IQRA IAS An institute for civil services

WEEKLY UPDATES – (9th Oct-15th Oct)

Contents

ENVIRONMENT

Coexistence of Asiatic Wild Dog & Tiger

Context: Overlapping prey availability or habitat suitability could dictate a positive association between dholes and tigers, facilitating coexistence or even cooperative behaviours between the two species of carnivores, a new study has found.

- The paper, titled "Do dholes segregate themselves from their sympatrids? Habitat use and carnivore co-existence in the tropical forest", was published in the latest issue of Mammalian Biology, a peer-reviewed international scientific journal edited by the German Society for Mammalian Biology.
- Sympatric refers to animals, plant species, and populations within the same or overlapping geographical areas.
- The scientists studied the dholes in three phases from April 2017 to May 2019 in the 500-sq.km Manas National Park.
- "We aimed to assess the relative abundance index, habitat use and factors (space and time) influencing dhole co-existence with other sympatric carnivores in Manas National Park," the study said.

Key Highlights

- The **dhole or Asiatic wild dog** (Cuon alpinus) is the only endangered wild pack-living canid in the **tropical Indian forests** and is considered at **high risk of extinction**.
- The study through camera traps at **Manas National Park** in Assam also revealed that the **diurnal activity of the dholes had the highest temporal overlap with leopards and the lowest with clouded leopards.**
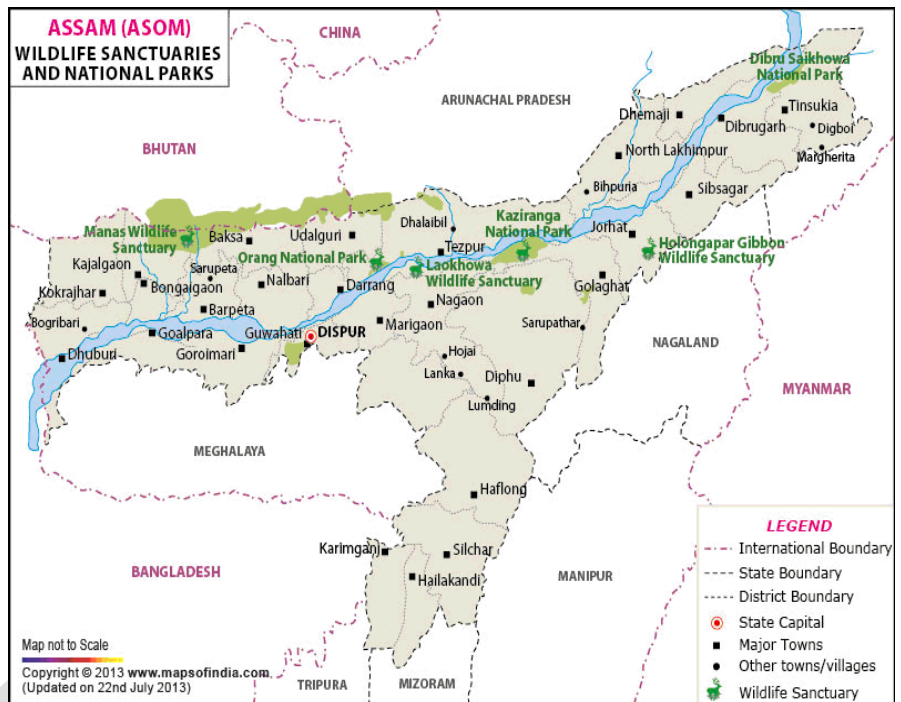
Fragmented Population

- Operating in packs of five to 10 — larger groups of more than 30 were observed in 2004 — dholes were once widespread across southern and eastern Asia.
- The global population of adult dholes, now classified as **endangered on the International Union for Conservation of Nature's Red List**, is estimated to be between 949 and 2,215.
- Factors such as **habitat loss, declining prey availability, persecution, disease, and interspecific competition** have contributed to the ongoing fragmentation of its populations.
- The hypotheses included **conflict with humans** on the periphery of protected areas as the **primary threat** to dholes, higher habitat utilisation where small-medium prey species such as rodents, hares, and rhesus macaques are found, and a **negative relationship between dhole habitat use and other large carnivores**.
- However, our study findings revealed a **surprising positive relationship between dhole habitat use and tiger**, rejecting the habitat exclusivity hypothesis.
  - This unexpected result challenges the assumption of antagonistic interactions between these two species and suggests a more complex ecological dynamic.
  - The positive association could be attributed to factors such as **overlapping prey availability or habitat suitability, which may facilitate co-existence or even cooperative behaviours** between dholes and tigers.

Manas National Park

It is located in the foothills of Himalayas in Assam. It is contiguous with the Royal Manas National Park in Bhutan.

