Serious 20.0-34.9
d. Alarming 35.0-49.9
e. Extremely alarming ≥ 50.0

India's Findings:

- India has the highest prevalence of wasted children under five years in the world, which reflects acute undernutrition it has increased in 2015-19 (17.3%) in comparison to 2010-14(15.1%).
- **India ranks 94 out of 107 countries** in the Index, lower than neighbours such as Bangladesh (75) and Pakistan (88).
- India fares worst in child wasting (low weight for height, reflecting acute undernutrition) and child stunting (low height for age, reflecting chronic undernutrition), which together make up a third of the total score.
- Child stunting has actually improved significantly, from 54% in 2000 to less than 35% now
- India has improved in both child mortality rates, which are now at 3.7%, and in terms of undernourishment, with about 14% of the total population which gets an insufficient caloric intake.
- In the region of south, east and south-eastern Asia, the only countries which fare worse than India are Timor-Leste, Afghanistan and North Korea.

Global Effect :

- ☆ Globally, nearly 690 million people are undernourished
- ☆ The world is not on track to achieve the second Sustainable Development Goal — known as Zero Hunger for short — by 2030. At the current pace, approximately 37 countries will fail even to reach low hunger, as defined by the Global Hunger Index Severity Scale, by 2030
- ☆ These projections do not account for the impacts of the COVID-19 pandemic, which may worsen hunger and undernutrition in the near term and affect countries' trajectories into the future

Issues with the Index

NITI Aayog has highlighted some flaws with the index over the past few years

The methodology clubs the height and weight data about all children of the world together and on the basis of that ranking, categorizes those "below average" children as wasted or stunted.

However, it ignores the important determinants of the height or weight of a child, like genetic factors which could have some role in determining heights and weights of under-five children.

6. Tamil Nadu govt to reject eminence status offered for Anna University

What's in News ?

The Tamil Nadu government said it will not accept the Institute of Eminence (IoE) status offered to Anna University, as it would affect the 69-per cent reservation in the state-run varsity

Institute of Eminence (IoE) Scheme

- → In order to create world class educational institutions in the country, the human resource development (HRD) ministry has come out with an Institutions of Eminence (IoE) scheme
- → It was first announced in 2016 Budget speech by Finance Ministry, accordingly Ten public and ten private institutions are to be identified to emerge as world-class Teaching and Research Institutions.
- → This will enhance affordable access to high quality education for ordinary Indians.
- → Accordingly, UGC notified 'UGC (Institutions of Eminence Deemed to be Universities) Regulations, 2017' for private institutions and guidelines 'UGC (Declaration of Government Educational Institutions as Institutions of Eminence) Guidelines, 2017' for public institutions to provide regulatory structure for enabling Higher Educational Institutions to become world-class teaching and research institutions.
- → The Institute of Eminence scheme aimed at developing 20 world-class institutions which would put India on the global education map.

Benefits of IOE Status:

➤ Government Institutions to get additional funding upto 1000 Cr.

➤ The selected Institutions under IoE shall have complete academic and administrative autonomy.

➤ Freedom to recruit faculty from outside India (limit of 25% of its faculty strength for public institution).

➤ Freedom to enter into academic collaborations with other Institutions within the country.

➤ Academic collaborations with foreign higher educational institutions (in top 500) would be exempt from government approvals.

➤ Flexibility in fixing of curriculum and syllabus, with no UGC mandated curriculum structure.

➤ UGC Inspection shall not apply to Institutions of Eminence.

Which institutes can apply for the status?

The educational institutes selected, need to be a good mix of Central Universities as well as Arts, Management and Technical Institutes. To get the status, they should be among:

      1. Top 50 in the National lnstitution Ranking Framework in their category

      2. Top 500 in internationally recognised rankings like the Times Higher Education World University Rankings or Q

Public Institutes that are eligible to apply under Institutes of Eminence are as follows:

      – Central Universities

      – Government-owned and controlled Deemed to be Universities.

      – lnstitutions of National lmportance such as IITs, NITs, etc.

      – State Universities set up under a law made by Legislative Assembly of a State.

7. 76% of rural Indians can't afford a nutritious diet

What's in news ?

✓ Three out of four rural Indians cannot afford a nutritious diet, according to a paper recently published in journal **Food Policy,the paper, titled "Affordability of nutritious diets in rural India".**

✓ This study uses the wages of unskilled workers who make up a larger proportion of the population than industrial workers, and includes items such as dairy, fruit and dark green leafy vegetables that are essential as per India's official dietary guidelines.

✓ The National Institute for Nutrition's guidelines for a nutritionally adequate diet call for adult women to eat 330 gm of cereals and 75 gm of pulses a day, along with 300 gm of dairy, 100 gm of fruit, and 300 gm of vegetables, which should include at least 100 gm of dark green leafy vegetables

✓ The study calculated that a day's meals would cost ₹ 45 (or ₹ 51 for an adult man).

✓ The Global Hunger Index showed that India has the world's highest prevalence of child wasting, reflecting acute undernutrition. On indicators that simply measure calorie intake, India performs relatively better, but they do not account for the nutrition value of those calories.

✓ Even if they spent all their income on food, 63.3% of the rural population or more than 52 crore Indians would not be able to afford that nutritious meal.

✓ If they set aside just a third of their income for non-food expenses, 76% of rural Indians would not be able to afford the recommended diet.

✓ This does not even account for the meals of non-earning members of a household, such as children or older adults.

8. India and HIV

What's in News?

The **2019 HIV estimates by the National AIDS Control Organization (NACO)/Ministry of Health and Family Welfare with the technical support of UNAIDS** was released recently

Findings of the Estimates

i. There has been a 66.1% reduction in new HIV infections among children and a 65.3% reduction in AIDS-related deaths in India over a nine-year period.
ii. The number of pregnant women living with HIV has reduced from 31,000 in 2010 to 20,000 in 2019.
iii. Overall, antenatal coverage has expanded, and HIV testing has increased over time and within target range.
iv. Treatment coverage has also expanded.

Steps Taken by India to Control HIV :

i. The National AIDS Control Organisation (NACO) is a division of the Ministry of Health and Family Welfare that provides leadership to HIV/AIDS control programme in India through 35 HIV/AIDS Prevention and Control Societies.
ii. Under the leadership of NACO, a 'Fast-Tracking of EMTCT (elimination of mother-to-child transmission) strategy-cum-action plan' was outlined by June 2019, in the run-up towards December 2020: the deadline to achieve EMTCT.
iii. EMTCT was launched for the first time in 2002
iv. India made HIV testing for all pregnant women free and HIV treatment is offered the same way nationwide without cost to pregnant mothers living with HIV through the national 'treat all' policy.
v. Central government is giving free antiretroviral therapy (ART) to all the HIV positive pregnant women. *(HIV is a type of virus called a retrovirus, and the combination of drugs used to treat it is called Antiretroviral Therapy (ART)).*

Way Forward:

However, there remains a need for increased treatment saturation coverage and for early HIV testing and treatment initiation to become the normal.

Using data-driven and decision-making approaches, we are certain that AIDS will no longer be a public health threat for children in India by the end 2030, if not before.

9. '20% rural students lack books'

→ About 20% of rural children have no textbooks at home, according to the **Annual State of Education Report (ASER) survey** conducted in September by **NGO Pratham**, the sixth month of school closures due to COVID-19 across the country.
→ This year the survey explores access to distance education mechanisms, materials and activities for children in rural India
→ In Andhra Pradesh, less than 35% of children had textbooks, and only 60% had textbooks in Rajasthan. More than 98% had textbooks in West Bengal, Nagaland and Assam
→ Maharashtra, Gujarat, Madhya Pradesh, Himachal Pradesh and Tripura have reported more than 30 percent increase in the proportion of children whose families own a smartphone.
→ In households where children are enrolled in government schools, the percentage of smartphone ownership has increased from 29.6% in 2018 to 56.2% in 2020.
→ In the same period, in households where children are in private schools, the percentage of smartphone ownership has increased by 24% to 74.2% in 2020
→ ASER is a nationwide survey of rural education and learning outcomes in terms of reading and arithmetic skills that has

Learning hit

Some highlights from the Annual Status of Education Report's September survey:

• 5.3% of rural children aged 6-10 years are not enrolled in school this year, in comparison to just 1.8% in 2018

• Around 20% of rural children did not have textbooks at home by September

• About 70% of rural

children did some learning activity. Of these, only 11% had live online classes

• Less than 36% of rural children received some learning materials or activities from the school. Almost 75% of such school interaction was via Whatsapp

been conducted by the NGO Pratham for the last 15 years.

F.SCIENCE AND TECHNOLOGY

1. DRDO successfully tests anti-submarine warfare missile system?

What's in news?

The Defence Research and Development Organisation (DRDO) on Monday successfully test-fired a missile assisted release of lightweight anti-submarine torpedo system for Anti-Submarine Warfare (ASW), Missile Assisted Release of Torpedo (SMART).

