

Current Affairs January 2022 Magazine

Science and Technology

Kala-Azar

Context: Jharkhand reported a death due to kala azar in the state, even as the total cases continue to decline.

About Kala Azar

- The Kala-azar is endemic to the Indian subcontinent in 119 districts in four countries (Bangladesh, Bhutan, India and Nepal).
- Kala-azar is a slow progressing indigenous disease caused by a protozoan parasite of genus Leishmania.
- In India Leishmania donovani is the only parasite causing this disease.
- This disease is the second-largest parasitic killer in the world. Elimination is defined as reducing the annual incidence of Kala Azar (KA) to less than 1 case per 10,000 people at the sub-district level.
- It is a neglected tropical disease affecting almost 100 countries.
- Neglected tropical diseases are a diverse group of communicable diseases that prevail in tropical and subtropical conditions in 149 countries.

BrahMos Supersonic Cruise Missile

Context: An extended range sea-to-sea variant of the BrahMos supersonic cruise missile was test fired from the recently commissioned stealth guided missile destroyer INS Visakhapatnam.

BrahMos supersonic cruise missile

- BRAHMOS is a joint venture between the Defence Research and Development Organisation of India (DRDO) and the NPOM of Russia.
- Brahmos is named on the rivers Brahmaputra and Moskva.
- The BrahMos is a medium-range ramjet supersonic cruise missile that can be launched from submarine, ships, aircraft, or land.
- It is the fastest supersonic cruise missile in the world.
- It is a two-stage (solid propellant engine in the first stage and liquid ramjet in second) air to surface missile with a flight range of around 300 km.
- However, India's entry into the Missile Technology Control Regime (MTCR) has extended the range of the BRAHMOS missile to reach 450 km-600km, a shade above its current MTCR capped range of 300 km.

- 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.

Russian-Indian BrahMos supersonic cruise missile



The BrahMos anti-ship missile was jointly developed by Russia's Engineering Research and Production Association (NPO) and the Indian Defense Ministry's Defense Research and Development Organization (DRDO)



Specifications

Lift-off weight:	3,000 kg (sea-launched version), 2,500 kg (air-launched version)
Warhead:	Up to 300 kg
Flight altitude	From 5 to 14,000 meters
Maximum speed:	Mach 2.8
Diameter:	70 cm
Wingspan:	1.7 meters
Range:	290 km

Designation

The missile is designed to hit all classes of warships
The missile is fired from mobile self-contained launchers installed onboard submarines, warships and fixed-wing aircraft

History and prospects

The BrahMos Aerospace Private Limited joint venture was established in 1998 and started working on the project
Twenty successful tests were conducted
The Indian Air Force has already adopted the missile
BrahMos Aerospace is ready to enter the international market. Prospective clients include 14 countries
The Indian Air Force requires 1,000 BrahMos missiles
In all, 2,000 Brahmos missiles can be exported
There are plans to develop the hypersonic BrahMos missile with a speed of Mach 5

The missile rapidly loses altitude while approaching its target and thus evades ship-based air-defense systems

The missile can hit a target of 1.5m x 1.5m at maximum range

Various flight paths

Name

The acronym **BrahMos** is an abbreviation of the names of two rivers, the Brahmaputra of India and the Moskva of Russia

CHANG'E-5 PROBE

Context: China's Chang'e 5 lunar probe finds first on-site evidence of water on moon's surface

About Chang'e-5 mission:

- The probe is named after the mythical Chinese moon goddess.
- **Objective:** To bring back lunar rocks, the first attempt by any nation to retrieve samples from the moon in four decades.
- The rocket is comprised of four parts:
 - an orbiter,
 - a returner,
 - an ascender
 - a lander.
- If successful, China will be only the third country to have retrieved samples from the moon, following the U.S. and the Soviet Union in the 1960s and 1970s.
- This will help scientists learn about the moon's origins, formation and volcanic activity on its surface.

Polity and Social Issues

NEET UG, PG COUNSELLING 2021

Context: Petitioners in the matter had challenged notification of the Medical Counseling Committee (MCC) providing 27 per cent reservation for OBCs and 10 per cent for the EWS category in the NEET-UG and PG (All India Quota).

What is the issue?

- The court also upheld the 27% reservation for the Other Backward Classes (OBC) and 10% for the Economically Weaker Sections (EWS) in the All India Quota (AIQ) seats in accordance with a July 29, 2021 government order.
- The ₹8 lakh gross annual family income limit criterion for identifying the EWS, as originally notified by a January 2019 official memorandum would be now implemented for the admission year 2021-2022.
- Courts upholds the validity of the 27% OBC reservation in AIQ seats in NEET-PG and NEET-UG admissions.

What is the All India Quota?

- The AIQ scheme was introduced in 1986 under the directions of the Supreme Court to provide for domicile-free, merit-based opportunities to students from any state to study in a good medical college in any other state.
- A student domiciled in Uttar Pradesh, for example, may be eligible for admission to a seat in a state government medical college in West Bengal, provided she scores high enough in the national merit list. If her score is not high enough for AIQ, she may still hope for admission under the state quota in her home state.
- In deemed/central universities, ESIC

Amar Jawan Jyoti Merged With National War Memorial

Context:

The government has put out the eternal flame of the Amar Jawan Jyoti underneath India Gate and merged it with the one instituted at the National War Memorial in 2019 a few hundred meters away.

About Amar Jawan Jyoti

- The flame of Amar Jawan Jyoti was established to pay tributes to the soldiers who had died in the 1971 war.
- It was inaugurated by Prime Minister Indira Gandhi.
- It was established in 1972 to mark the India's victory over Pakistan in the 1971 War, which resulted in the creation of Bangladesh.
- The key elements of the Amar Jawan Jyoti included a black marble plinth, a cenotaph, which acted as a tomb of the unknown soldier.
- The plinth had an inverted L1A1 self-loading rifle with a bayonet, on top of which was a soldier's war helmet. The installation had four urns on it, with four burners.
- On normal days one of the four burners were kept alive, but on important days like the Republic Day, all four burners were lit.
- These burners were what is called the eternal flame, and it was never allowed to be extinguished.
- Since 1972, when it was inaugurated, it used to be kept alive with the help of cylinders of liquified petroleum gas, or LPG. One cylinder could keep one burner alive for a day and a half.
- In 2006 fuel for the flames was changed from LPG to piped natural gas, or PNG.
- It is through this piped gas that the flame marking the tribute to Indian soldiers had been kept alive eternally.

National War Memorial:

- It was inaugurated in February 2019 by the Prime Minister of India and built over a 40-acre area close to India Gate.
- It is a national monument built to commemorate all the soldiers who have laid down their lives in the various battles, wars, operations and conflicts of Independent India.
- There are many independent memorials for such soldiers, but no memorial existed commemorating them all at the national level.
- The names of armed forces personnel killed during the armed conflicts with Pakistan and China as well as the 1961 War in Goa, Operation Pawan and other operations such as Operation Rakshak are inscribed on the memorial walls in golden letters.
 - This allows the near and dear ones of