- It is a national park, UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve.
- Flora: It contains some of the largest remaining grassland habitats in the sub-Himalayan grassland ecosystems.
- Fauna: The Park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog.
- The name of the park originates from the Manas River, which is named after the serpent goddess Manasa.
- The Manas River is a major tributary of Brahmaputra River, which passes through the Manas National Park.
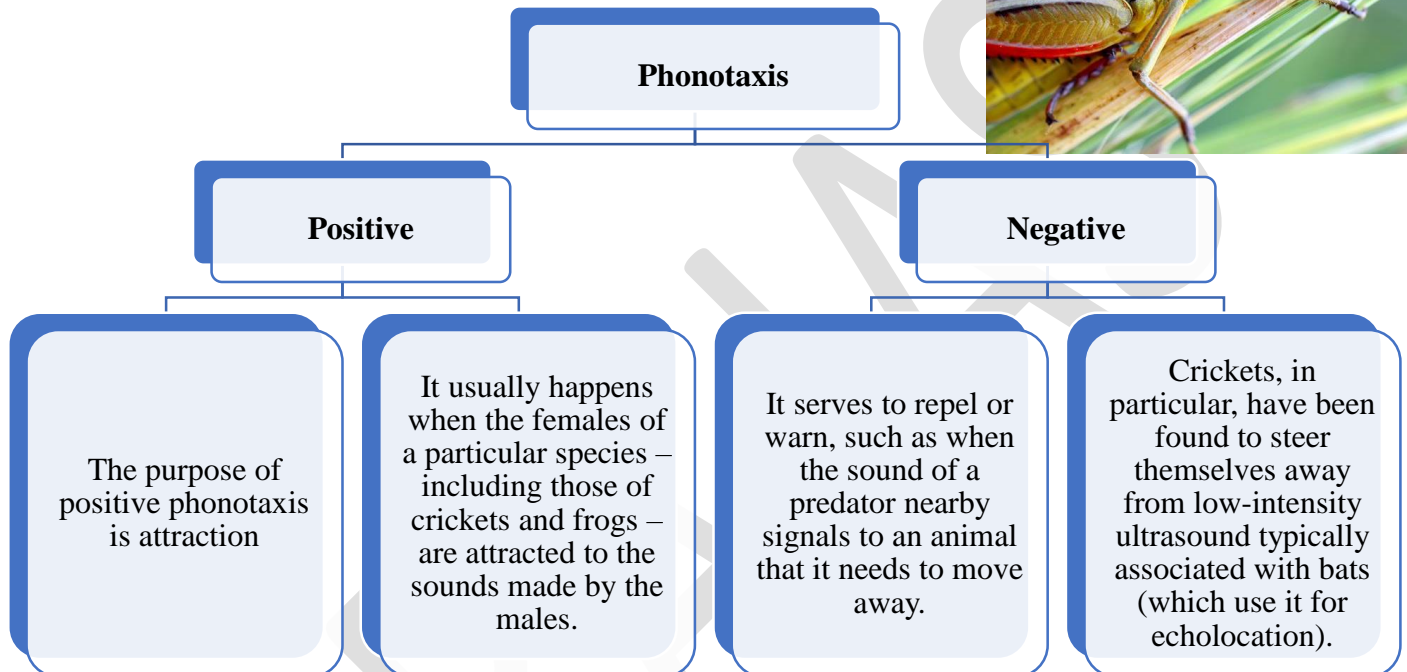
Asiatic Wild Dog

Dhole	
About	• Dhole (Cuon alpinus) is a wild carnivorous animal and is a member of the family Canidae and the class Mammalia.
Habitat	• Dholes, historically widespread across **southern Russia to southeast Asia**, are now mainly found in **south and southeast Asia**, with northern populations in China. • In India, they are clustered in the **Western and Eastern Ghats, central India, and northeast India**, with Karnataka, Maharashtra, and Madhya Pradesh playing a crucial role in their conservation, according to a 2020 study.
Conservation	• Wildlife Protection Act, 1972: **Schedule 2**. • International Union for Conservation of Nature's Red List: **Endangered**. • The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): **Appendix II**. • The creation of reserves under Project Tiger provided some protection for dhole populations sympatric with tigers. • In 2014, the Indian government sanctioned its first dhole conservation breeding center at the Indira Gandhi Zoological Park (IGZP) in Visakhapatnam.

Crickets Use Phonotaxis To Attract Mates

Context: The click of crickets in the evening or frogs croaking during the monsoon are called phonotaxis (the movement by an animal in response to a sound). It has mostly been observed among crickets, moths, frogs, toads, and a few other creatures.

Key Highlights


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                    Phonotaxis
              ┌───────────┴────────────┐
          Positive                  Negative
        ┌─────┴─────┐            ┌──────┴──────┐
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Positive		Negative	
The purpose of positive phonotaxis is attraction	It usually happens when the females of a particular species – including those of crickets and frogs – are attracted to the sounds made by the males.	It serves to repel or warn, such as when the sound of a predator nearby signals to an animal that it needs to move away.	Crickets, in particular, have been found to steer themselves away from low-intensity ultrasound typically associated with bats (which use it for echolocation).

- In 1984, scientists found that Mediterranean house geckos (Hemidactylus turcicus) use positive phonotaxis to their advantage.
- The fields that these geckos inhabited were also home to male decorated crickets (Gryllodes supplicans), which used species-specific sounds to attract the females from their burrows.
- The geckos recognised and followed this call until they reached the burrow, where they consumed the female crickets.

About Crickets
- Cricket, any of approximately **2,400 species of leaping insects** that are worldwide in distribution and known for the **musical chirping of the male**.
- They have mainly **cylindrical bodies, round heads, and long antennae**. Behind the head is a **smooth, robust pronotum**.
- Crickets are noticeable for their **loud calls**, especially at night. Male crickets produce this **sound by rubbing their wings against each other** to attract females.
- The females listen to these calls using **ears located on their legs** and approach the males for mating and reproduction.

2023: On Course To Be Warmest Year On Record

Context: 2023 recorded the **hottest-ever September**, following the warmest-ever two months on record — July and August 2023.

- As the world gears up for COP28, there is alarming data on the horizon.
- The year 2023 is on course to possibly becoming the warmest year in recorded history, with **temperatures nearing 1.4°C above the pre-industrial era average**.

Key Highlights

In September 2023, global temperatures reached a record high.

- The average surface air temperature was 16.38°C, which is 0.93°C higher than the September average between 1991 and 2020.
- Moreover, it was 0.5°C warmer than the earlier record set in September 2020.