Anti-Submarine Warfare (ASW) :

  i. Anti-submarine warfare refers to underwater warfare that uses surface warships, aircraft, submarines, or other platforms, to find, track, and deter, damage, and/or destroy enemy submarines.
  ii. Typically, sophisticated sonar equipment is used for first detecting, then classifying, locating, and tracking a target submarine.
  iii. Common weapons for attacking submarines include torpedoes and naval mines, which can both be launched from an array of air, surface, and underwater platforms.

What is SMART system?

  i. Torpedoes, self-propelled weapons that travel underwater to hit a target, are limited by their range.
  ii. In the mid-2010s, DRDO undertook a project to build capacity to launch torpedoes assisted by missiles
  iii. This **SMART system comprises a mechanism by which the torpedo is launched from a supersonic missile system with modifications that would take the torpedo to a far longer range than its own**.
  iv. For example, a torpedo with a range of a few kilometres can be sent a distance to

the tune of 1000 km by the missile system from where the torpedo is launched.
  v. The system also gives flexibility in terms of the missie system's launch platform
  vi. A number of DRDO laboratories including Defence Research and Development Laboratory (DRDL) and Research Centre Imarat (RCI), both in Hyderabad; Aerial Delivery Research and Development Establishment (ADRDE) in Agra; and Naval Science and Technology Laboratory (NSTL) Visakhapatnam have developed the technologies required for SMART.

Why is it significant?

  i. SMART is a game-changing technology demonstration in anti-submarine warfare.
  ii. India's anti-submarine warfare capacity building is crucial in light of China's growing influence in the Indian Ocean region
  iii. Assets of such warfare consist of deployment of submarines, specialised anti-submarine ships, air assets and state-of-the-art reconnaissance and detection mechanisms.
  iv. The Navy's anti-submarine warfare capability got a boost in June after the conclusion of a contract for Advanced Torpedo Decoy System Maareech, capable of being fired from all frontline warships.
  v. India has been indigenously developing and building several anti-submarine systems and vessels in the recent past.

2.Digital platform to track vaccine supply

What's in news?

The eVIN network, which can track the latest vaccine stock position; temperature at storage facility; geo-tag health centres; and maintain facility-level dashboard, is being repurposed for the delivery of the COVID-19 vaccine

What is eVIN?

  i. **eVIN (Electronic Vaccine Intelligence Network) is an indigenously developed** technology system in India that digitizes

vaccine stocks and monitors the temperature of the cold chain through a smartphone application.

ii. Electronic Vaccine Intelligence Network (eVIN) is been **implemented under the National Health Mission under the Ministry of Health and Family Welfare, and UNDP which aims to support the Universal Immunization Programme** through eVIN

iii. Supported by GAVI-the Vaccine Alliance, the health systems strengthening project aims to streamline and regularize the vaccine flow network by ensuring data-driven and efficient management of the immunization supply chain.

iv. The goal is to ensure equity in easy and timely availability of vaccines to all children.

v. eVIN is digitsing vaccine stocks at all 27,000 vaccine storage centres across all districts of 29 states and 7 union territories of India

vi. Achieved over 80% reduction in instances of vaccine stock-outs

vii. Supported a vaccine availability rate of over 99% at all cold chain points

viii. eVIN won the GSMA Asia Mobile Award 2017 (AMO) for Outstanding Mobile Contribution to Sustainable Development Goals in Asia.

ix. eVIN won the Public Health Initiative Silver Award at the India Health and Wellness Summit 2017.

x. eVIN from Madhya Pradesh was awarded as one of the Best Innovations at the Third National Summit on Good & Replicable Practices & Innovations in Public Health Care Systems in India held at Tirupati in August 2016.

xi. Some States have already been using eVIN to track state specific COVID-19 material supplies

xii. According to certain reports, COVID-19 Vaccine supplies are likely from early 2021, eVIN will be used for this purpose.

3.India Successfully test fired new version of nuclear capable Shaurya Missile

What's in News?

India successfully test-fired a new version of nuclear-capable Shaurya missile off the coast of Odisha, which can strike targets at around 800 kms

Shaurya Missile:

i. Shaurya is a land variant of short-range **Submarine Launched Ballistic Missile (SLBM) K-15 Sagarika**

ii. It has a strike range of 750 to 1,000-km and can reach speeds of **7.5 Mach**

iii. The 10 metre-long missile can carry both nuclear and conventional warheads weighing up to 1,000 kilograms.

iv. Shaurya, is a **canister based system**, which means that it is stored and operated from specially designed compartments.

v. It is equipped with multiple advanced computing technology and high accuracy navigation and sophisticated control and guidance systems.

vi. The two-stage missile powered by solid fuel, is so fast that the enemy's radar will get less than 400 seconds to detect, track, and intercept it.

vii. The new missile would be lighter and easier to operate in comparison with the existing missile

The K Family of missiles:

i. The K family of missiles are primarily **Submarine Launched Ballistic Missiles (SLBMs), which have been indigenously developed by Defence Research and Development Organisation (DRDO)** and are named after late Dr APJ Abdul Kalam — which are launched from Arihant class of nuclear submarines.

ii. Because these missiles are to be launched from submarines, they are lighter, smaller and stealthier than their land-based counterparts, the Agni series of missiles which are medium and intercontinental range nuclear capable ballistic missiles.

iii. India has also developed and successfully tested multiple times the K-4 missiles from the family which has a range of 3500 km.

iv. It is reported that more members of K-family — reportedly to have been codenamed K-5 and K-6 — with ranges of 5000 and 6000 km are also under development.

The strategic importance of SLBMs

a) The capability of being able to launch nuclear weapons submarine platforms has great strategic importance in context of achieving a nuclear triad, especially in the light of 'no first use' policy of India.

b) The sea-based underwater nuclear capable assets significantly increases the second strike capability of a country and thus boosts its nuclear deterrence.

c) These submarines can not only survive a first strike by the adversary but also can launch a strike in retaliation thus achieving Credible Nuclear Deterrence.

d) The 2016 commissioned nuclear powered Arihant submarine and its class members which in the pipeline, are the assets capable of launching missiles with nuclear warheads.

e) The development of these capabilities is important in light of India's relations with the two neighbours China and Pakistan.

f) With China having deployed many of its submarines, including some which are nuclear powered and nuclear capable, this capacity building is crucial for India's nuclear deterrence

4.DRDO successfully test-fires India's first indigenous anti-radiation missile Rudram-1

What's in news?

i. The Defence Research and Development Organisation (DRDO)has successful tested the **New Generation Anti Radiation Missile (NGRAM)** also called the Rudram-1.

ii. This is the first indigenous anti-radiation missile of the country.

iii. Rudram is an air-to-surface anti-radiation missile with a speed of Mach 2

iv. While the system has been tested from a Sukhoi-30 MKI fighter jet, it will be adapted for launch from other fighter jets too.

Anti Radiation Missiles:

Anti-radiation missiles are designed to detect, track and neutralise the adversary's radar, communication assets and other radio frequency sources, which are generally part of their air defence systems.

Such a missile's navigation mechanism comprises an inertial navigation system — a computerised mechanism that uses changes in the object's own position — coupled with GPS, which is satellite-based.

How significant are such missiles in aerial warfare?

i. Rudram has been developed for the IAF's requirement to enhance its **Suppression of Enemy Air Defence (SEAD) capability**.

ii. As one of the many aspects of SEAD tactics, anti-radiation missiles are used mainly in the initial part of air conflict to strike at the air defence assets of the enemy, and also in later parts, leading to higher survivability to a country's own aircraft.

iii. Neutralising or disrupting the operations of the adversary's early warning radars, command and control systems, surveillance systems that use radio frequencies and give inputs for anti-aircraft weaponry, can be very crucial.

5. SERB-POWER (Promoting Opportunities for Women in Exploratory Research)

What's in News?

Dr. Harsh Vardhan, Union Minister for Science & Technology, Earth Sciences and Health & Family Welfare launched a Scheme titled "SERB-POWER (Promoting Opportunities for Women in Exploratory Research)", designed exclusively for

women scientists, in a function today on an e-platform.

SERB:

The Science and Engineering Research Board (SERB), **a Statutory body of the Department of Science and Technology (DST),** Government of India, has been contemplating to institute a scheme to mitigate gender disparity in science and engineering research in various S&T programs in Indian academic institutions and R&D laboratories.

SERB POWER SCHEME:

SERB – POWER Scheme will have two components namely

> 1.SERB-POWER Fellowship
> 2.SERB- POWER Research Grants.

The salient features of each of these are as follows:

A,Salient features of the SERB-POWER Fellowship:-

a) Target: Women researchers in 35-55 years of age. Up-to 25 Fellowships per year and not more than 75 at any point in time.

b) Components of support: Fellowship of Rs. 15,000/- per month in addition to regular income; Research grant of Rs. 10 lakh per annum; and Overhead of Rs. 90,000/- per annum.

c). Duration: Three years, without the possibility of extension. Once in a career.