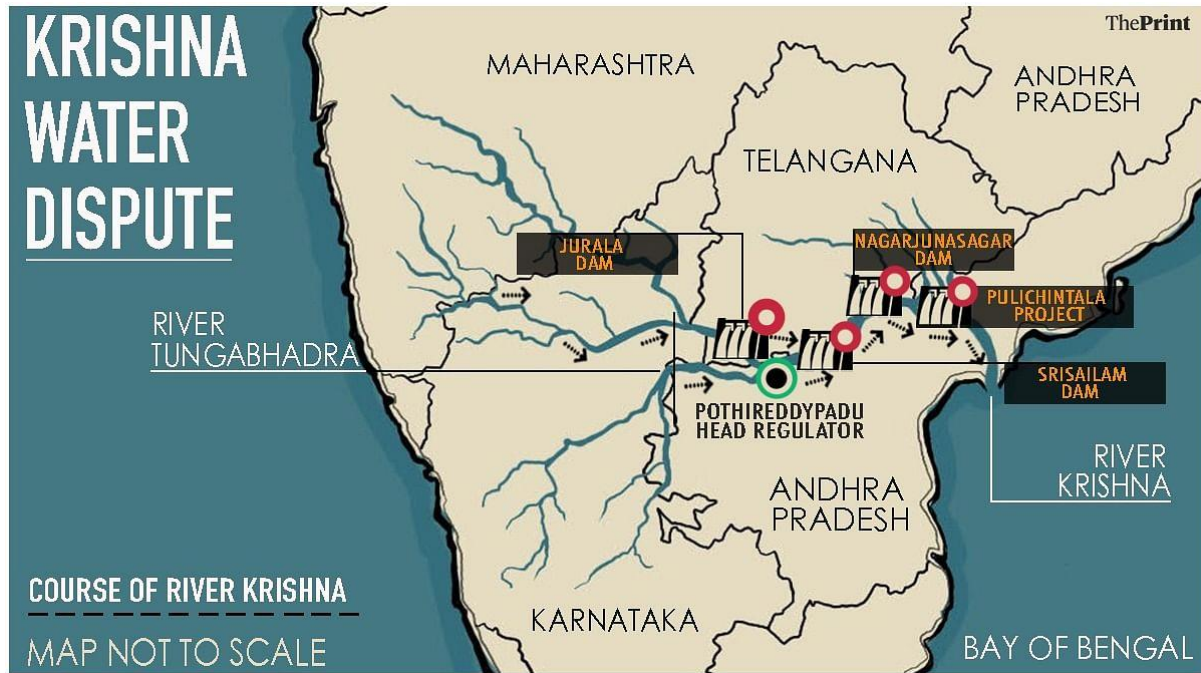
Krishna Water Dispute

Context

Recently, two judges of the Supreme Court have recused themselves from hearing a matter related to the distribution of Krishna water dispute between Andhra Pradesh, Telangana, Maharashtra and Karnataka.

About Krishna River

- **Source:** It originates near Mahabaleshwar (Satara) in Maharashtra. It is the second biggest river in peninsular India after the Godavari River.
- **Drainage:** It runs from four states Maharashtra (303 km), North Karnataka (480 km) and the rest of its 1300 km journey in Telangana and Andhra Pradesh before it empties into the Bay of Bengal.
- **Tributaries:** Tungabhadra, Mallaprabha, Koyna, Bhima, Ghataprabha, Yerla, Warna, Dindi, Musi and Dudhganga.



Constitutional Provisions

Article 262(1) provides that Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter State river or river valley.

Article 262(2) empowers Parliament with the power to provide by law that neither the Supreme Court nor any other court shall exercise jurisdiction in respect of any such dispute or complaint.

legal provisions

River Boards Act 1956: It was enacted with a declaration that centre should take control of regulation and development of Inter-state rivers and river valleys in public interest. However, not a single river board has been constituted so far.

The Interstate River Water Disputes Act, 1956 (IRWD Act) confers a power upon union government to constitute tribunals to resolve such disputes. It also excludes jurisdiction of Supreme Court over such disputes.

Recusal of Judges

It is the act of abstaining from participation in an official action such as a legal proceeding due to a conflict of interest of the presiding court official or administrative officer.

When there is a conflict of interest, a judge can withdraw from hearing a case to prevent creating a perception that he carried a bias while deciding the case.

UNIFORM CIVIL CODE

Context: The centre has told Delhi High Court that it is a matter of policy for elected representatives of the people to decide, and no direction in this regard can be issued by the court.

What is Uniform Civil Code (UCC)?

- The Uniform Civil Code (UCC) in India proposes to replace the personal laws based on the scriptures and customs of each major religious community in the country with a common set governing every citizen.
- The constitution has a provision for Uniform Civil Code in Article 44 as a Directive Principle of State Policy which states that “The State shall endeavor to secure for the citizens a uniform civil code throughout the territory of India.”
- Article 44 is one of the Directive Principles of State Policy.
- These, as defined in Article 37, are not justiciable (not enforceable by any court) but the principles laid down therein are fundamental in governance.
- Fundamental Rights are enforceable in a court of law.
- While Article 44 uses the words “state shall endeavour”, other Articles in the ‘Directive Principles’ chapter use words such as “in particular strive”; “shall in particular direct its policy”; “shall be obligation of the state” etc.

Suspension of MLAs

Context: The Supreme Court revoked the one-year suspension of 12 MLAs from the Maharashtra Assembly.

What was the plea before the Supreme Court?

- On July 5, 2021, soon after the Assembly met for its two-day monsoon session, there was commotion as Leader of Opposition Devendra Fadnavis (BJP) objected to an attempt by state minister Chhagan Bhujbal (NCP) to table a resolution demanding that the Centre release data on Other Backward Classes (OBCs), so that seats could be reserved for them in local bodies in Maharashtra.

What are the rules on the length of suspension of a Member of Parliament?

- Rules 373, 374, and 374A of the Rules of Procedure and Conduct of Business in Lok Sabha provide for the withdrawal of a member whose conduct is “grossly disorderly”, and suspension of one who abuses the rules of the House or willfully obstructs its business.
- The maximum suspension as per these Rules is “for five consecutive sittings or the remainder of the session, whichever is less”.
- The maximum suspension for Rajya Sabha under Rules 255 and 256 also does not exceed the remainder of the session. Several recent suspensions of members have not continued beyond the session.
- Similar Rules also are in place for state legislative assemblies and councils which prescribe a maximum suspension not exceeding the remainder of the session.

PASSPORT SEVA PROGRAMME

Context: The government of India has announced that it will soon start issuing ePassports to citizens applying for a new passport or renewing their expiring passport.

What is an ePassport?

- An ePassport or electronic passport or biometric passport is one that incorporates an electronic chip with a biometric identifier.
- The passports of all countries are obliged to follow the UN’s International Civil Aviation Organisation (ICAO) standard, though the countries can make some choices.
- In 2016, the ICAO made a new rule that newly issued passports must be Machine-Readable Travel Documents (MRTD); i.e., the passports should have two lines at the bottom of the first page that have the details of the holder.
- **Countries with ePassports**
- According to ICAO, currently over 100 states and organisations like the United Nations issue ePassports. Countries like Zimbabwe, Malawi, Ireland along with India’s neighbours Pakistan, Nepal and Bangladesh have moved to implement ePassports.
- According to the research by Allied Market Research, the global ePassport market will be worth \$97.6 billion by 2021.

What are the benefits of the change?

- With biometric data, the security of the passport is higher than the traditional paper booklet. Officials say that the forgery of the passport can also be controlled. The ePassports will enable a smoother transition through immigration.

- India is in the 90th position globally concerning the number of places its citizens can access with a prior visa, as depicted by the records of the Henley Passport Index for 2021. Thus, the increased security can allow the acceptance into more countries without a prior visa.
- Moreover, unauthorised data transfer can also be blocked through radio-frequency identification or RFID.
- With many of the population, especially the youth migrating abroad, this decision can make passport access easier. The government has also launched the mPassport Seva app, making everything from passport applications to registering changes hassle-free.
- Though the government had plans to issue ePassports in 2021, it was delayed. The application process for the passports will be the same as the current method of obtaining traditional passports.

Passport Seva Programme (PSP):

- The Passport Seva Programme (PSP) Division of the Ministry of External Affairs, Government of India, provides passport services through the Central Passport Organization (CPO) and its network of Passport Offices, Passport Seva Kendras (PSKs); and Post Office Passport Seva Kendras (POPSKs).
- It is one of the several Mission Mode Projects (MMPs) of India.

MEKEDATU PROJECT

Context: Opposition seeks early implementation of the Mekedatu drinking water project.