Chart 1 shows the globally averaged surface air temperature anomalies relative to 1991–2020 for each September from 1940 to 2023.

Chart 1 | Globally averaged surface air temperature anomalies relative to 1991–2020 for each September from 1940 to 2023

- The month of September 2023 was approximately 1.75°C above the average temperature of September during the 1850-1900 span, which is considered the pre-industrial benchmark.
- From January to September 2023, the global surface air temperature was 0.52°C above the 1991-2020 average and 0.05°C higher than the same period in 2016, the warmest year.
- During this time frame in 2023, the world's average temperature was 1.40°C higher than the baseline period of 1850-1900.
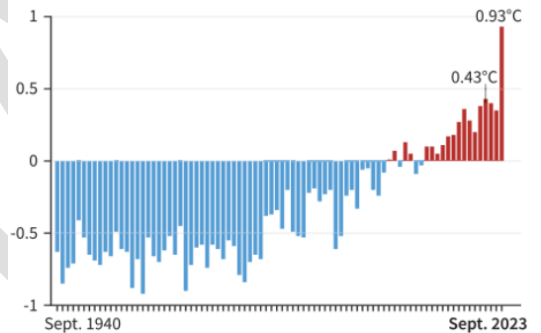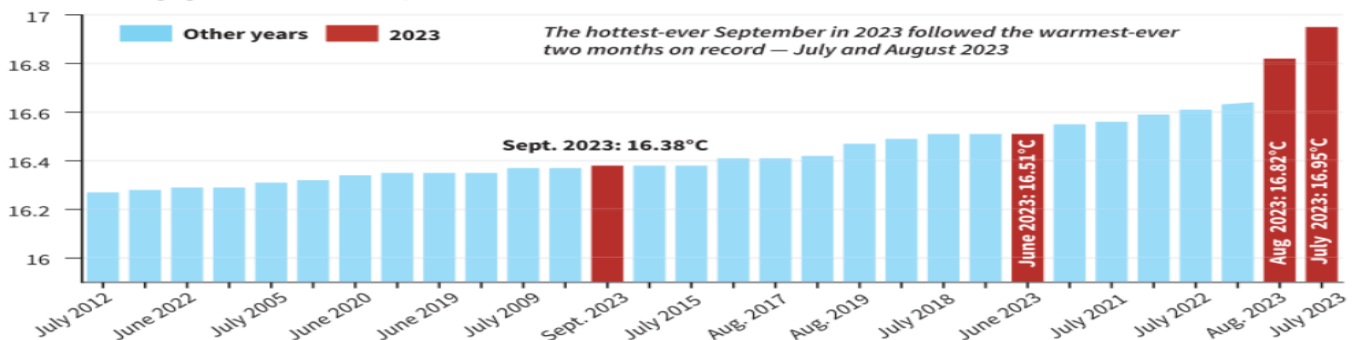
According to the Copernicus Climate Bulletin, in September 2023, the majority of **Europe experienced temperatures significantly higher than the average from 1991 to 2020**.

- A region stretching from France to Finland and extending to north-western Russia reported its hottest September ever.
- Notably, both Belgium and the U.K. faced unparalleled heatwave conditions at the start of the month.

Chart 2 shows the average global surface air temperatures for the 30 warmest months between 1940 and 2023, arranged in ascending order.

Chart 2 | Average global surface air temperatures (°C) for the 30 warmest months between 1940 and 2023

The hottest-ever September in 2023 followed the warmest-ever two months on record — July and August 2023

Sept. 2023: 16.38°C

June 2023: 16.51°C

Aug 2023: 16.82°C

July 2023: 16.95°C

- The global mean temperature reached monthly records of 16.95°C and 16.82, in July and Aug 2023 respectively.
- The notable increase in these two months, especially compared to the July 2019 record of 16.63°C, is evident in Chart 2.
- Moreover, September 2023 is the sole September represented in this chart. The warmest September before 2023 recorded an average surface air temperature 15.88°C, which is not high enough to be included in chart 2.

Chart 3 shows the global daily surface air temperature (°C) from January 1, 1940 to September 30, 2023, plotted as a time series for each year.

Chart 3 | Global daily surface air temperature (°C) from January 1, 1940, to September 30, 2023 for each year

- The line for 2023 is highlighted. Other years are marked in grey. The thick black line represents the 1.5°C threshold above pre-industrial levels.
- For more than 80 days in 2023, the global temperature was at least 1.5° higher than pre-industrial levels. The year 2023 holds the record for the highest number of such days.
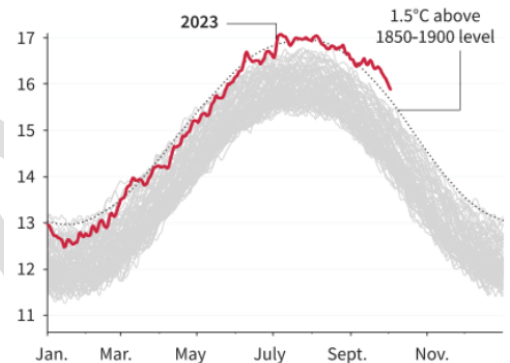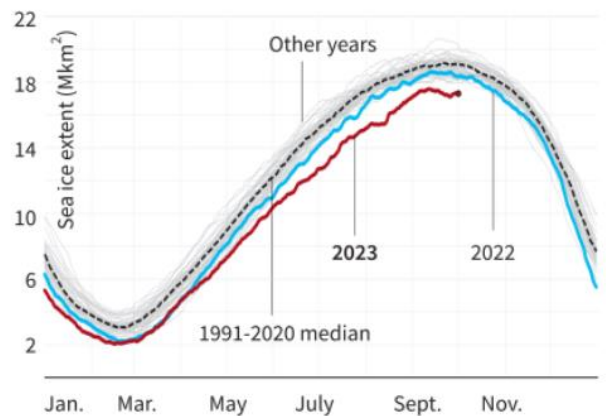
In a worrying update, the extent of **sea ice has stayed at very low levels** for this time of the year in the **Antarctic region**. Sea ice extent refers to the total area of an ocean where there is at least some sea ice present.