B. Salient features of the SERB – POWER Research Grants :

a) POWER Grants will empower women researchers by funding them under following two categories:

i. Level I (Applicants from IITs, IISERs, IISc, NITs, Central Universities, and National Labs of Central Government Institutions): The scale of funding is up to 60 lakhs for three years.

ii. Level II (Applicants from State Universities / Colleges and Private Academic Institutions): The scale of funding is up to 30 lakhs for three years.

b. POWER Grant will be regulated through terms of reference conforming to SERB-CRG(Science and Engineering Research Board-Core Research Grant) guidelines.

While a Search-cum-Selection Committee constituted for the purpose will help in identifying the POWER Fellowship, the existing Programme Advisory Committee (PAC) mechanism will be used to select the POWER Research Grants.

It is proposed to institute 25 POWER Fellowships annually. A total of 50 Power Grants each will be sanctioned in Level I & Level II per annum.

Women in Science:

i. According to a 2018 fact sheet prepared by UNESCO on women in science, only 28.8% of researchers are women.

ii. UNESCO data from 2014-16 shows that only around 30% of female students select STEM (Science, Technology, Engineering and Mathematics)-related fields in higher education.

iii. Between 1901 and 2019, 334 Nobel Prizes have been awarded to 616 Laureates in Physics, Chemistry and Medicine, of which just 20 have been won by women.

iv. According to the NITI Aayog report in 2015-16, 9.3% of female students in Undergraduate (UG) courses were enrolled in engineering, compared to 15.6% across genders.

v. Conversely, 4.3% of female students were enrolled in medical science, compared to 3.3% across genders.

vi. Only 13.9% of women work as a researcher in India

6. India test-fires air launched version of BrahMos supersonic cruise missile

What's in News?

The Indian Air Force successfully test-fired an air-launched version of the BrahMos supersonic cruise missile on October 30, 2020.

The BrahMos supersonic cruise missile was test-fired from a Sukhoi fighter aircraft in the Bay of Bengal.

It displays the growing combat prowess of Indian Air Force

BrahMos:

→ BRAHMOS is a **joint venture** between the Defence Research and Development

Defence Research and Development Organisation (DRDO) has conducted at least 12 tests of missiles or systems for missiles belonging to a vast spectrum of ranges and purposes.

Some of them include Shaurya Missile, Supersonic Missile Assisted Release of Torpedo (SMART) system, Stand-Off Anti Tank Missile (SANT) and Rudram**,**

Organisation of India **(DRDO) and the NPOM of Russia.**

→ Brahmos is named on the rivers **Brahmaputra and Moskva.**
→ Brahmos is the **heaviest weapon to be deployed on Su-30 MKI** fighter aircraft, with a weight of 2.5 tonnes.

→ Brahmos is a **multiplatform** i.e it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.
→ It operates on the **"Fire and Forgets"** principle i.e it does not require further guidance after launch

7. The plasma therapy debate

What's in News ?

Recently published findings on convalescent plasma therapy on Covid-19 patients have triggered a debate over its efficacy. After the country's largest such trial, known by the acronym **PLACID**, found that convalescent plasma was ineffective in arresting Covid-19, the Indian Council of Medical Research (ICMR) has been considering dropping this option from the national guidelines.
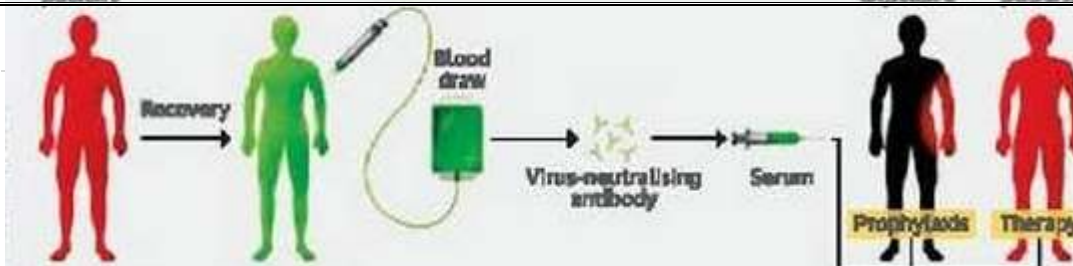
What is Plasma Therapy ?

Human Blood has 4 main components

1. Red Blood Cells (RBC) – involved in carrying the oxygen
2. White Blood Cells (WBC) – involves in immune system
3. Platelets – are Cell fragments that form clots to stop bleeding
4. Plasma – it is the liquid portion of blood, which is the largest component of blood (around 55%) and consists mostly of water (over 90%). It is the yellow liquid that remains after cells are removed from blood that helps circulate proteins, nutrients and hormones throughout the body.
   ➢ Convalescent plasma therapy is a **passive immunisation process**.
   ➢ It is simply the transfusion of plasma containing antibodies from immune survivors of infectious diseases to the affected individuals.
   ➢ Passive immunisation in general, could be either natural or acquired. When an infant receives antibodies

from the mother's milk or placenta, it is natural.

➤ On the contrary, in convalescent plasma therapy, the transfer happens artificially

➤ When the body encounters a new germ, it makes proteins called antibodies that are specially targeted to fight the infection.

➤ Scientists have been interested in plasma as a COVID-19 treatment because it contains these antibodies that are developed after an infection.

➤ The therapy involves using their plasma to help others recover. For Covid-19, this has been one of the treatment options.

➤ The donor would have to be a documented case of Covid-19 and healthy for 28 days since the last symptoms.

➤ Plasma Therapy is not new it was employed in H1N1 influenza, Ebola, SARS and MERS.

Is Plasma Therapy Completely Safe ?

Plasma Therapy is not a complete safe procedure, it has some issues they are,

➤ Risk of transmission of allergic reactions like fever, itching, to life-threatening allergic reactions and lung injury.

➤ If Plasma has undetected virus during COVID testing if may increase the viral load in patients

➤ Even though the risk associated with Plasma can be minimised, it cannot be zero

➤ Plasma Therapy has some procedural issues such as non availability of donors, sale of convalescent plasma in black

market and it involves resource-intensive processes such as plasmapheresis, plasma storage, and measurement of neutralising antibodies.

➤ A limited number of institutes in India have the capacity to undertake these procedures in a quality-assured manner

What are the findings of Trials ?

➤ PLACID was a randomised controlled trial in 39 hospitals spread across 14 states and Union Territories and representing 25 cities.

➤ While use of convalescent plasma seemed to improve resolution of shortness of breath and fatigue in patients with moderate Covid-19, this did not translate into a reduction in 28-day mortality or progression to severe disease Elsewhere in the world,

➤ In China, a controlled trial of 103 patients with severe Covid-19 reported no effect of convalescent plasma treatment in terms of time to clinical improvement.

➤ In the Netherlands, the ConCOVID trial, prematurely terminated after 86 patients had been enrolled, could not find any effect on mortality at 60 days, hospital stay, or disease severity at 15 days.

Way Forward :

➤ This is a new virus, and around the world evidence is still emerging on the best therapeutic options.

➤ For example, remdesivir has been sanctioned as a drug of choice by the US drug regulator, while the World Health Organization's Solidarity Trial has found it had

- little or no effect on 28-day Covid mortality.
  - ➤ And experts said use of convalescent therapy has saved some lives but concerns have been raised by the PLACID trial.
  - ➤ Experts claim that guidelines are not necessarily binding and it is too early to drop plasma therapy from the guidelines.

Facts :

India's first plasma bank was opened in Delhi *(A plasma bank functions like a blood bank)*

PRELIMS TIT BITS

1.Goa Approves New Tourism Policy

The Goa government approved the Goa Tourism Policy 2020, with a vision to make the state the "most preferred destination around the year for high-spending tourists" in 2024

2.RBI to move to nextgen application for FOREX

In a bid to improve its functioning, the Reserve Bank has decided to move to the Next Generation Treasury Application (NGTA) for managing the country's foreign exchange and gold reserves.

The NGTA, according to the RBI, would be a web-based application providing scalability, maneuverability and flexibility to introduce new products and securities, besides supporting multi-currency transactions and settlements.

3.Climate change driving butterflies, moths higher up Himalayas

A survey, funded by the Ministry of Environment, Forest and Climate Change and carried out by the Zoological Survey of India (ZSI) have found that Rising average temperatures in the Himalayan region have driven several dozen species of butterfly and moth to habitats higher up the mountains

Butterflies are sensitive species that are extremely susceptible to changes in climate.

They are, therefore, good indicators of long-term change in climatic conditions

4.Uttarakhand mulls plantation drive in other states to clear compensatory afforestation backlog

To clear the backlog for compensatory afforestation over the next two years, the Uttarakhand Forest Department is mulling a plantation drive in Uttar Pradesh's Bundelkhand region and parts of Rajasthan.