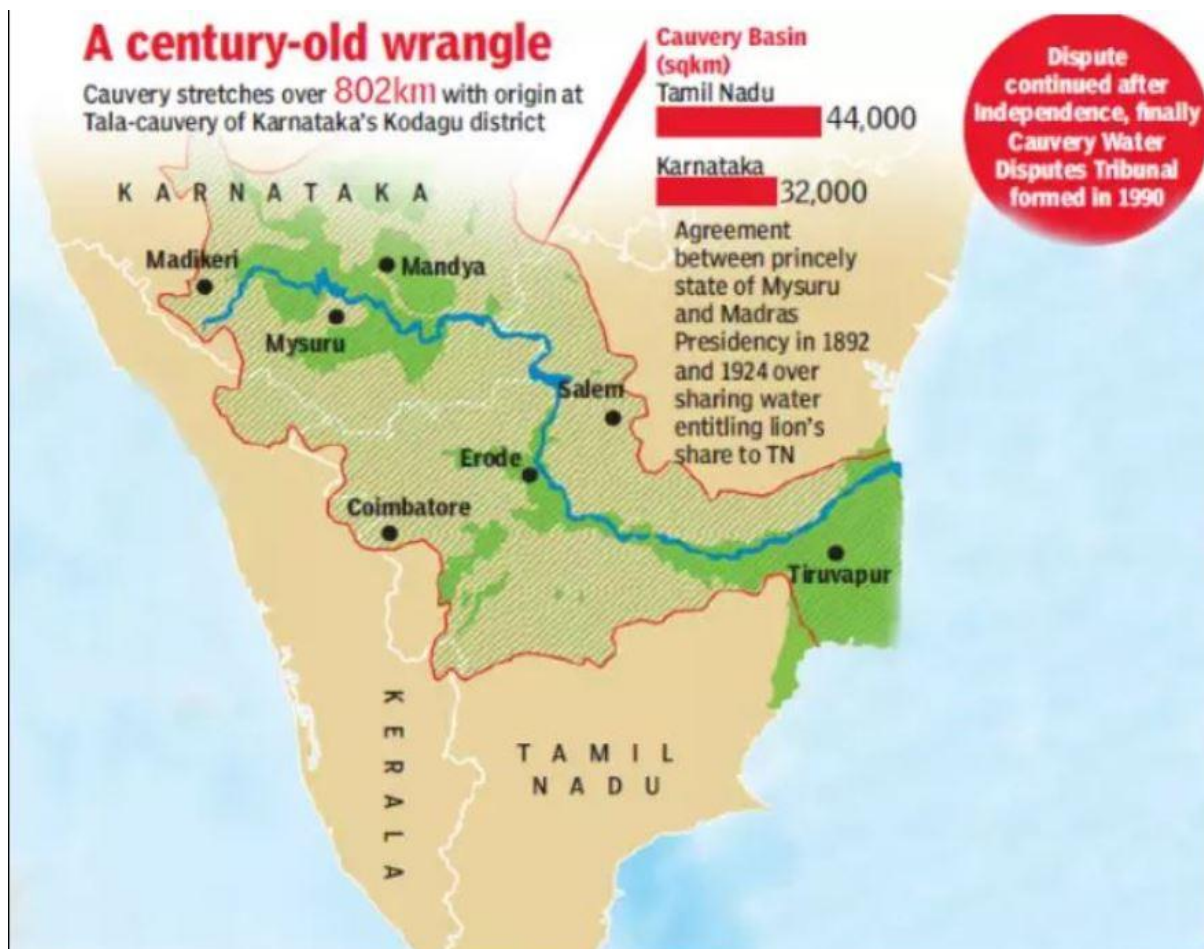
Mekedatu

- Mekedatu is a location along Kaveri in the border of Chamarajanagar and Ramanagara Districts. Sangama is the place where Arkavati merges with Kaveri.
- At Mekedaatu, the Kaveri runs through a deep, narrow ravine of hard granite rock.
- The water flows very fast through the gorge, gouging pits in the rocky riverbed.

About the Cauvery River

- The Cauvery River (Kaveri), designated as the ‘Dakshina Ganga’ or ‘the Ganga of the South’, flows in a southeasterly direction through the states of Karnataka and Tamil Nadu and descends the Eastern Ghats in a series of great falls.

- Before emptying into the Bay of Bengal south of Cuddalore, Tamil Nadu the river breaks into a large number of distributaries forming a wide delta called the “Garden of Southern India”
- The Cauvery basin extends over states of Tamil Nadu, Karnataka, Kerala, and Union Territory of Puducherry draining an area of 81 thousand Sq.km.
- It is bounded by the Western Ghats on the west, by the Eastern Ghats on the east and the south, and by the ridges separating it from the Krishna basin and Pennar basin on the north.
- The Nilgiris, an offshore of Western ghats, extend Eastwards to the Eastern ghats and divide the basin into two natural and political regions i.e., Karnataka plateau in the North and the Tamil Nadu plateau in the South.



Cauvery Water Management Authority (CWMA)

- CWMA has been created as per the Cauvery Management Scheme framed by Centre and approved by Supreme Court.
- The Cauvery Management Scheme deals with release of water from Karnataka to Tamil Nadu, Kerala and Puducherry.
- It will be implemented by Cauvery Management Authority (CMA).

CITIZENSHIP AMENDMENT ACT 2019

Context: The Ministry of Home Affairs (MHA) did not notify the Citizenship (Amendment) Act, 2019 rules till 9 January 2022, the third extended deadline after the Act was passed. It was the last day of an extension it sought from the two parliamentary committees in the Lok Sabha and the Rajya Sabha to frame the rules.

Citizenship (Amendment) Act, 2019 (CAA)

- The Citizenship (Amendment) Act, 2019 (CAA) was notified in December 2019 and came into force from January 2020, amending the Citizenship Act, 1955.
- The Citizenship Act, 1955 provides various ways in which citizenship may be acquired: providing for citizenship by birth, descent, registration, naturalisation and by incorporation of the territory into India.
- The objective of the CAA is to grant Indian citizenship to persecuted minorities — Hindu, Sikh, Jain, Buddhist, Parsi and Christian — from Pakistan, Bangladesh and Afghanistan.
- Those from these communities who had come to India till December 31, 2014, facing religious persecution in their respective countries, will not be treated as illegal immigrants but given Indian citizenship.

What is the National Population Register (NPR)?

- The NPR is a database of usual residents in the country who have stayed in a local area for the past six months or more and who intend to remain in the same place for the next six months or more.
- The NPR is individual and identity specific unlike the Census which only provides information on the status of the residents of India and population swings.
- The NPR database was first created in 2010.
- The data collection is done under the aegis of the Office of the Registrar General and Census Commissioner of India.
- The NPR is undertaken under the provisions of The Citizenship Act, 1955 and The Citizenship (Registration of Citizens and issue of National Identity Cards) Rules, 2003.
- The NPR was last updated, except in Assam and Meghalaya, in 2015-16.

Ken-Betwa River interlinking: Panna tiger reserve at risk

Context:

The Ken-Betwa River Interlinking (KBRIL) Project will lead to the submergence of a major portion of the core area of the Panna Tiger Reserve in Madhya Pradesh, triggering a major loss of the tiger and its major prey species such as chital and sambar, according to a new study.

Interlinking of Rivers

- In 1858, Arthur Cotton (British general and irrigation Engineer) came up with even more ambitious proposals such as connecting all major rivers of India, and interlinking of canals and rivers. He suggested drought-relief measures for Odisha.
- The National River Linking Project (NRLP) formally known as the National Perspective Plan, envisages the transfer of water from water 'surplus' basins where there is flooding, to water 'deficit' basins where there is drought/scarcity, through inter-basin water transfer projects.
- The interlinking of river project is a Civil Engineering project, which aims to connect Indian rivers through reservoirs and canals.
- The farmers will not have to depend on the monsoon for cultivation and also the excess or lack of water can be overcome during flood or drought.
- Since the 1980s, the interlinking project has been managed by India's National Water Development Agency (NWDA) under the Ministry of Water Resources.

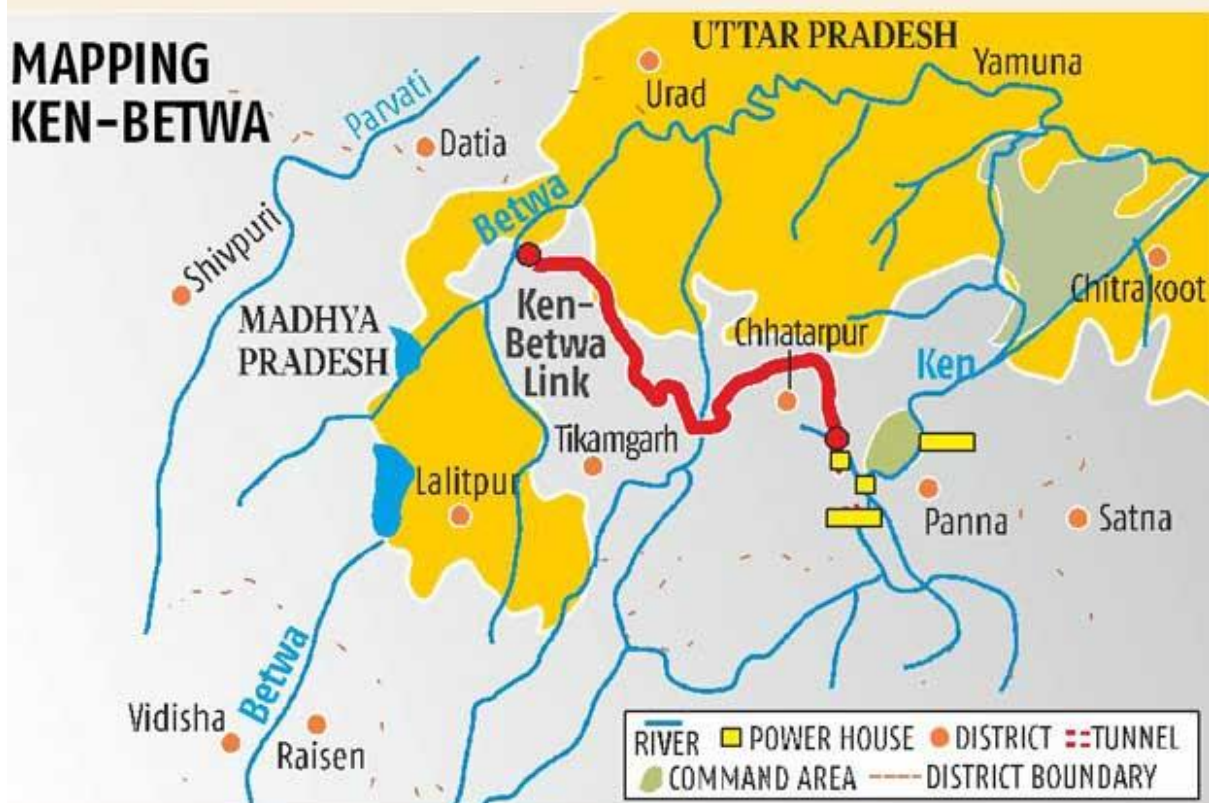
It has been split into three parts as follows:

1. A northern Himalayan river interlink component.
2. A southern peninsular component.
3. An Intra-State river linking component.

What is the Ken-Betwa Link Project?

- The Ken-Betwa Link Project is the first project under the National Perspective Plan for interlinking of rivers.
- KBRIL is a river-interlinking project that aims to transfer surplus water from the Ken river in Madhya Pradesh to Betwa in Uttar Pradesh to irrigate the drought-prone Bundelkhand region.
- Both Ken and Betwa are the tributaries of the Yamuna.
- The Ken-Betwa Link Canal will be 221 km long, including a 2-km long tunnel.
- According to the statement, a Special Purpose Vehicle (SPV) called Ken-Betwa Link Project Authority (KBLPA) will be set up to implement the project.
- In fact, the Centre has set in motion the process of creation of National Interlinking of Rivers Authority (NIRA), an independent autonomous body for planning, investigation, financing and implementation of the interlinking of river (ILR) projects in the country.
- The NIRA will have powers to set up SPV for individual link projects.

MAPPING KEN-BETWA



Panna National Park

- Panna National Park was established in 1981 – located in Panna and Chhatarpur districts of Madhya Pradesh – and was declared a Project Tiger Reserve in the year 1994 by the Central Government.
- UNESCO designated the Panna Tiger Reserve as a Biosphere Reserve in 2011.
- In 2021, Panna Tiger Reserve was awarded the Conservation Assured Tiger Standards (CAITS) certificate by the National Tiger Conservation Authority for meeting the established international standards for tiger conservation and management.
- The forests of Panna National Park along with Ken Gharial Sanctuary and adjoining territorial divisions form **a significant part of the catchment area of the Ken River**, which runs northeast for about 72 km through the park.

HC allows woman to terminate 28-week pregnancy

Context:

The Delhi High Court has said that reproductive choice is a facet of reproductive rights of a woman and a dimension of her 'personal liberty', while allowing a woman to terminate her 28 weeks' pregnancy as the foetus suffers from a rare congenital heart disease.

The Medical Termination of Pregnancy Act, 1971

- The Medical Termination of Pregnancy (MTP) Act, 1971 provides the legal framework for making CAC services available in India.
- Termination of pregnancy is permitted for a broad range of conditions up to 20 weeks of gestation as detailed below:
 1. When continuation of pregnancy is a risk to the life of a pregnant woman or could cause grave injury to her physical or mental health;
 2. When there is substantial risk that the child, if born, would be seriously handicapped due to physical or mental abnormalities;
 3. When pregnancy is caused due to rape (presumed to cause grave injury to the mental health of the woman);
 4. When pregnancy is caused due to failure of contraceptives used by a married woman or her husband (presumed to constitute grave injury to mental health of the woman).
- The MTP Act specifies
 - who can terminate a pregnancy;
 - till when a pregnancy can be terminated; and
 - where can a pregnancy be terminated.

Medical Termination of Pregnancy Amendment Act, 2021

- The Act increases the gestation period of women seeking abortion up from 20 weeks to 24 weeks – It allows abortion to be done on the advice of one doctor up to 20 weeks, and two doctors in the case of certain special categories of women between 20 and 24 weeks.
- The “special categories of women” include rape survivors, victims of incest, the differently-abled and minors.
- In case of the gestational period beyond 24 weeks, pregnancy may be terminated only in cases of substantial foetal abnormalities diagnosed by the Medical Board or if there is a threat to the life of the mother.
- Opinion of only one provider will be required up to 20 weeks of gestation and two providers for termination of pregnancy of 20-24 weeks of gestation.
- Under the Act, a pregnancy may be terminated up to 20 weeks by a married woman in the case of failure of contraceptive method or device. It allows unmarried women to also terminate a pregnancy for this reason.
- All state and union territory governments will constitute a Medical Board. The Board will decide if pregnancy may be terminated after 24 weeks due to substantial foetal abnormalities.

Anniversary of One Nation-One Grid-One Frequency

Context: As part of the Azadi Ka Amrit Mahotsav, POWERGRID is commemorating landmark achievement of completion of One Nation-One Grid-One Frequency.

One Nation-One Grid-One Frequency

- ‘One Nation, One Grid, One Frequency’ was achieved in 2013 when the southern Region was connected to the Central Grid and hence, all 5 regional grids are synchronously connected forming a central grid operating at one frequency –
 1. North Eastern and Eastern grids (Connected in 1991)
 2. Western region grid (Connected in 2003)
 3. North Grid (Connected in 2006)
 4. East Grid (Connected in 2006)
 5. South Grid (Connected in 2013)
- All possible measures are taken to ensure that the grid frequency always remains within the 49.90-50.05 Hz (hertz) band.
- Further, this paved the way for establishment of a vibrant Electricity market facilitating trading of power across regions.

Environment and biodiversity

GHARIALS

About Gharials:

- The gharials is the longest of all living crocodilians and are also known as the gavial.
- These are the type of Asian crocodilian distinguished by their long, thin snouts.
 - Crocodilians are a group of reptiles that includes crocodiles, alligators, caimans, and more.
- It currently inhabits rivers in the plains of the northern part of the Indian subcontinent
- The Chambal river in the northern slopes of the Vindhya mountains is known as the primary habitat of gharials



Conservation status:

IUCN Red List	Critically Endangered
CITES	Appendix I
Wildlife Protection Act, 1972	Schedule I

RED SANDERS

Context: Red Sanders falls back in IUCN's 'endangered' category.

About Red Sanders

- Red Sanders (Red sandalwood or Saunderswood)
- The scientific name for Red Sanders is *Pterocarpus santalinus*.
- The species is endemic to a distinct tract of forests in Andhra Pradesh.
- It grows in rocky, degraded and fallow land with Red soil.



Conservation status

- It is listed as an Endangered Species by the IUCN because of overexploitation of its timber in South India.
- It was classified as 'near threatened' in 2018 and has now joined the 'endangered' list once again in 2021.
- It is also listed in the appendix II of the CITES which means that a certificate is required in order to export it.
- Certificate is granted only if the trade is not detrimental to the survival of the species.

About the IUCN and its Red list

- Established in 1964, the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species has evolved to become the world's most comprehensive information source on the global extinction risk status of animal, fungus and plant species.

Takeaways from Forest Report

Context: The Ministry of Environment, Forests and Climate Change (MoEFCC) released the India State of Forest Report (ISFR) 2021.

What is the India State of Forest Report?

- It is an assessment of India's forest and tree cover, published every two years by the Forest Survey of India under the Ministry of Environment, Forests and Climate Change.
- The first survey was published in 1987, and ISFR 2021 is the 17th.

- India is one of the few countries in the world that brings out such an every two years, and this is widely considered comprehensive and robust.
- With data computed through wall-to-wall mapping of India's forest cover through remote sensing techniques, the ISFR is used in planning and formulation of policies in forest management as well as forestry and agroforestry sectors.

ISFR 2021: What are the key findings?

- ISFR 2021 has found that the forest and tree cover in the country continues to increase with an additional cover of 1,540 square kilometres over the past two years.
- India's forest cover is now 7,13,789 square kilometres, 21.71% of the country's geographical area, an increase from 21.67% in 2019. Tree cover has increased by 721 sq km.
- The states that have shown the highest increase in forest cover are Telangana (3.07%), Andhra Pradesh (2.22%) and Odisha (1.04%).
- Five states in the Northeast – Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Nagaland have all shown loss in forest cover.