- Satellite records for September reveal that both daily and monthly extents have plummeted to their lowest annual peaks, with the monthly extent dropping 9% below the norm.

Chart 4 | Daily Antarctic sea ice extent from 1979 to September 2023. The median for 1991–2020 is shown as a dotted line

Chart 4 shows the daily Antarctic sea ice extent from 1979 to September 2023. The year 2023 is highlighted; the median for 1991–2020 is shown as a dotted line.

Meanwhile, the monthly average Arctic sea ice extent in September 2023 reached its annual minimum of 4.8 million km2, about 1.1 million km2 (or 18%) below the 1991-2020 average for September. This value is the fifth lowest in the satellite data record.

ECONOMY

Centre Unveils Tradeable Green Credit

Context: Special scheme to allow individual or entity to earn Green Credit, trade it on a dedicated exchange.

- Green Credit refers to a unit of an incentive provided for specified activities that deliver a positive impact on the environment; to obtain credits, one needs to register the activity via a website.

- "A Green Credit programme is being launched at the national level to leverage a competitive market-based approach for incentivising environmental actions of various stakeholders," the Environment, Forest, and Climate Change Ministry said in a notification.
- This programme is a follow-up action of the 'LiFE'-(Lifestyle for Environment) campaign. The notification added that the new programme is a voluntary one.

Trading green

The programme will cover 8 types of activities, including tree plantation, water management and sustainable agriculture

- Applicant shall register activity via web site
- Activity will then be verified by a designated agency
- Based on its report, administrator shall grant credit certificate

Key Highlights

This programme will cover eight types of activities

Tree Plantation	Water Management	Sustainable Agriculture	Waste Management

Air Pollution Reduction	Mangrove Conservation	Restoration

- To get the Green Credit, one needs to register the activity with the administrator through a website.
- The activity will then be verified by a designated agency and based on its report, the administrator shall grant the applicant a certificate of Green Credit.
- The **calculation of Green Credit** shall be based on equivalence of resource requirement, parity of scale, scope, size, and other relevant parameters to achieve the desired environmental outcome.
- A Green Credit Registry will also be included.
- The administrator will establish and maintain a trading platform.
- The programme would incentivise environmentally-positive actions via a market-based mechanism and generate Green Credit, which shall be made available for trading on a domestic market platform.
- The **initiative aims** to encourage industries, companies, and other entities meet their obligations under any law that is in force for the time being. However, the Green Credit generated or procured to fulfil any obligation, in compliance with any law, shall not be tradeable.
- The notification clarified that the Green Credit programme is **independent of the carbon credit provided under the Carbon Credit Trading Scheme**, 2023 under the Energy Conservation Act, 2001.
- An environmental activity generating Green Credit may have climate co-benefits, such as reduction or removal of carbon emissions... and may get carbon credit.

POLITY

The State of India's Scheduled Areas

Context: India's 705 Scheduled Tribe (ST) communities — making up 8.6% of the country's population — live in 26 States and six Union Territories.

- Article 244, pertaining to the administration of Scheduled and Tribal Areas, is the single most important constitutional provision for STs.
- Article 244(1) provides for the application of Fifth Schedule provisions to Scheduled Areas notified in any State other than Assam, Meghalaya, Tripura, and Mizoram.
- The Sixth Schedule applies to these States as per Article 244(2).

Key Highlights

- Scheduled Areas cover 11.3% of India's land area, and have been notified in 10 States: Andhra Pradesh, Telangana, Odisha, Jharkhand, Chhattisgarh, Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, and Himachal Pradesh.
- In 2015, Kerala proposed to notify 2,133 habitations, five gram panchayats, and two wards in five districts as Scheduled Areas; it awaits the Indian government's approval.
- However, despite persistent demands by Adivasi organisations, villages have been left out in the 10 States with Scheduled Areas and in other States with ST populations.
- As a result, 59% of India's STs remain outside the purview of Article 244. They are denied rights under the laws applicable to Scheduled Areas, including the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 and the Biological Diversity Act 2002.

In 1995, the **Bhuria Committee**, constituted to recommend provisions for the extension of panchayat raj to Scheduled Areas, recommended including these villages, but this is yet to be done.

- The absence of viable ST-majority administrative units has been the standard bureaucratic response — an argument that has also been used to demand the denotification of parts of Scheduled Areas where STs are now a minority due to the influx of non-tribal individuals.

Who Decides a Scheduled Area?

The Fifth Schedule confers powers exclusively on the President to declare any area to be a Scheduled Area. In 2006, the Supreme Court held that "the identification of Scheduled Areas is an executive function" and that it doesn't "possess the expertise … to scrutinise the empirical basis of the same".

THE GIST

- India's 705 Scheduled Tribe (ST) communities — making up 8.6% of the country's population — live in 26 States and six Union Territories.

- However, despite persistent demands by Adivasi organisations, villages have been left out in the 10 States with Scheduled Areas and in other States with ST populations.

- Based on the 1961 Dhebar Commission Report, the guiding norms for declaring an area as a Scheduled area are — preponderance of tribal population; compactness and reasonable size of the area; a viable administrative entity such as a district, block or taluk; and economic backwardness of the area relative to neighbouring areas.