Compensatory afforestation is done against the transfer of forest land for non-forestry purposes like the development of dams, mining and the construction of industries or roads. In compensatory plantation, 1,100 plants are planted over an area of one hectare.

5. A child has to learn his mother tongue to gain a foundation, says Supreme Court

The Andhra Pradesh government has approached the Supreme Court challenging its State High Court decision to strike down a government order of November 2019 which made English medium education compulsory from classes I to VI in primary, upper primary and high schools under all managements from 2020-21. It was to be gradually extended to each further class from the consequent academic years.

A child has to learn his mother tongue to gain a foundation, the Supreme Court accosted Jagan Mohan Reddy-led Andhra government's logic that children, without learning English, get 'isolated'.

The National Education Policy 2020 urges for high-quality textbooks in mother tongue and for teachers to adopt a bilingual approach.

The National Curriculum Framework of 2005 and Section 29 of the Right to Education Act of 2009 required the medium of instruction hall, as far as practicable, to be in child's mother tongue.

6. U.P. govt. inks agreement with Swiss firm for Jewar airport

The Uttar Pradesh government signed a concession agreement with Zurich Airport International for designing, building and operating the Noida International Airport at Jewar for a period of 40 years.

The airport will be developed on Public-Private Partnership (PPP) basis and is scheduled to open in 2024.

It will be located at a distance of 70 kms from Delhi, 40 kms from Noida and 130 kms from Agra.

7.Tripura Launches Bamboo Rice

Tripura has launched 'bamboo rice', an exotic variety of rice derived from flower blossoms in bamboo trees.

The special rice is claimed to have high protein, anti-joint pain and anti-diabetic benefits.

Odisha is famous for bamboo rice.

While bamboo rice or mulayari grows only once in several years, in case a dying bamboo shoot flowers and leaves its seed in it. Muli bamboo, which is commonly grown in Tripura, is particularly favorable for this sweet, wheaty, nutritious bamboo rice.

Earlier Tripura Government has launched the Bamboo bottles and Bamboo cookies

8.Delhi Cabinet nods for "Tree Transplantation Policy"

Delhi is the first State in the country where this policy has been passed.

A dedicated Tree Transplantation Cell will also be formed by the Delhi government and local committees, which will include government officials, citizens, RWAs to monitor the transplanted trees and to certify that the task has been done with due diligence.

9. Indian tag for 'Pak' butterfly, 'Chinese' dragonfly

Pakistani butterfly and Chinese dragonfly species have been included in lists of indigenous species

The Spialia zebra (Pakistani Butterfly) butterfly would add to the richness of Rajasthan's Phulwari ki Nal Wildlife Sanctuary and Sita Mata Wildlife Sanctuary

Atratothemis Reelsi (Chinese Dragonfly) was recorded in southern Arunachal Pradesh's Namdapha Tiger Reserve.

10.Endangered Tree Species rediscovered in Kerala

Researchers at the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) in Kerala have rediscovered an endangered tree species 184 years after its first collection.

A tree from the species has been identified in front of Koonayil Ayiravilli Siva temple at Paravur in Kollam district.

Madhuca diplostemon, a species of flowering plant from Sapotaceae family, has been listed as endangered by the International Union for Conservation of Nature Red List of Threatened Species.

This species was first described by Robert Wight, a surgeon-botanist of the East India Company, based on his collection from Kollam in 1835 which comprises three specimens with immature flower buds.

11.Gallants of Galwan

The Indian Army has built a memorial in Eastern Ladakh for the 20 personnel killed in the violent clash at Galwan Valley on June 15

12. Vaishwik Bharatiya Vaigyanik (VAIBHAV) Summit

It is a global summit of Overseas and Resident Indian scientists and academicians.

Key areas of discussion will include: quantum technologies, artificial intelligence and machine learning, communications technologies, computational and data sciences and aerospace technologies among others.

The Summit is a joint effort of various Science & Technology (S&T) and Academic organisations, including Department of S&T, Defence Research and Development Organisation (DRDO).

13. ICGS Kanaklata Barua

A Fast Patrol Vessel (FPV) named ICGS Kanaklata Barua was commissioned in the Indian Coast Guard

It is the fifth and last in a series of FPVs built by Garden Reach Shipbuilders and Engineers (GRSE) Ltd. The other four are ICGS Priyadarshini (named after Indira Gandhi), ICGS Annie Besant, ICGS Kamala Devi (after Kamala Devi Chattopadhyay), and ICGS Amrit Kaur.

Officials said these are suited for patrolling, maritime surveillance, anti-smuggling, anti-poaching operations and also for fishery protection, and rescue and search missions.

These FPVs are medium-range surface vessels with a length of around 50 m, and a displacement of over 300 tonnes.

One of the youngest martyrs of the Quit India Movement, Kanaklata Barua has iconic status in Assam.

Barua, then 17, led the Mukti Bahini, a procession of freedom fighters to unfurl the Tricolour at Gohpur police station on September 20, 1942.

When police did not let them move forward, an altercation led to firing, killing Barua at the head of the procession.

14. "Tech For Tribals"

TRIFED, IIT Kanpur and Chhattisgarh MFP Federation E-Launch "Tech for Tribals" Initiative

TRIFED, in collaboration with Ministry of Small and Medium Enterprises (MSME) under the Entrepreneurship and Skill Development Programme (ESDP), commenced the 'Tech for Tribals' programme that aims at the holistic development of tribals with a focus on entrepreneurship development, soft skills, IT, and business development through SHGs operating through Van Dhan Vikas Kendras (VDVKs).

It will Bridge the Gap between Tribal Entrepreneurs and Urban Markets

15. 'KAPILA' (Kalam Program for Intellectual Property Literacy and Awareness) campaign

Union Education Minister launched the 'KAPILA' (Kalam Program for Intellectual Property Literacy and Awareness) campaign on the 89th birth anniversary of former President and Scientist Late Dr. APJ Abdul Kalam.

Under this campaign, students pursuing education in higher educational institutions will get information about the correct system of application process for patenting their invention and they will be aware of their rights.

It has also been decided to celebrate the week of October 15th to 23rd as 'Intellectual Property Literacy Week'.

16. Decade of Healthy Ageing (2020-2030)

1st October, 2020 is the launch year of Decade of Healthy Ageing (2020-2030)

Every year 1st October is celebrated as the International Day of Older Persons, as declared by United Nations, to recognize, enable and expand the contributions of older people in their families, communities and societies at large and to raise awareness towards issues of ageing

17. MoU Signed between ISLRTC and NCERT

A Memorandum of Understanding (MoU) was signed between Indian Sign Language Research and Training Center-ISLRTC (a National Institute of DEPwD, Ministry of Social Justice and Empowerment) and NCERT (a National Institute of Ministry of Education) to make education materials accessible for Deaf children in their preferred format of communication viz Indian Sign Language

Signing of this MoU is based on the UNICEF's initiative "Accessible Digital Textbooks for All"

18. ADB and India

The Asian Development Bank (ADB) and the Government of India signed a $270 million loan to develop water supply and integrated storm water and sewage management infrastructure and strengthen capacities of urban local bodies (ULBs) for improved service delivery in the state of Madhya Pradesh and a $300 million loan to finance inclusive and sustainable water supply and sanitation infrastructure and services in 14 secondary towns of the state of Rajasthan

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region.

19. Exercise Suraksha Kavach

Exercise Suraksha Kavach is a Joint Anti-Terrorist Exercise by Indian Army and Maharashtra Police at Lullanagar Pune

The aim of the exercise was to harmonize the drills and procedures of both Army and Police for activating anti-terrorist Quick Reaction Teams (QRTs) to counter any terrorist actions in Pune.

The exercise involved participation of Quick Reaction Teams, Dog Squads and Bomb Disposal Teams of Army as well as Anti-Terrorism Squad (ATS) and Quick Reaction Team of Maharashtra Police.

20. Dhaulasidh Hydro Project

Prime Minister Narendra Modi announced the construction of 66 MW Dhaulasidh Hydro Project at Hamirpur, Himachal Pradesh.

The project is proposed on the horse shoe curve of the Beas

21. SCO Virtual Summit

India Hosts Virtual Summit of Ministers of Justice of Shanghai Cooperation Organisation (SCO)

22. India – International Food and Agriculture Week

India - International Food & Agri Week being organised from 16th to 22nd October 2020, Under Aatma Nirbhar Bharat Abhiyan, MoFPI has started PMFME (PM Formalisation of Micro food Enterprises) scheme with an outlay of Rs 20,000 crores. This scheme will support 2 lakh micro food processing units with credit linked subsidy and would focus on supporting the SHGs, FPOs and cottage industry

23. FAO Commemorative coin

PM releases commemorative coin of Rs 75 denomination to mark the 75th Anniversary of FAO

24. Cloud Innovation Centre

NITI Aayog announced the establishment of a Frontier Technologies Cloud Innovation Centre, CIC with Amazon Web Services, AWS. It is the first of its kind in India.