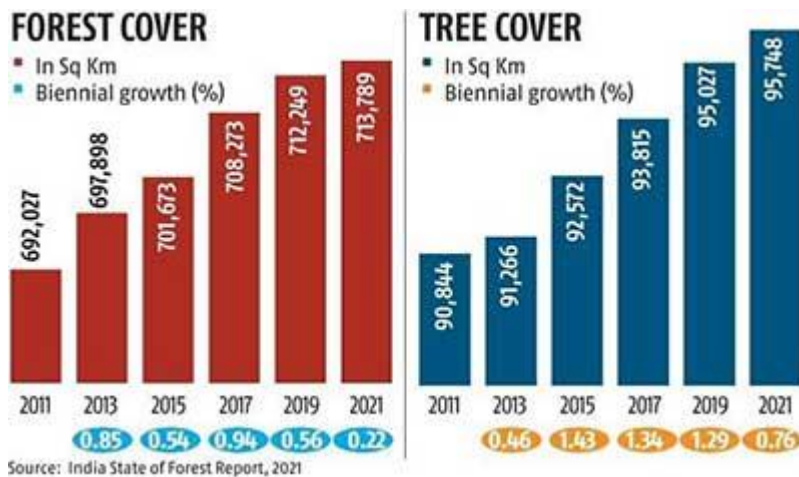
NE STATES LOSS IN FOREST COVER

Loss over last assesment period (in sq km)

	2015	2017	2019	2021
Arunachal Pradesh	73	190	276	257
Assam	48	(+)567	(+)222	15
Manipur	(+)4	(+)263	499	249
Meghalaya	71	116	27	73
Mizoram	306	531	180	186
Nagaland	78	450	3	235
Sikkim	1	9	2	1
Tripura	55	164	0	4

All data is the loss/decline in forest area, except for the figures marked (+) show which indicate increase

- Mangroves have shown an increase of 17 sq km. India's total mangrove cover is now 4,992 sq km.
- The survey has found that 35.46 % of the forest cover is prone to forest fires. Out of this, 2.81 % is extremely prone, 7.85% is very highly prone and 11.51 % is highly prone
- The total carbon stock in country's forests is estimated at 7,204 million tonnes, an increase of 79.4 million tonnes since 2019.
- Bamboo forests have grown from 13,882 million culms (stems) in 2019 to 53,336 million culms in 2021.



ACTION PLAN FOR INTRODUCTION OF CHEETAH IN INDIA

Context:

‘Action Plan for Introduction of Cheetah in India’ was launched at the 19th meeting of the National Tiger Conservation Authority (NTCA).

About Reintroduction Action Plan:

- ‘Reintroduction’ of a species means releasing it in an area where it is capable of surviving.
- Reintroductions of large carnivores have increasingly been recognised as a strategy to conserve threatened species and restore ecosystem functions.
- The cheetah is the only large carnivore that has been eliminated, mainly by over-hunting in India in historical times.
- the ministry will be translocating around 8-12 cheetahs from South Africa, Namibia and Botswana with help from the Wildlife Institute of India and the Wildlife Trust of India, .

- The big cats will live at Kuno Palpur National Park (Madhya Pradesh) owing to its suitable habitat and adequate prey base.

About the National Tiger Conservation Authority (NTCA)

- The National Tiger Conservation Authority (NTCA) was established in December 2005 following a recommendation of the Tiger Task Force, constituted by the Prime Minister of India for reorganised management of Project Tiger and the many Tiger Reserves in India.
- The Wildlife Protection Act of 1972 was amended in 2006 to provide for constituting the National Tiger Conservation Authority responsible for implementation of the Project Tiger plan to protect endangered tigers.
- The National Tiger Conservation Authority is set up under the Chairmanship of the Minister for Environment and Forests.

India has conducted its first leopard census and come out with a count of the feline species this month. Leopards are found pan-India, except deserts and the marshy Sunderbans, unlike the other big cats. Here's knowing leopards better without getting too close to them

India is the only country in the world to boast of five big cat species: the lion, tiger, Indian leopard, snow leopard and the clouded leopard

Indian leopard



Status | Near threatened. It is also called the common leopard. According to WWF, "within the 17 tiger-bearing states, the leopard occupies nearly double the area occupied by tigers"

Fast facts

- Leopards don't need much water. They survive from the moisture they get from eating their prey
- Leopards are great hunters and can run at a speed of 58kmph, jump forward 20 feet and leap 10 feet straight up
- Leopards are able to climb trees, even when carrying heavy prey. One reason why they sometimes take their prey up in the trees is to ensure lions or hyenas can't steal them
- Leopards can hear up to five times better than the average human
- Though classified as a roaring cat, leopards usually bark when they have something to say
- A leopard's spots are called rosettes because they look like roses. Their pattern is unique for every individual leopard, much like a human's fingerprints
- Black panthers actually leopards with melanism – wherein the entire coat of the animal, including the spots, is black – and not separate species as they are widely believed to be

Wild Love

During the National Geographic programme, 'Eye of the Leopard', a wild leopard killed a baboon in order to feed herself. However, upon noticing an infant baboon clinging to the dead baboon, the leopard amazingly carried the infant up to the safety of the tree to guard her from hyenas. She groomed and cuddled the baby throughout the night, caring for him/her as she would her own cub



Kaziranga elevated corridor plan

Context:

The Assam government is awaiting the Centre's clearance for an elevated road over nine corridors used by the animals of the Kaziranga National Park and Tiger Reserve usually during high floods.

About the impact of Roads on Wildlife

- The impact of road developments on biodiversity has become one of the central environmental issues when planning for road infrastructure as India's protected areas have increasingly come under pressure from an ever-increasing infrastructure network —161 wild animals were killed in road or train accidents in 2018.
- Linear infrastructures like roads and railways potentially fragment the habitat of wild animals and act as epicentres of fatal accidents for innumerable wild species, small and big.

How does it affect animals?

- The impact of road developments on biodiversity has become one of the central environmental issues when planning for road infrastructure.
- Wild animals are vulnerable to vehicular traffic passing through forests, especially at night when, blinded by bright headlights, even swift species like cats freeze.
- Over time, as animals learn to avoid roads, busy multilane highways become barriers that hinder wildlife movement, fragment populations, and restrict gene flow.
- By blocking access to potential habitats, roads, railway lines and irrigation canals act as a major contributor to habitat loss.

Economy

COLLECTIVE SECURITY TREATY ORGANIZATION

Context: Recently, Kazakhstan's President called on the Collective Security Treaty Organization (CSTO) to help manage ongoing protests in the country.

About Collective Security Treaty Organization:

- It is an intergovernmental military alliance (six countries) that came into effect in 2002.
- It started storming into Kazakhstan to curb the protests which threatened the very existence of the regime that has ruled the Central Asian country since it became an independent republic in 1991.
- The headquarters is located in the Russian capital of Moscow.
- Current members are Armenia, Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation and Tajikistan.
- Objectives: To strengthen peace, international and regional security including cybersecurity and stability, the protection on a collective basis of the independence, territorial integrity and sovereignty of the member states.

FOREIGN DIRECT INVESTMENT

Context: Outward foreign direct investment (FDI) by Indian companies fell by over 8% to \$2.05 billion in December in the current fiscal.

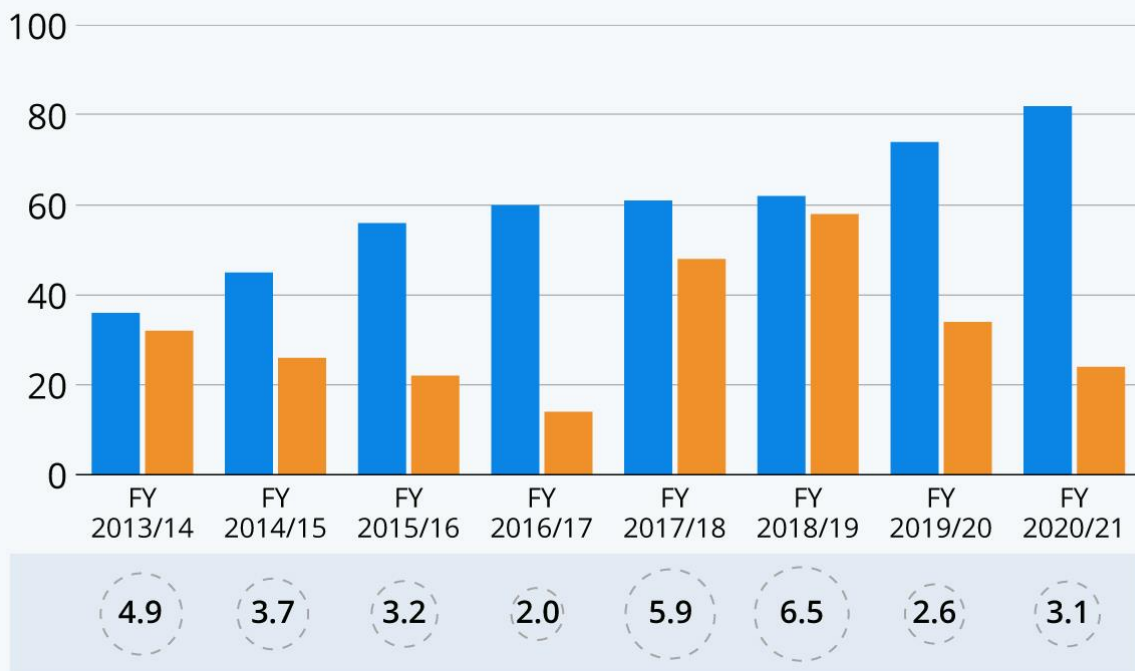
About Foreign Direct Investment (FDI)