- In 2016, the Jharkhand High Court dismissed a challenge to the notification of a Scheduled Area because the ST population there was less than 50% in some blocks. The court observed that the declaration of a Scheduled Area is "within the exclusive discretion of the President".

How are Scheduled Areas Identified?

Neither the Constitution nor any law provides any criteria to identify Scheduled Areas. However, based on the 1961 **Dhebar Commission Report**, the guiding norms for declaring an area as a Scheduled area are —

Preponderance of tribal population	**Compactness and reasonable size of the area**	**A viable administrative entity such as A district, block or taluk**	**Economic backwardness of the area relative to neighbouring areas**
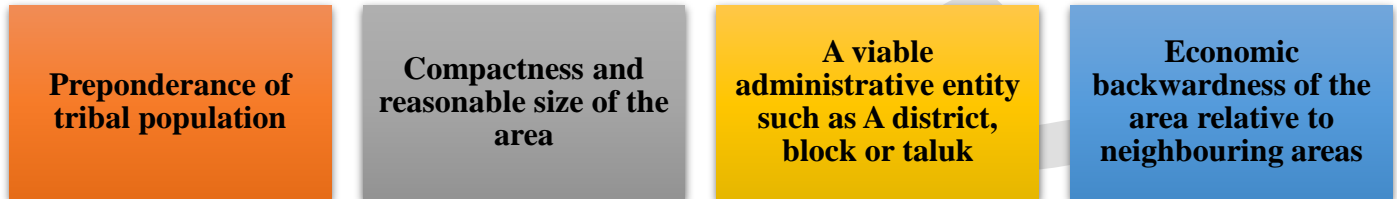
- No law prescribes the minimum percentage of STs in such an area nor a cut-off date for its identification.
- This said, the 2002 Scheduled Areas and Scheduled Tribes Commission had recommended that "all revenue villages with 40% and more tribal population according to the 1951 Census may be considered as Scheduled Area (sic) on merit".
- The Ministry of Tribal Affairs communicated this to the States in 2018 for their consideration, but elicited no response.
- Compactness of an area means that all the proposed villages need to be contiguous with each other or with an existing Scheduled Area. If not, they will be left out.
- But contiguity is not a mandatory demarcating criterion. One example is Kerala's pending proposal, which ignores the conditions.

The **Bhuria Committee** recognised a face-to-face community, a hamlet or a group of hamlets managing its own affairs to be the basic unit of self-governance in Scheduled Areas.

- But it also noted that the most resource rich tribal-inhabited areas have been divided up by administrative boundaries, pushing them to the margins.
- Therefore, determining the unit of the area to be considered — whether a revenue village, panchayat, taluka or district, with an ST-majority population — gave way to arbitrary politico-administrative decisions.

However, PESA's enactment finally settled this ambiguity in law.

- The Act defined a 'village' as ordinarily consisting of "a habitation or a group of habitations, or a hamlet or a group of hamlets comprising a community and managing its affairs in accordance with traditions and customs".
- All those "whose names are included in the electoral rolls" in such a village constituted the gram sabha.
- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, also known as the FRA Act, adopted this definition.
- Here, too, the gram sabhas are the statutory authority to govern the forests under their jurisdiction.

- As a result, the definition of a village expanded beyond the Scheduled Areas to include forest fringes and forest villages as well.
- However, gram sabhas are yet to demarcate their traditional or customary boundaries on revenue lands in the absence of a suitable law.
- FRA 2006 requires them to demarcate 'community forest resource', which is the "customary common forest land within the traditional or customary boundaries of the village or seasonal use of landscape in the case of pastoral communities, including reserved forests, protected forests and protected areas such as Sanctuaries and National Parks to which the community had traditional access".
- The traditional or customary boundary within revenue and forest lands (where applicable) would constitute the territorial jurisdiction of the village in the Scheduled Area.

How Are Scheduled Areas Governed?
The President of India notifies India's Scheduled Areas.
- States with Scheduled Areas need to constitute a Tribal Advisory Council with up to 20 ST members.
- They will advise the Governor on matters referred to them regarding ST welfare.
- The Governor will then submit a report every year to the President regarding the administration of Scheduled Areas.
- The national government can give directions to the State regarding the administration of Scheduled Areas.
- The Governor can repeal or amend any law enacted by Parliament and the State Legislative Assembly in its application to the Scheduled Area of that State.
    o The Governor can also make regulations for a Scheduled Area, especially to prohibit or restrict the transfer of tribal land by or among members of the STs, and regulate the allotment of land to STs and money-lending to STs.
    o These powerful provisions, authority, and special responsibility vested with Governors, with the President's oversight, have largely remained a dead letter, except briefly in Maharashtra from 2014 to 2020.
- It was only when Parliament enacted the provisions in various laws applicable to Scheduled Areas, including the Panchayats (Extension to Scheduled Areas) Act, or PESA, in 1996 that the intent of the Constitution and the Constituent Assembly actually came alive.
- State panchayat laws had empowered the elected panchayat bodies, rendering the gram sabhas moot. But PESA empowered the gram sabhas to exercise substantial authority through direct democracy, and stated that structures "at the higher level do not assume the powers and authority" of the gram sabha.

Way Forward
- All habitations or groups of habitations outside Scheduled Areas in all States and Union Territories where STs are the largest social group will need to be notified as Scheduled Areas irrespective of their contiguity.
- Secondly, the geographical limit of these villages will need to be extended to the 'community forest resource' area on forest land under the FRA 2006 where applicable, and to the customary boundary within revenue lands made possible through suitable amendments to the relevant State laws.