25. SLINEX-20

Indian Navy – Sri Lanka Navy Maritime Exercise SLINEX-20 off Trincomalee

The Eighth Edition of annual Indian Navy (IN) – Sri Lanka Navy (SLN) bilateral maritime exercise SLINEX-20 is scheduled off Trincomalee, Sri Lanka from 19 to 21 October 2020.

The previous edition of SLINEX was conducted off Visakhapatnam in September 2019.

SLINEX-20 aims to enhance inter-operability, improve mutual understanding and exchange best

practices and procedures for multi-faceted maritime operations between both navies.

26. Ayushman Sahakar Fund

Union Minister of State for Agriculture Shri Parshottam Rupala launches Rs. 10,000 crore NCDC Ayushman Sahakar Fund for creation of healthcare infrastructure by cooperatives

27. ADB Loans to India

The Asian Development Bank (ADB) and the Government of India signed a $177 million loan to upgrade 450 kilometers (km) of state highways and major district roads in the state of Maharashtra.

28.Multimodal Logistic Park

Union Minister for Road Transport, Highways and MSMEs Shri Nitin Gadkari laid the foundation stone for country's first Multi-modal Logistic Park at Jogighopa in Assam. The Rs 693.97 crore park will provide direct air, road, rail and waterways connectivity to the people. It will be developed under the ambitious Bharatmala Pariyojana of the Government of India

Ministry envisages developing 35 Multi-modal Logistic Parks (MMLPs) in the country

SPVs will be formed for all these MMLPs, and professionally qualified CEOs will be appointed for each separately.

29. Chairmanship of ILO

After 35 years, India has assumed the Chairmanship of the Governing Body of International Labour Organization - Shri Apurva Chandra, Secretary (Labour and Employment) has been elected as the Chairperson of the Governing Body of the International Labour Organisation (ILO) for the period October 2020- June 2021.

30.JBIC GREEN

In the first funding for NTPC Ltd under Japan Bank for International Co-operation (JBIC)'s GREEN or Global Action for Reconciling Economic growth and Environment preservation initiative, India's largest power producer today entered into foreign currency loan agreement with Japanese Government's financial institution for JPY 50 billion (approx. USD 482 million or Rs. 3,582 crore).

31. DRIP

The Cabinet Committee on Economic Affairs chaired by the Prime Minister Shri Narendra Modi has approved the Dam Rehabilitation and Improvement Project (DRIP) Phase II & Phase III with the financial assistance of the World Bank (WB), and Asian Infrastructure Investment Bank (AIIB) to improve the safety and operational performance of selected dams across the whole country, along with institutional strengthening with system wide management approach.

The project cost is Rs 10,211 crore. The Project will be implemented over a period of 10 years duration in two Phases, each of six years duration with two years overlapping from April, 2021 to March, 2031

32. OPERATION MERI SAHELI

Indian Railways launches OPERATION MERI SAHELI - for focused action on security of women across all zones with an objective to provide safety and security to lady passengers travelling by trains for their entire journey from starting station to destination station.It was a started as a pilot initiative by RPF in South Eastern Railway in September 2020 and after getting encouraging response from lady passengers, it was extended to all zones

33. NABARD RIDF

NABARD has sanctioned loans worth ₹ 8504.30 lakh under Rural Infrastructure Development Fund (RIDF) to the Government of Goa for various Social Infrastructure Projects in the State.

34. IVC Dairy Production

Evidence of dairy production has been obtained in the Indus Valley Civilisation

Recently, a study by Indian and Canadian archaeologists has found that dairy products were

being produced by the Harappans as far back as 2500 BCE.

2020 marks the 100 years of Discovery of Indus Valley Civilization

35. Sadhna Pass

Sadhna Pass, previously called as Nastachun pass, is a mountain pass in Jammu and Kashmir. It is located in the Himalayas and connects Karnah tehsil of Kupwara district with the rest of the Indian administrated Kashmir valley. It is located in the vast Shams Bri mountainous range. It is about 3000 m above sea level.

Why was the Pass in News ?

> Nine rifflewomen of the paramilitary force Assam Rifiles were deployed at the Sadhna pass, for combat functioning under the Army as a part of series of steps taken recently to contain the smuggling of narcotics from across the line of control.

36. Indian Army's SAI

Indian Army has developed a simple and secure messaging application named the "Secure Application for Internet (SAI)". SAI will be utilised pan Army to facilitate secure messaging within the service.

37. Paternal Child Care Leave

Union Minister of Personnel, Public Grievances, Pensions said that the male employees of the government are also now entitled to Child Care Leave. However, the provision of Child Care Leave (CCL) will be available only for those male employees who happen to be "single male parent".

38. US Arm Sales to Taiwan

The US has approved arms sales to Taiwan worth around $1.8bn (£1.4bn), in a move that is likely to increase tensions with China.

39.ADNOC's Indian Investment

Abu Dhabi National Oil Company (ADNOC), UAE's biggest energy producer, is seeking Indian companies for partnership in its ambitious $45 billion downstream petrochemical expansion plans. ADNOC was the first foreign company to hire space at the underground crude oil storage India has built as an insurance against supply and price disruptions.

40. India's FOREX

The country's foreign exchange reserves touched a life time high of $555.12 billion after it surged by $3.615 billion in the week ended October 16, according to RBI data

41. Britain's first post BREXIT Deal

Britain and Japan have formally signed a trade agreement, marking the UK's first big post-Brexit deal

42. Asafoetida cultivation India

Asafoetida (Heeng) is endemic to Iran and Afghanistan, Heeng is not cultivated in India, It thrives in dry and cold desert conditions.India imports about 1,200 tonnes of raw heeng worth Rs 600 crore from Iran, Afghanistan and Uzbekistan. Now, scientists at CSIR-Institute of Himalayan Bioresource, Palampur (IHBT), has planted the first sapling in Himachal Pradesh's Kwaring village in Lahaul valley.

43. Japan CO2 emission

Japan, world's third largest economy and world's fifth-biggest emitter of CO2, vows to become carbon neutral by 2050

44. Sri Lanka Constitutional Amendment

The controversial 20th Amendment to Sri Lanka's Constitution that envisages expansive powers and greater immunity for the Executive President was passed in Parliament

45. PM SVANidhi Ranking

Uttar Pradesh government has secured the first rank in central government's the PM Atmanirbhar Nidhi Scheme (SVANidhi Scheme) by approving the highest number of loans under the scheme in the country.

46. Extension of ESI

Govt. of India has now extended the Employees' State Insurance (ESI) Scheme for the first time to Arunachal Pradesh, with effect from 1st November, 2020. All factories located in the district of Papum Pare of Arunachal Pradesh employing 10 or more persons shall become eligible for coverage under ESI Act 1948

47. CBSE's Facial Recognition System

The Central Board of Secondary Education (CBSE) has introduced 'facial recognition system' which will enable students to download their digital academic documents of classes 10, 12.

48. NASA's OSIRIS-REx

NASA's OSIRIS-REx — Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer — spacecraft briefly touched asteroid Bennu, from where it is meant to collect samples of dust and pebbles and deliver them back to Earth in 2023

49. Tribal Affairs Ministry initiatives

Union Minister of Tribal Affairs has launched two Centers of Excellence for Tribal Welfare in a collaboration between Ministry of Tribal Affairs and Art of Living (AoL)

The first initiative 'Strengthening PRIs (Panchayat Raj Institutions' will be launched in 5 districts of Jharkhand, in creating awareness among elected representatives of PRI about various Tribal Acts.

The second is about training 10000 tribal farmers in Aurangabad District of Maharashtra on sustainable natural farming based on Go-Adharith farming techniques.

50. Joginder War Memorial

Under the patronage of Arunachal Government, a War Memorial has been constructed at Bum La named Joginder War Memorial, Bum La is a border pass between Cona County (in Tibet) and Tawang district of Arunachal Pradesh (India).

UN @ 75

October 24,2020 marks the diamond jubilee of the United Nations.

UN:

→ The United Nations is an international organization founded in 1945.

→ It is currently made up of 193 Member States.

→ The name "United Nations", coined by United States President Franklin D. Roosevelt was first used in the Declaration by United Nations of 1 January 1942.

→ In 1945, representatives of 50 countries met in San Francisco at the United Nations Conference on International Organization to draw up the United Nations Charter.

→ The Charter was signed on 26 June 1945 by the representatives of the 50 countries.

→ The United Nations officially came into existence on 24 October 1945, when the Charter had been ratified by China, France, the Soviet Union, the United Kingdom, the United States and by a majority of other signatories.

→ United Nations Day is celebrated on 24 October each year.