- Foreign Direct Investment (FDI) is an investment in the form of a controlling ownership in a business in one country by an entity based in another country. It is thus distinguished from a Foreign Portfolio Investment by a notion of direct control.
- FDI may be made either “inorganically” by buying a company in the target country or “organically” by expanding the operations of an existing business in that country.
- Broadly, FDI includes “mergers and acquisitions, building new facilities, reinvesting profits earned from overseas operations, and intra company loans”. In a narrow sense, it refers just to building a new facility, and lasting management interest.

India FDI Inflow Rises But Fails to Aid Capital Formation

FDI inflow and contribution of capital inflows to capital formation in India (in billion U.S. dollars)

- Foreign direct investment into India
- Net inflow contributing to gross capital formation
- Net inflow as share of gross capital formation (in %)



Sources: Central Statistics Office, Reserve Bank of India, Deloitte



statista

FDI in India

- Foreign Direct Investment (FDI) is a major driver of economic growth and an important source of non-debt finance for the economic development of India.
- It has been the endeavor of the Government to put in place an enabling and investor friendly FDI policy. The intent all this while has been to make the FDI policy more investor friendly and remove the policy bottlenecks that have been hindering the investment inflows into the country.

- The steps taken in this direction during the last six years have borne fruit as is evident from the ever-increasing volumes of FDI inflows being received into the country. Continuing on the path of FDI liberalization and simplification, Government has carried out FDI reforms across various sectors.

FDI Routes in India

- Foreign investment was introduced in 1991 under Foreign Exchange Management Act (FEMA), driven by then FM Manmohan Singh.
- There are three routes through which FDI flows into India. They are described in the following table:

Category 1	Category 2	Category 3
100% FDI permitted through Automatic Route	Up to 100% FDI permitted through Government Route	Up to 100% FDI permitted through Automatic + Government Route

BusinessToday.In

SECTORS ATTRACTING HIGHEST FDI

	Inflow (₹ cr)	%age of total inflows
Services	5,00,505	16
Computer software & hardware	4,57,476	13
Telecommunication	2,21,816	7
Trading	1,91,945	6
Construction development	1,25,990	5
Automobile	1,52,553	5
Construction activity	1,61,337	5
Chemicals	1,04,065	4
Drugs & pharmaceuticals	97,048	3
Hotels & tourism	94,224	3

Period: (April 2020- December 2020)
Source: Department for Promotion of Industry and Internal Trade

Bad Banks

Context: The National Asset Reconstruction Company (NARCL) or bad bank has received all approvals to commence operations.

What is a bad bank?

- A bad bank is a corporate entity that alienates illiquid and risky assets held by banks and financial institutions or a group of banks.
- It is created to help banks clean their balance sheets by transferring their bad loans so that the banks can focus on their core business of taking deposits and lending money.

What is an NPA?

- A non-performing asset (NPA) is a loan given by a bank that has stopped adding interest to the bank's kitty for a period more than 90 days.
- In other words, when a bank stops receiving payment of principal and interest towards a particular loan for more than three months, that loan is treated as an NPA.

How do NPAs impact the banking sector?

- The banks earn their income through interest they receive on the loans given to the borrowers.
- With that income, the bank pays interest to depositors. The balance between the interest income and income paid is the profit earned by the bank.
- This is the reason the interest charged by the bank is always more than the interest given to depositors.

National Asset Reconstruction Company Limited (NARCL)

- NARCL has been incorporated under the Companies Act and has applied to Reserve Bank of India for license as an Asset Reconstruction Company (ARC).
- NARCL has been set up by banks to aggregate and consolidate stressed assets for their subsequent resolution.
- PSBs will maintain 51% ownership in NARCL.
- IDRCL is a service company/operational entity which will manage the asset and engage market professionals and turnaround experts.
- Public Sector Banks (PSBs) and Public FIs will hold a maximum of 49% stake and the rest will be with private sector lenders.

International Relations

ASIAN INFRASTRUCTURE INVESTMENT BANK

Context Former RBI Governor Urjit Patel appointed as Vice President of Asian Infrastructure Investment Bank

About Asian Infrastructure Investment Bank:

- The Asian Infrastructure Investment Bank (AIIB) is an international financial institution proposed by China. The purpose of the multilateral development bank is to provide finance to infrastructure projects in the Asia-Pacific region.
- It is **headquartered in Beijing**.
- It commenced operations in January 2016.

- By investing in sustainable infrastructure and other productive sectors today, it aims to connect people, services and markets that over time will impact the lives of billions and build a better future.
- Regional members are those located within areas classified as Asia and Oceania by the **United Nations**.
- Unlike other MDBs (multilateral development bank), the **AIIB allows for non-sovereign entities** to apply for AIIB membership, **assuming their home country is a member**.
- Thus, sovereign wealth funds (such as the China Investment Corporation) or state-owned enterprises of member countries could potentially join the Bank.
- The China-led Asian Infrastructure Investment Bank (AIIB) has officially approved 57 nations as prospective founding members, with Sweden, Israel, South Africa, Azerbaijan, Iceland, Portugal and Poland the latest to be included.

Asian Development Bank (ADB)

- The Asian Development Bank (ADB) is a regional development bank established on 19 December 1966 to promote social and economic development in Asia.
- It is headquartered in the city of Mandaluyong, Metro Manila, Philippines.
- The ADB was modeled closely on the World Bank and an official United Nations Observer.
- Japan holds the largest proportion of shares in ADB followed by the USA, and it has a weighted voting system where votes are distributed in proportion with members' capital subscriptions (just like the World Bank).
- The bank admits the members of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, formerly the Economic Commission for Asia and the Far East or ECAFE) and non-regional developed countries.

NATO

Context: Moscow said that ties between Russia and NATO had reached a “moment of truth” ahead of high-stakes talks over Ukraine and security demands from the Kremlin.

About NATO

- The North Atlantic Treaty Organisation (NATO) is an international organisation for collective security by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union in 1949, in support of the North Atlantic Treaty signed in Washington.
- NATO's Headquarters are located in Evere, Brussels, Belgium.

- Since its founding, the admission of new member states has increased the alliance from the original 12 countries to 30 member states with North Macedonia being the most recent member state to be added to NATO in March 2020.
- An additional 20 countries participate in NATO's Partnership for Peace program, with 15 other countries involved in institutionalized dialogue programs.



India – South Korea Trade Talks

Context:

India and South Korea held discussions on bilateral trade and agreed to fast track negotiations to upgrade the Comprehensive Economic Partnership Agreement (CEPA).

Highlights of the discussion:

- The Indian side highlighted the difficulties the bovine meat exports are facing in South Korea.
- The two Ministers agreed with the spirit of openness to address difficulties expressed by industry from both sides and instructed their respective negotiating teams to meet on a regular basis to conclude the CEPA upgradation process negotiations as soon as possible in a time-bound manner
- New Delhi had put in a request to Seoul to provide market access for bovine meat in 2019 which was renewed in 2021. But it appears that South Korea has been insisting that India should get a clearance from the World Organisation for Animal Health.

- However, the Indian side has said the meat is being exported to several countries and there are no complaints regarding the foot-and-mouth disease from them.

About India's CEPA agreements

- India has signed CEPAs with South Korea and Japan and the one in negotiation with UAE is expected to increase bilateral trade in goods to USD 100 billion within five years of the signed agreement and increase trade in services to USD 15 billion, leading to wider social and economic opportunities in both nations.
- CEPAs are a kind of free trade pacts but these agreements or cooperation agreements are more comprehensive than Free Trade Agreements.