- Finally, the geographical limits of the revenue village, panchayat, taluka, and district will need to be redrawn so that these are fully Scheduled Areas.

INTERNATIONAL RELATIONS

Operation Ajay

Context: India brought back the first batch of citizens from crisis-hit Israel under Operation Ajay.

Operation Ajay

- It is consistent with our PM's motto of not leaving any Indian behind.
- India has initiated "Operation Ajay" to evacuate its citizens from conflict-stricken Israel.
- This marks the second evacuation operation of the year, following Operation Kaveri, which brought back Indian citizens from Sudan earlier.
- The decision to initiate Operation Ajay comes in response to recent conflicts in the region, including a Hamas attack on Israel and the subsequent military strike on the Gaza Strip.

According to the Ministry of External Affairs spokesperson, Israel has nearly 18,000 Indians and the airlift operation is aiming to cater to those who are willing to be evacuated. People are being accommodated in aircraft on a "first-come, first-serve" basis. Officials have indicated that the number of evacuees may increase if the crisis prolongs.

Various Other Past Operations		
Operation Name	**Year**	**Reason for Evacuation**
Operation Dost	2023	Turkey-Syria earthquake
Operation Ganga	2022	Tensions between Russia and Ukraine
Vande Bharat	2020	Covid-19 pandemic
Operation Samudra Setu	2020	Covid-19 pandemic
Evacuation from Brussels	2016	Terrorist strikes
Operation Raahat	2015	Conflict in Yemen
Operation Maitri	2015	Nepal earthquake
Operation Safe Homecoming	2011	Conflict in Libya
Operation Sukoon	2006	Conflict in Lebanon
1990 Kuwait Airlift	1990	Invasion of Kuwait by Iraq

Ferry to Sri Lanka

Context: PM Modi launches the passenger ferry service between **Nagapattinam** and **Kankesanthurai,** speaks of **enhanced economic and diplomatic ties**.

- Enhanced connectivity was bringing people of India and Sri Lanka closer, Prime Minister Narendra Modi said on Saturday at the launch of an international, high-speed passenger ferry **Cheriyapani** service between

INDIA - SRI LANKA FERRY SERVICE

Nagapattinam on the eastern coast of Tamil Nadu and Kankesanthurai in the northern province of Sri Lanka.

Key Highlights

- Connectivity is not only about bringing two cities closer. It also brings our countries closer, our people closer and our hearts closer," Mr. Modi said, emphasising the role of trade, tourism and people-to-people ties in promoting new opportunities for growth for the young people of both countries.
- In his remarks, he highlighted the rich history of maritime trade linked to Nagapattinam and nearby towns.
- The ferry service will help strengthen cultural, commercial, and civilisational ties between the two nations.
- Connectivity was the central theme of the joint vision of the India-Sri Lanka economic partnership, Mr. Modi said, adding that India would take steps to resume the operation of the ferry service between Rameswaram and Talaimannar as well.
- This was an important step in improving connectivity between the two nations. People of both countries have travelled across the Palk Strait for many years before they were suspended due to the civil war, he said.
- The launch affirmed the "neighbourhood first" policy of India which would help improve disaster management, maritime security, and ease of business.

Ferry service to Sri Lanka is a blow to Lakshadweep

The launch of a new ferry service between Tamil Nadu and Sri Lanka has the islanders of Lakshadweep feeling short-changed as it has further worsened their transportation woes.

- The islanders had been clamouring for more passenger vessels for inter-island transport when Cheriyapani, a high-speed ferry with the capacity to carry 150 passengers, was taken out of service within the island group and launched for the ferry service connecting Sri Lanka.
- Cheriyapani, was one of the three high-speed vessels conducting inter-island ferry services besides occasionally conducting services to Kochi in the mainland.
- Together the three vessels had a capacity to carry 450 passengers. It's just Valiyapani and Parali now, with a combined capacity of 300 passengers. This is sure to further aggravate the transportation crisis faced by the islanders.
- The high-speed ferries are the ones that would ply to the farthest island in the group, Minicoy. These apart, there are just three intra-island ferries — each capable of carrying 50 passengers — operating in the island group.
- But they are not cleared to operate to the mainland or to Minicoy.
- The islanders have been up in arms about the erratic service of the five ships linking the island group with Kochi.
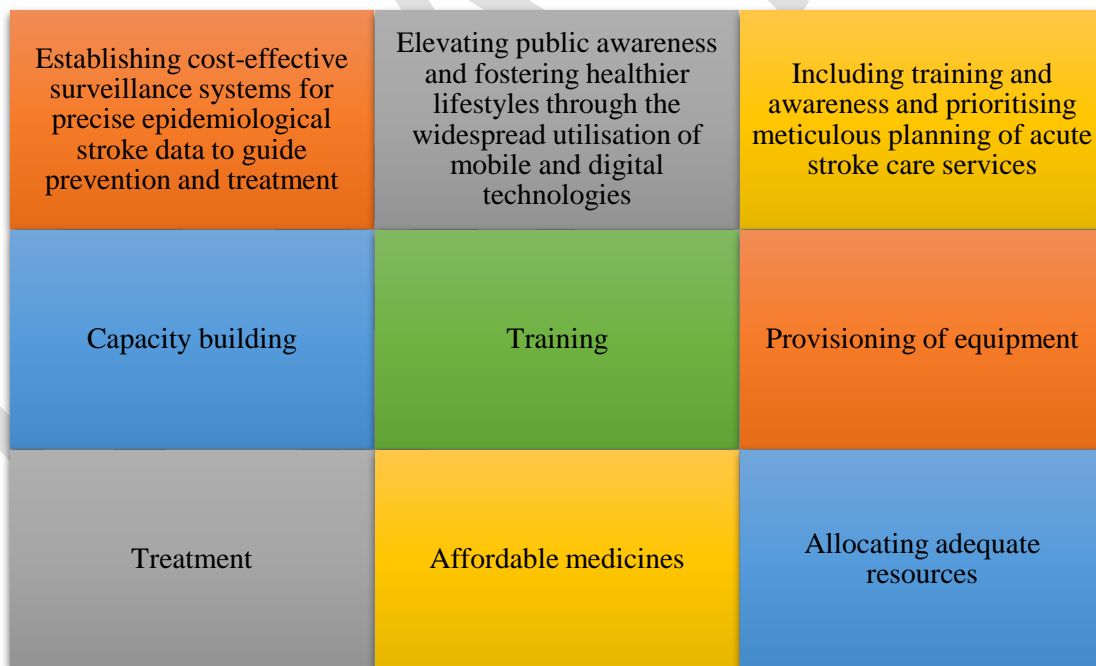
HEALTH