→ The main organs of the UN are the
   o General Assembly,
   o The Security Council,
   o The Economic And Social Council,
   o The Trusteeship Council,

- o The International Court Of Justice, And
- o The Un Secretariat.
→ All were established in 1945 when the UN was founded.
→ Some important Funds and Programmes of UN Are
  - o The United Nations Development Programme, New York City, USA
  - o The United Nations Environment Programme, Nairobi, Kenya
  - o The United Nations Population Fund, New York City, USA
  - o UNICEF, New York City, USA
  - o World Food Programme, Rome, Italy
→ Some Important Specialized Agencies under UN Are
  - o Food and Agriculture Organization, Rome, Italy
  - o International Labor Organization, Geneva, Switzerland
  - o United Nations Educational, Scientific and Cultural Organization, Paris, France
  - o World Health Organization, Geneva, Switzerland
  - o World Intellectual Property Organization, Geneva, Switzerland
  - o World Bank, Washington, DC, USA
  - o International Monetary Fund, Washington, DC, USA
→ There are **six official languages of the UN. These are Arabic, Chinese, English, French, Russian and Spanish**.
→ To mark its 75th anniversary in 2020, the UN is igniting a people's debate: UN75.
→ Through UN75, the UN will encourage people to put their opinions together to define how enhanced international cooperation can help realize a better world by 2045

UNGA: UNITED NATIONS GENERAL ASSEMBLY:

The General Assembly is the main deliberative, policymaking and representative organ of the UN.

All 193 Member States of the UN are represented in the General Assembly, making it the only UN body with universal representation

UNSC: UNITED NATIONS SECURITY COUNCIL:

The Security Council has primary responsibility, under the UN Charter, for the maintenance of international peace and security.

It has 15 Members (5 permanent and 10 non-permanent members). Each Member has one vote

The five permanent members are Russia, the U.K., China, France and the United States

India has been elected for the non-permanent seat at the UN Security Council (UNSC) for a two-year term in 2021-22.

ECOSOC : THE UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL

The Economic and Social Council is the principal body for coordination, policy review, policy dialogue and recommendations on economic, social and environmental issues, as well as implementation of internationally agreed development goals.

It serves as the central mechanism for activities of the UN system and its specialized agencies in the economic, social and environmental fields, supervising subsidiary and expert bodies.

It has 54 Members, elected by the General Assembly for overlapping three-year terms.

It is the United Nations' central platform for reflection, debate, and innovative thinking on sustainable development.

TRUSTEESHIP COUNCIL :

The Trusteeship Council was established to provide international supervision for 11 Trust Territories that had been placed under the administration of seven Member States, and ensure that adequate steps were taken to prepare

the Territories for self-government and independence.

By 1994, all Trust Territories had attained self-government or independence.

The Trusteeship Council suspended operation on 1 November 1994.

By a resolution adopted on 25 May 1994, the Council amended its rules of procedure to drop the obligation to meet annually and agreed to meet as occasion required -- by its decision or the decision of its President, or at the request of a majority of its members or the General Assembly or the Security Council.

INTERNATIONAL COURT OF JUSTICE

The International Court of Justice is the principal judicial organ of the United Nations.

Its seat is at the Peace Palace in the Hague (Netherlands).

It is the only one of the six principal organs of the United Nations not located in New York (United States of America).

The ICJ has a bench of 15 judges to settle legal disputes submitted to it by States and to give advisory opinions on legal questions

Dalveer Bhandari, an Indian Justice, was re-elected as a judge to the International Court of Justice (ICJ) for the second term, he has been a judge from 2012
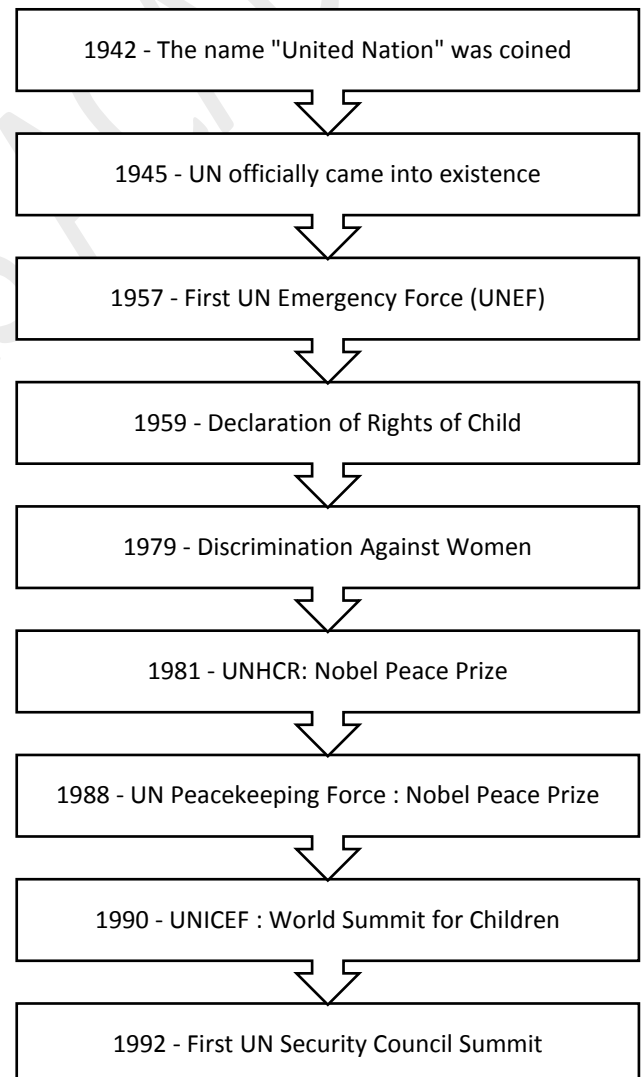
UN SECRETARIAT

The Secretariat comprises the Secretary-General and tens of thousands of international UN staff members who carry out the day-to-day work of the UN as mandated by the General Assembly and the Organization's other principal organs.

The Secretary-General is chief administrative officer of the Organization, appointed by the General Assembly on the recommendation of the Security Council for a five-year, renewable term

FAO@75

i. The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger.

ii. It was founded in **16th October 1945 and is headquartered in Rome**.

iii. Their goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.

iv. With over **194 member states**, FAO works in over 130 countries worldwide.

v. FAO is governed by a biennial conference representing each member country and the European Union, which elects a 49-member executive council

```
1942 - The name "United Nation" was coined
          ↓
1945 - UN officially came into existence
          ↓
1957 - First UN Emergency Force (UNEF)
          ↓
1959 - Declaration of Rights of Child
          ↓
1979 - Discrimination Against Women
          ↓
1981 - UNHCR: Nobel Peace Prize
          ↓
1988 - UN Peacekeeping Force : Nobel Peace Prize
          ↓
1990 - UNICEF : World Summit for Children
          ↓
1992 - First UN Security Council Summit
```

vi. The FAO is composed of **eight departments:** Agriculture and Consumer Protection, Climate, Biodiversity, Land and Water Department, Economic and

Social Development, Fisheries and Aquaculture, Forestry, Corporate Services and Technical Cooperation and Programme Management

vii. **World's first food Survey** was conducted by FAO in **1946**

viii. In **1950- World Census of Agriculture** was started

ix. FAO and the World Health Organization created the Codex Alimentarius Commission in 1961 to develop food standards, guidelines and texts such as codes of practice under the Joint FAO/ WHO Food Standards Programme.

x. In 1996, FAO organized the World Food Summit, attended by 112 Heads or Deputy Heads of State and Government. The Summit concluded with the signing of the Rome Declaration, which established the goal of halving the number of people who suffer from hunger by the year 2015

xi. FAO created the **International Plant Protection Convention or IPPC in 1952.** This international treaty organization works to prevent the international spread of pests and plant diseases in both cultivated and wild plants

xii. **State of Food Security and Nutrition** is one of the flagship publications of FAO

xiii. The Food and Agriculture Organization of the United Nations (FAO) leads the programme **Globally Important Agricultural Heritage Systems (GIAHS),** which helps identify ways to mitigate threats faced by these systems and their people and enhance the benefits derived from these dynamic systems. The systems in India which are designated as GIAHS are **Saffron Heritage of Kashmir , Koraput Traditional Agriculture and Kuttanad Below Sea Level Farming System**

xiv. **2020 is celebrated by FAO as International Year of Plant Health**

NOBEL PRIZES 2020

i. The Nobel Prize is not a single prize, but five separate prizes that, according to **Alfred Nobel's 1895** will, are awarded "to those who, during the preceding year, have conferred the greatest benefit to humankind".

ii. Nobel Prizes are awarded in the fields of Physics, Chemistry, Physiology or Medicine, Literature, and Peace

iii. Nobel Prizes were first awarded in 1901.

iv. In 1968, a sixth prize was established in the field of Economic Sciences; however, it is not considered a "Nobel Prize" but a "Nobel Memorial Prize"

v. Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, was established by the Bank of Sweden and was first awarded in 1969.

vi. The recipient of each Nobel Prize receives three things-
   a. A Nobel diploma, each of which is a unique work of art
   b. A Nobel medal
   c. A cash prize, which is split between winners when there is more than one.

vii. The Royal Swedish Academy of Sciences confers the prizes for physics, chemistry, and economics.

viii. The Karolinska Institute confers the prize for physiology or medicine, and the Swedish Academy confers the prize for literature.

ix. The Norwegian Nobel Committee based in Oslo confers the prize for peace.