Sri Lanka to ink new agreements on oil tank farm with India

Context:

Sri Lanka (on 31st December 2021) announced its decision to sign three lease agreements on developing the strategic Trincomalee oil tank farm with India.

About Trincomalee Oil Tank Farms

- The Oil Tank Farms in Trincomalee Harbor located in 'China Bay' on the Eastern coast of Sri Lanka was built by the British during World War II as a refuelling station.
- The Trincomalee Oil Tank Farms have been bestowed with several favourable factors of location:
 - It is located on a deep-water natural harbour of Trincomalee and also
 - along some of the world's busiest shipping lanes –
- Hence, it is a highly attractive and rewarding to work with Sri Lanka on developing this oil tank farm.

About India and Sri Lanka agreements

- **The Indo-Lanka Accord 1987 proposed the joint development of the oil tank farm in the internationally coveted deep water natural harbour of Trincomalee.**
 - In 2003, Indian Oil Corporation set up its Sri Lankan subsidiary called Lanka IOC to work on this oil farm.
 - The Indo-Lanka Accord was signed in 1987 on the pretext of the Civil War in Sri Lanka (between Tamils and Sinhala community).

- The accord also resulted in enactment of the thirteenth Amendment to the Constitution of Sri Lanka and the Provincial Councils Act of 1987.

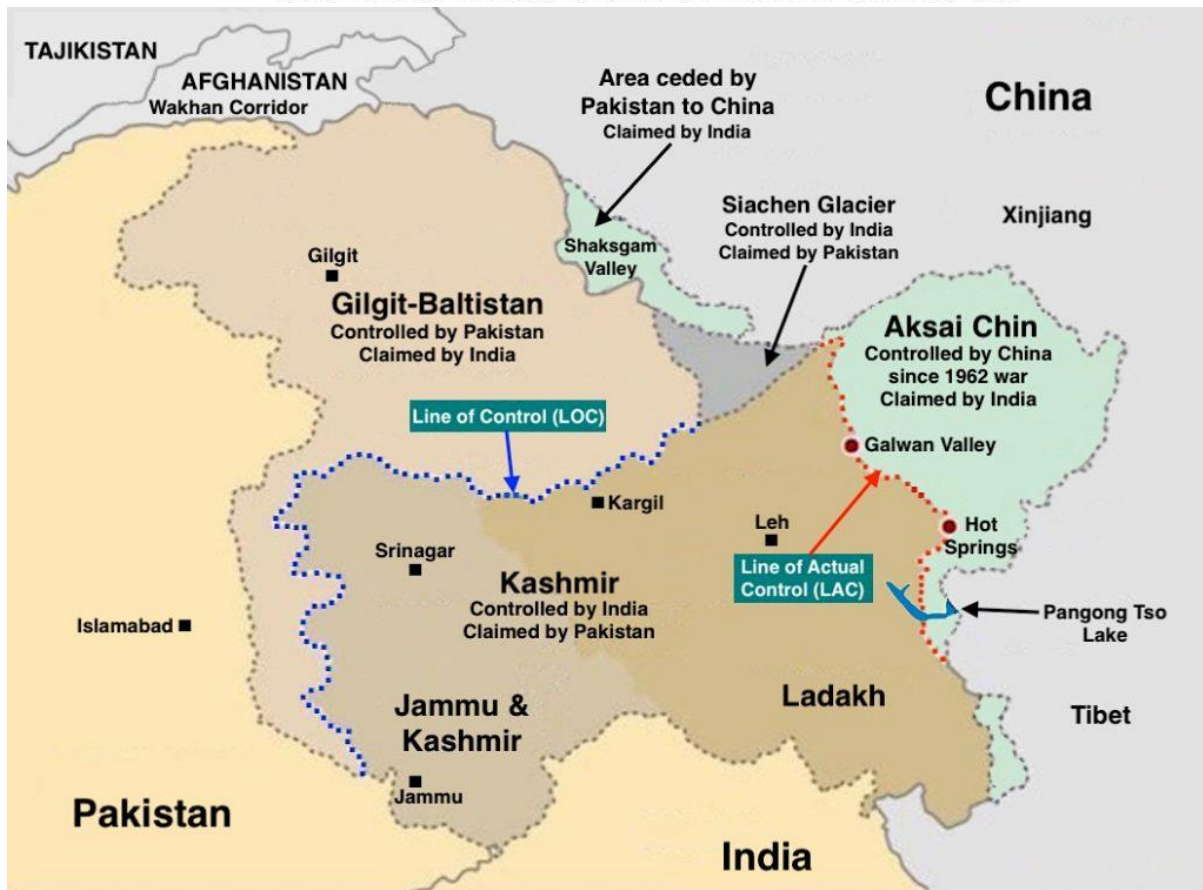
China constructing bridge on Pangong Tso

Context:

China is constructing a bridge in Eastern Ladakh connecting the North and South Banks of Pangong Tso.

About Pangong Tso lake

- Pangong Tso is a long narrow, deep, endorheic (landlocked – a drainage basin that normally retains water and allows no outflow to other external bodies of water, such as rivers or oceans, but drainage converges instead into lakes or swamps that equilibrate through evaporation) lake situated at a height of more than 14,000 ft in the Ladakh Himalayas.
- It is 134 km (83 mi) long and extends from India to the Tibetan Autonomous Region, China.
- Approximately **60% of the length of the lake lies within the Tibetan Autonomous Region.**
- It is **NOT a part of the Indus River basin area** and geographically a separate landlocked river basin.
- The lake is in the **process of being identified under the Ramsar Convention** as a wetland of international importance.
- The 135 km-long lake sprawls over 604 sq km in the shape of a boomerang, and is 6 km wide at its broadest point. The western end of Tso lies 54 km to the southeast of Leh.



Significance of the Pangong Tso

- By itself, the lake does not have major tactical significance. But it lies in the path of the Chushul approach, one of the main approaches that China can use for an offensive into Indian-held territory.
- Indian assessments show that a major Chinese offensive, if it comes, will flow across both the north and south of the lake.
- During the 1962 war, this was where China launched its main offensive.
- Over the years, the Chinese have built motorable roads along their banks of the Pangong Tso.
- Even during peacetime, the difference in perception over where the LAC lies on the northern bank of the lake, makes this contested terrain.
- In 1999, when the Army unit from the area was moved to Kargil for Operation Vijay, China took the opportunity to build 5 km of road inside Indian territory along the lake's bank.

The Houthi Attack on the United Arab Emirates

Context:

A suspected drone attack in Abu Dhabi, the capital of the United Arab Emirates (UAE), caused multiple explosions in which three people were killed —two Indians and one Pakistani.

Who are the Houthis?

- The roots of the Houthi movement can be traced to “Believing Youth” (Muntada al-Shahabal-Mu’min), a Zaydi revivalist group founded by Hussein al-Houthi and his father, Badr al-Din al-Houthi, in the early 1990s.
- Badr al-Din was an influential Zaydi cleric in northern Yemen. Inspired by the Iranian revolution of 1979 and the rise of Hezbollah in southern Lebanon in the 1980s, Badr al-Din and his sons started building vast social and religious networks among the Zaydis of Yemen, who make up roughly one-third of the Sunni-majority country’s population.
- For centuries, the Zaydis were a powerful sect within Yemen. After the collapse of the Ottoman Empire in 1918, the Zaydis would establish a monarchy (the Mutawakkilite Kingdom) in the country.
- But their dominance would come to an end in 1962 when the Egypt-backed republicans overthrew the monarchy.
- When Badr al-Din al-Houthi and his son Hussein launched the Believing Youth, the plan was to reorganise the Zaydi minority.

World powers vow to stop spread of nuclear weapons

Context:

Five global nuclear powers pledged to prevent atomic weapons spreading and to avoid nuclear conflict, in a rare joint statement ahead of a review of Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 2022.

Non-Proliferation Treaty (NPT)

- The Treaty on the Non-Proliferation of Nuclear Weapons, commonly known as the Non-Proliferation Treaty or NPT, is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving nuclear disarmament and general and complete disarmament
- The NPT is often seen to be based on a central bargain: “the NPT non-nuclear-weapon states agree never to acquire nuclear weapons and the NPT nuclear-weapon states in exchange agree to share the benefits of peaceful nuclear

technology and to pursue nuclear disarmament aimed at the ultimate elimination of their nuclear arsenals.”