Stroke Deaths

Context: Stroke, a highly preventable and treatable condition, could lead to nearly 10 million deaths annually by 2050, primarily affecting low- and middle-income countries (LMICs), warns a report published in the Lancet Neurology journal on Monday.

Key Highlights

- The projection comes from the collaborative effort of the **World Stroke Organization** and the **Lancet Neurology Commission** under which four studies have been published.
- The report underscores that stroke deaths are expected to surge from **6.6 million in 2020** to a daunting **9.7 million by 2050**.
- By 2050, it is estimated that the contribution of stroke deaths in LMICs will see an **increase from 86% to 91%.**
- The report has emphasised the critical role of evidence-based, pragmatic solutions in combating this looming crisis and notes that implementing and rigorously monitoring the commission's recommendations, which are firmly grounded in evidence, could lead to a significant reduction in the global stroke burden, effectively countering this ominous projection.
- The commission authors have presented their findings into 12 evidence-based recommendations.
- The recommendations include

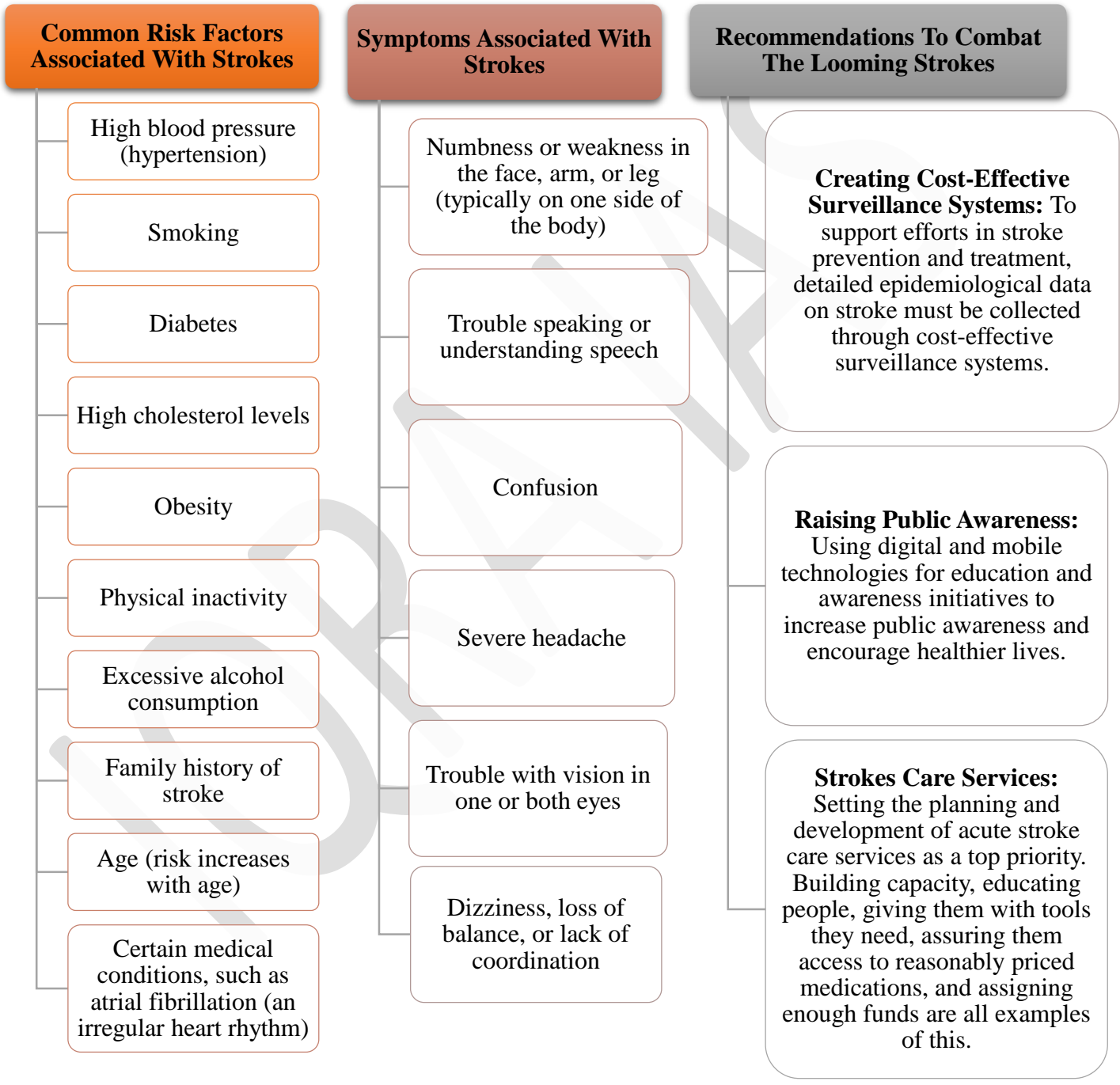|		
Establishing cost-effective surveillance systems for precise epidemiological stroke data to guide prevention and treatment	Elevating public awareness and fostering healthier lifestyles through the widespread utilisation of mobile and digital technologies	Including training and awareness and prioritising meticulous planning of acute stroke care services
Capacity building	Training	Provisioning of equipment
Treatment	Affordable medicines	Allocating adequate resources

What is a Stroke Condition?