NOBEL PRIZE PHYSICS 2020

The 2020 Nobel Prize for physics has been awarded to Roger Penrose for black hole discovery.

Reinhard Genzel and Andrea Ghez have also been jointly awarded the 2020 Nobel Prize for physics, for discovering a supermassive compact object at the centre of the galaxy.

Andrea Ghez is the fourth woman to receive the physics prize since 1901

What's is Blackhole?

Black hole is a region with extreme density, with an escape velocity so high that even light cannot escape it.

(Escape velocity is the speed at which an object must travel to overcome a planet or an object's gravitational force)

Black holes generally emerge from the explosive deaths of certain large stars. When large stars, exhaust their nuclear fuel, they experience an explosive collapse in their core, to produce a black hole.

Thus black hole is a point in space where matter is so compressed that it creates an extremely strong gravity field.

Roger Penrose:

Roger Penrose invented ingenious mathematical methods to explore Albert Einstein's general theory of relativity. He showed that the theory leads to the formation of black holes, those monsters in time and space that capture everything that enters them. Nothing, not even light, can escape.

Genzel and Ghez:

Reinhard Genzel and Andrea Ghez each lead a group of astronomers who have focused on a region at the centre of the Milky Way since the early 1990s. With increasing precision, they have mapped the orbits of the brightest stars that are closest to the centre. Both groups found something that is both invisible and heavy, forcing this jumble of stars to swirl around. This invisible mass has about four million solar masses squeezed together in a region no larger than our solar system. What is it that makes the stars at the heart of the Milky Way swing around at such astonishing speeds? According to the current theory of gravity, there is only one candidate – a supermassive black hole.

Image of Black Hole:

Sagittarius A* is one of two black holes whose photographs have been captured by the Event Horizon Telescope project.

Black holes do not emit or radiate anything, even light.

So, there is no way their image can be captured. But the area just outside its boundary, called the event horizon, which has vast amounts of gas, clouds and plasma swirling violently, does emit all kinds of radiations, even visible light.

Through a network of giant telescopes, scientists have collected radiations from outside the event horizon of the black hole, and recreate an image.

The black hole can be "seen" only because it is enclosed within a very bright, orange-red doughnut-shaped ring in the image.

IMAGE OF BLACKHOLE

NOBEL PRIZE CHEMISTRY 2020

2020 Nobel Prize in Chemistry was awarded to Emmanuelle Charpentier and Jennifer A. Doudna for development of a method for genome editing.

The CRISPR (short for Clustered Regularly Interspaced Short Palindromic Repeats) technology for gene-editing, their discovery, known as Crispr-Cas9, is a way of making specific and precise changes to the DNA contained in living cells.

With the help of Crispr-Cas9,in plant breeding, researchers can give plants specifc characteristics, such as the ability to withstand drought in a warmer climate.

In medicine, this gene editor is contributing to new cancer therapies and the first studies attempting to cure inherited diseases and so on

The technology replicates a natural defence mechanism in Streptococcus pyogenes that use a similar method to protect itself from virus attacks.

A DNA strand, when broken, has a natural tendency to repair itself but the auto-repair mechanism can lead to the re-growth of a problematic sequence.

Scientists intervene during this auto-repair process by supplying the desired sequence of genetic codes, which replaces the original sequence.

NOBEL PRIZE FOR MEDICINE 2020

American scientists Harvey J Alter and Charles M Rice and British-born scientist Michael Houghton jointly won the 2020 Nobel Prize for medicine/ physiology for their discovery of the hepatitis C virus.

Hepatitis refers to an inflammatory condition of the liver.

It's commonly caused by a viral infection, but there are other possible causes of hepatitis like autoimmune responses, medications, drugs, toxins, and alcohol.

There are 5 main hepatitis viruses, referred to as types A, B, C, D, and E

Hepatitis C virus is the cause of a vast majority of chronic hepatitis cases, or cases of serious liver inflammation, in patients who required blood transfusion.

Hepatitis C virus and liver diseases caused by it afflict over 70 million people and cause about 4,00,000 deaths each year.

About 6-11 million of the cases out of the total belong to India.

A vaccine for the Hepatitis C has still not been

developed mainly because it's a very fast-changing virus.

Before the discovery of the Hepatitis C virus, two other viruses were known to cause hepatitis in patients.

The Hepatitis A virus was known to spread mainly through contaminated food and water, and caused a relatively milder form of liver inflammation.

Hepatitis B, discovered in the 1960s, was known to transmit mainly through infected blood, and caused a more serious form of the disease.

Incidentally, the discovery of the Hepatitis B virus too was rewarded with a Nobel Prize in Medicine, given to Baruch Blumberg in 1976.

There are vaccines available for this disease now.

NOBEL PEACE PRIZE 2020

This year the Nobel Peace Prize was given to UN agency World Food Programme (WFP).
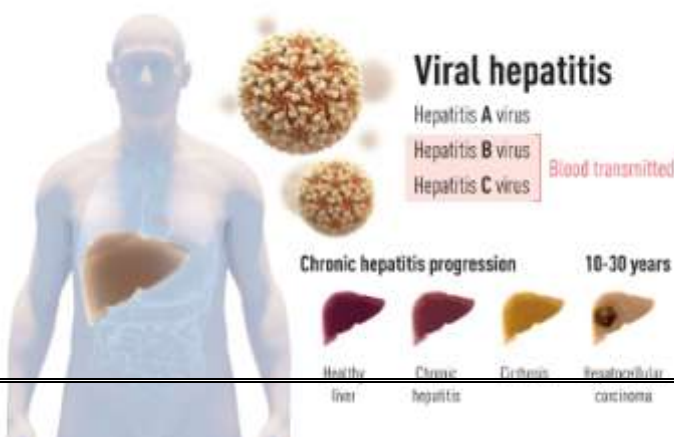
The agency was given the prize for its efforts to combat hunger and improve conditions for peace.

The Norwegian Nobel Committee highlighted the work done by the WFP to eradicate hunger and underlined its role in the wake of the Covid-19 outbreak especially in countries such as Yemen, the Democratic Republic of Congo, Nigeria, South Sudan and Burkina Faso

In 2019, the WFP provided assistance to close to 100 million people in 88 countries who are victims of acute food insecurity and hunger

In the face of the pandemic, the World Food Programme has demonstrated an impressive ability to intensify its efforts. As the organisation itself has stated, "Until the day we have a medical vaccine, food is the best vaccine against chaos."

World Food Programme was established in 1961 when then US President Dwight Eisenhower had suggested the idea of providing food aid through the UN system.

Colony, Anna Nagar, Chennai, Tamil Nadu 600040

Viral hepatitis

Hepatitis **A** virus
Hepatitis **B** virus
Hepatitis **C** virus   Blood transmitted

Chronic hepatitis progression   10-30 years

Healthy liver   Chronic hepatitis   Cirrhosis   Heptocellular carcinoma

By the Food and Agriculture Organisation (FAO) and the United Nations General Assembly (UNGA) and became a full-fledged UN programme in 1965.

It launched its first development programme in 1963 for Nubians in Sudan.

The WFP is headquartered in Rome, Italy

SVERIGES RIKSBANK PRIZE IN ECONOMIC SCIENCES 2020

Sveriges Riksbank Prize in Economic Sciences to Paul Milgrom and Robert Wilson.

The pair is receiving the award for improvements to "auction theory" and inventions of new auction formats

An auction is usually a process of buying and selling goods or services by inviting bids

auction theory is about how auctions lead to the discovery of the price of a commodity. It studies how auctions are designed, what rules govern them, how bidders behave and what outcomes are achieved.

As auctions help to sell a variety of products, a single auction design does not fit all types of commodities or sellers.

Three key variables need to be understood while designing an auction

1st Variable – Rules of an Auction

2nd Variable – Commodity/Service that is sold in the auction

3rd Variable – Uncertainity

Using auction theory, it is possible to explain how these three factors influence the bidders' strategic behaviour and thus the auction's outcome.

Wilson developed the theory for auctions of objects with a common value — a value which is uncertain before the auction but, in the end, is the same for everyone.

Wilson showed what the "winner's curse" is in an auction and how it affects bidding.

(The winner's curse is a tendency for the winning bid in an auction to exceed the intrinsic value or true worth of an item)

He developed a theory explaining the tendency of successful bidders to place bids lower than their own estimate of the item's value to themselves or other buyers, because they feared paying too much

Milgrom came up with a theory to deal with a mix of common and private value, and he examined the role of winner's curse in such instances.