- The treaty defines nuclear-weapon states as those that have built and tested a nuclear explosive device before 1 January 1967; these are the United States, Russia, the United Kingdom, France, and China.
- Four other states are known or believed to possess nuclear weapons: India, Pakistan, and North Korea have openly tested and declared that they possess nuclear weapons, while Israel is deliberately ambiguous regarding its nuclear weapons status.
- The Treaty has **189 States Parties**, which is the **largest number of any arms control agreement**.
- However, **India, Israel and Pakistan have not signed the NPT**.
- **North Korea announced its withdrawal in 2003**, and further announced that it had conducted an underground nuclear explosion in 2006 and 2009.

India, Israel in talks for free trade agreement

Context:

India is in dialogue with Israel for concluding a Free Trade Agreement (FTA) according to Commerce and Industry Minister.

Trade relations between India and Israel

- India was the third-largest Asian trade partner of Israel in 2014.
- Israeli companies have invested in India in energy, renewable energy, telecom, real estate, water technologies, and are focusing on setting up R&D centers or production units in India.
- Trade in diamonds constitutes close to 40% of bilateral trade.
- The first recipients of grants from the Israel-India Industrial R&D and Technological Innovation Fund (I4F) [to help Israeli entrepreneurs enter the Indian market] were announced in July 2018, including companies working to better the lives of Indians and Israelis through efficient water use, improving communications infrastructure, solar energy use, and life-changing surgeries.

Free Trade Agreement (FTA) between India and Israel

- Discussions regarding FTA have been going on between India and Israel for more than a decade.
- First round of negotiation was held in 2010 and several rounds of attempts to negotiate have taken place since then – however, talks have lapsed over a number of issues, including Israel’s reluctance to include an agreement on services in trade.

- During the last round of talks in 2021, both sides explored the possibility of a Preferential Trade Agreement for about 200 goods – which had also not been concluded.
- The latest effort for an FTA with Israel comes on the back of the government's recent drive to resume a number of trade negotiations – such as the push to resume talks with the U.K., Australia and the European Union.
- The FTA, if agreed upon, will open the Israeli market for Indian businesses in a more favourable way.

U.S., Russia Seek to Ease Ukraine Tensions

Context:

Washington and Moscow's top diplomats agreed to keep working to ease tensions over Ukraine, with the U.S. promising a written response to Russian security demands and not ruling out a presidential meeting.

About the Russia – Ukraine crisis

- Despite being an independent country since 1991, as the former Soviet republic Ukraine has been perceived by Russia as being part of its sphere of influence.
- Ukraine was one of the republics within the USSR during the cold war days, and has remained a strong ally of Russia ever since, till 2013.
- While it was planning to sign an association agreement with the European Union in 2013, Russia sternly objected to it, leading to tensions.
- Russia subsequently annexed "Crimea" (Russian speaking province in Ukraine) by force and declared its sovereignty over it with people's support.
- The Russo-Ukrainian War is an ongoing and protracted conflict between Russia and Ukraine that began in 2014, centred around the status of the Ukrainian regions of Crimea and Donbas.
- The resultant conflict has so far claimed about 10,000 lives and displaced millions with no lasting resolution in sight.
- Though the 2014-15 Minsk peace accords prohibited air strikes and heavy artillery firing, the dispute still prevails as a low-intensity combat.

What are the Minsk agreements on the Ukraine conflict?

MINSK I

- Ukraine and the Russian-backed separatists agreed a 12-point ceasefire deal in Minsk, the capital of Belarus in 2014.
- Its provisions included prisoner exchanges, deliveries of humanitarian aid and the withdrawal of heavy weapons.

- The agreement quickly broke down, with violations by both sides.

MINSK II

- Representatives of Russia, Ukraine, the Organisation for Security and Cooperation in Europe (OSCE) and the leaders of two pro-Russian separatist regions signed a 13-point agreement in 2015 in Minsk.
- The deal set out a series of military and political steps that remain unimplemented.
- An immediate and comprehensive ceasefire, Withdrawal of all heavy weapons by both sides, Monitoring and verification by the OSCE, Dialogue on interim self-government for the Donetsk and Luhansk regions, and An exchange of hostages and prisoners are the primary points.



Art and Culture

ADI SANKARACHARYA

Context: Adi Sankaracharya's birthplace likely to be declared as national monument.

About Adi Sankaracharya:

- He was born in Kaladi, Kerala in 788 CE who propounded the Doctrine of Advaita (Monism).
- He wrote many commentaries on the Vedic canon (Upanishads, Brahma Sutras and Bhagavad Gita) in Sanskrit.

- His major work is Brahmasutrabhasya (Bhashya or commentary on the Brahma Sutra).
- He travelled the length and breadth of India spreading Advaita Vedanta.
- He was responsible for reviving Hinduism in India to a great extent when Buddhism was gaining popularity.
- He was a devotee of Shiva.
- He criticised the Mimamsa School of philosophy and explained a major point of deviance between Hinduism and Buddhism. While Buddhism asserts that there is 'no Soul, no Self'; Hinduism, according to Adi Shankara, says that 'Atman (Soul, Self) exists'.
- Shankaracharya established four Mathas in the four corners of India and the tradition continues to this day.
- He preached renunciation and adoption of the knowledge path to realise Brahman.

What is Advaita Vedanta?

- Advaita Vedanta articulates a philosophical position of radical nondualism, a revisionary worldview which it derives from the ancient Upanishadic texts.
- According to Advaita Vedantins, the Upanishads reveal a fundamental principle of nonduality termed 'brahman', which is the reality of all things.
- The basic theme of Advaita is that the one unchanging entity (Brahman) alone is real while changing entities do not have absolute existence. The world is Maya or illusion and only the Self is real. A person who realises this attains moksha (liberation of the soul).
- The doctrine says that there is no difference between the Atman and the Brahman. The individual soul is not different from Brahman. Hence, its name Advaita meaning non-duality.

Tipu Sultan

Context: Recently, naming a playground on Tipu Sultan in Mumbai sparked a controversy.

- He was Haidar Ali's son and a great warrior, also known as the Tiger of Mysore.
- He was fluent in Arabic, Persian, Kanarese and Urdu.
- He was a great lover of democracy and a great diplomat.
- He supported the French soldiers at Seringapatam in setting up a Jacobin Club in 179.
- He organised his army on the European model with Persian words of command and was well aware of naval force.
- He planted the Tree of Liberty at Seringapatam.
- He was defeated in the Fourth Anglo-Mysore War and died on 4th May 1799, in Srirangapatna, located in the present-day Mandya district of Karnataka.

Contribution of Tipu Sultan

- Tipu introduced a number of administrative innovations during his rule
 - New land revenue system which initiated the growth of Mysore silk industry.
 - New coinage system a new Mauludi lunisolar calendar were introduced.
 - Military weapon named Mysorean Rockets was successfully used against the British East India Company during the 1780s and 1790s. This technology came into the hands of the British which later on resulted in the development of Congreve rockets.
 - Embraced western military methods like artillery and rockets alongside traditional Indian weapons including war elephants, he ensured his forces could overwhelm his Indian rivals

Schemes

Pradhan Mantri Jan Arogya Yojana

Context: Almost 90% of COVID-19 hospitalisations under the scheme took place in only 4 states.

About Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)

- Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) is a Centrally Sponsored Scheme having central sector component under Ayushman Bharat Mission anchored in the Ministry of Health and Family Welfare (MoHFW).
- It is an umbrella of two major health initiatives, namely Health and wellness Centres and National Health Protection Scheme.
- The PM Jan Arogya Yojana beneficiaries get an e-card that can be used to avail services at an empanelled hospital, public or private, anywhere in the country, with which they can walk into a hospital and obtain cashless treatment.
- The scheme has certain pre-conditions by which it picks who can avail of the health cover benefit. While in the rural areas the list is mostly categorized on lack of housing, meagre income and other deprivations, the urban list of PMJAY beneficiaries is drawn up on the basis of occupation.
- AB PM-JAY is the flagship scheme of the Union government as a part of the Indian government's National Health Policy.

National Health Protection Mission (AB-PMJAY)

- AB-PMJAY provides a defined insurance benefit cover of Rs. 5 lakh per family per year. This cover will take care of almost all secondary care and most of tertiary care procedures.
- To ensure that nobody is left out (especially women, children and elderly) there will be no cap on family size and age in the scheme.
- The beneficiaries can avail benefits in both public and empanelled private facilities. All public hospitals in the States implementing AB-PMJAY, will be deemed empanelled for the Scheme.
- Benefits of the scheme are portable across the country and a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.
- To control costs, the payments for treatment will be done on package rate (to be defined by the Government in advance) basis.