He demonstrated that an auction format will give the seller higher expected revenue when bidders learn more about each other's estimated values during the bidding process.
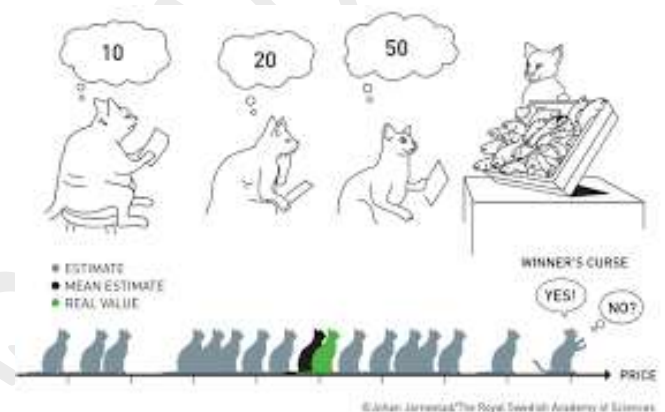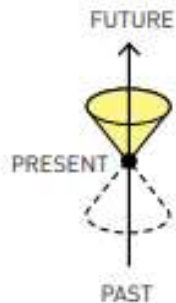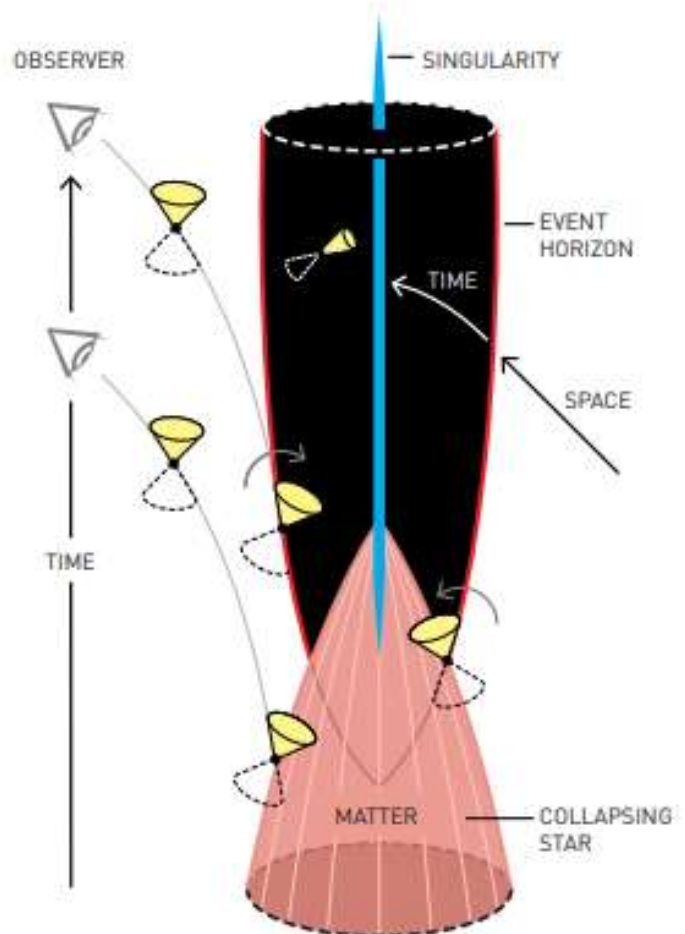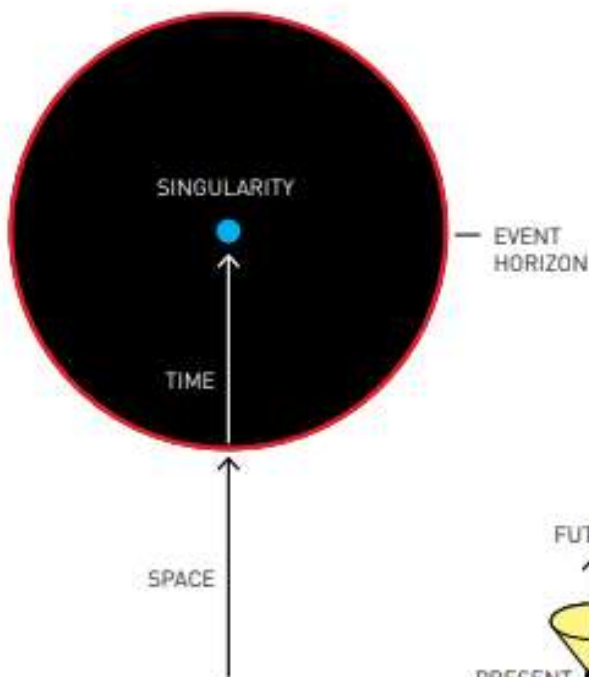

NOBEL PRIZE IN LITERATURE

The Nobel Prize in Literature 2020 has been awarded to the USA poet Louise Glück "for her unmistakable poetic voice that with austere beauty makes individual existence universal."

Her poetry focuses on the painful reality of being human, dealing with themes such as death, childhood, and family life.

Cross section of a black hole

When a massive star collapses under its own gravity, it forms a black hole that is so heavy that it captures everything that passes its event horizon. Not even light can escape. At the event horizon, time replaces space and points only forward. The flow of time carries everything towards a singularity furthest inside the black hole, where density is infinite and time ends.

OBSERVER

SINGULARITY

EVENT HORIZON

TIME

SPACE

SINGULARITY

EVENT HORIZON

TIME

SPACE

MATTER

COLLAPSING STAR

FUTURE

PRESENT

PAST

The light cone shows the paths of the light rays forward and backward in time. When matter collapses and forms a black hole, the light cones that cross the black hole's event horizon will turn inward, toward the singularity. An outside observer will never really see the light rays reach the event horizon, they just nudge it. No one can see further in.

The CRISPR/Cas9 genetic scissors

When researchers are going to edit a genome using the genetic scissors, they artificially construct a guide RNA, which matches the DNA code where the cut is to be made. The scissor protein, Cas9, forms a complex with the guide RNA, which takes the scissors to the place in the genome where the cut will be made.

GUIDE RNA

GENOME

Cas9
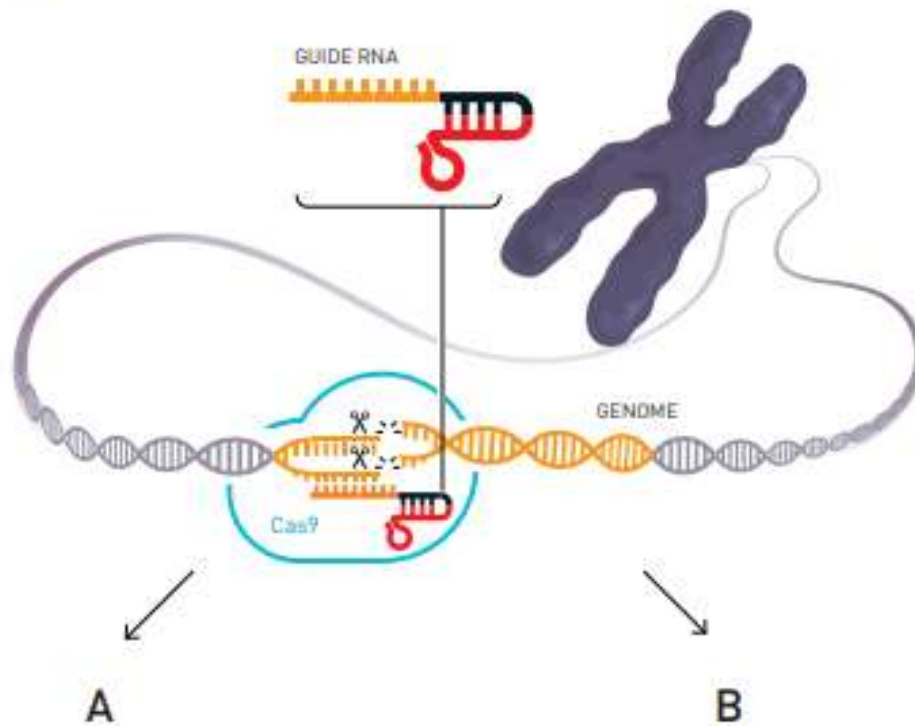
A

Researchers can allow the cell itself to repair the cut in the DNA. In most cases, this leads to the gene's function being turned off.

ERROR-PRONE REPAIR

B

If the researchers want to insert, repair or edit a gene, they can specially design a small DNA template for this. The cell will use the template when it repairs the cut in the genome, so the code in the genome is changed.
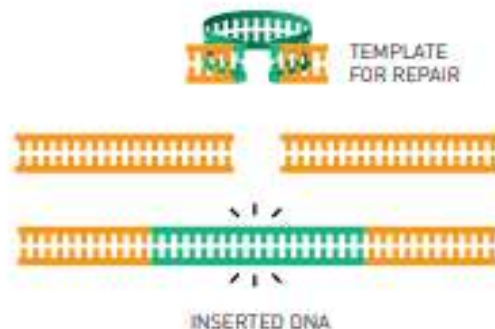
TEMPLATE FOR REPAIR

INSERTED DNA

Figure 3