When there is a blockage in the blood supply to the brain or an unexpected increase in brain haemorrhage, a stroke may happen. There are two distinct stroke kinds:

Ischemic Stroke	Hemorrhagic Strokes

- An ischemic stroke is one when there is a blockage of blood flow to the brain. Blood cannot supply the brain with nutrition and oxygen. Brain cells start to die within minutes of being deprived of oxygen and nutrition.
- Hemorrhagic strokes are caused by abrupt bleeding in the brain and are the most common type of stroke. Blood leakage causes pressure on brain cells, which harms them.

Common Risk Factors Associated With Strokes

- High blood pressure (hypertension)
- Smoking
- Diabetes
- High cholesterol levels
- Obesity
- Physical inactivity
- Excessive alcohol consumption
- Family history of stroke
- Age (risk increases with age)
- Certain medical conditions, such as atrial fibrillation (an irregular heart rhythm)

Symptoms Associated With Strokes

- Numbness or weakness in the face, arm, or leg (typically on one side of the body)
- Trouble speaking or understanding speech
- Confusion
- Severe headache
- Trouble with vision in one or both eyes
- Dizziness, loss of balance, or lack of coordination

Recommendations To Combat The Looming Strokes

Creating Cost-Effective Surveillance Systems: To support efforts in stroke prevention and treatment, detailed epidemiological data on stroke must be collected through cost-effective surveillance systems.

Raising Public Awareness: Using digital and mobile technologies for education and awareness initiatives to increase public awareness and encourage healthier lives.

Strokes Care Services: Setting the planning and development of acute stroke care services as a top priority. Building capacity, educating people, giving them with tools they need, assuring them access to reasonably priced medications, and assigning enough funds are all examples of this.

DEFENCE

Indian Air Force Unveils New Ensign on its 91st Anniversary

Context: The Chief of the Air Staff unveiled a new Ensign for the force, as it marked its 91st anniversary, by the inclusion of the Air Force Crest in the top right corner of the Ensign, towards the fly side.

- This year, the Air Force Day parade was held at the Air Force Station, Bamrauli in Prayagraj.
- The air display held in the afternoon on the banks of the Triveni Sangam, saw a few lakh people turn up to watch the aerial manoeuvres.

About New Ensign

- Explaining the new Ensign, a statement said the IAF Crest has the **national symbol, the Ashoka lion**, on the top with the words **Satyameva Jayate in Devanagari below it**.
- Below the Ashoka lion is a Himalayan eagle with its wings spread, denoting the fighting qualities of the IAF, it stated, adding, "A ring in light blue colour encircles the Himalayan eagle with the words 'Bharatiya Vayu Sena' and the motto of the IAF is inscribed below Himalayan eagle in golden Devanagari."

Key Highlights

- In the event the **Sarang helicopter** display team has gone from a four-helicopter to a five-helicopter military display team.
- In another first, the newly inducted **C-295 transport aircraft** made its maiden appearance, while the legacy **MiG-21 Bison** made what is likely its last appearance in an air display, prior to the planned phasing out by 2025.
- The **theme** for this year's **Air Force Day** was **"IAF — air power beyond boundaries"**, which the Air chief said aptly reflected the "**inherent global reach of air power and how air power will prove decisive in future conflicts**".
- This is the **first Air Force Day Parade to be commanded by a woman officer**, Group Captain Shaliza Dhami.
  o She is also the first woman officer of the IAF to command a combat unit.
  o The parade had an all-woman contingent of newly inducted Agniveer Vayu personnel.
- The parade also included a flight of **Garud Commandos** of the IAF for the first time, as the they completed 20 years of service.
- The Air chief presented Unit Citations to four IAF Units — 16 Squadron, 142 Helicopter Unit, 901 Signal Unit and 3 Base Repair Depot for their contribution to the service.

India, Italy Sign Defence Agreement

Context: India and Italy signed a defence cooperation agreement to promote cooperation in varied defence domains such as "security and defence policy, R&D, education in military field, maritime domain awareness, sharing of defence information and industrial cooperation, including co-development, co-production and setting up of joint ventures".

- During the discussions, **particular emphasis** was placed on **fostering defense industrial cooperation**. This includes encouraging interactions between Indian start-ups and Italian defense companies to leverage the strengths of both nations.

The agreement outlines the following key areas of bilateral cooperation:

Security and Defense Policy

India and Italy will collaborate on defining and shaping security and defense policies.

Research and Development

Joint efforts will be made in research and development projects related to defense technology and innovation.

Education in the Military Field

Both nations will promote educational exchanges and partnerships in military training and knowledge sharing.

Maritime Domain Awareness

Enhancing awareness and security in maritime domains will be a focus of the cooperation.

Sharing of Defense Information

India and Italy will exchange crucial defense information to strengthen their defense capabilities.

Industrial Cooperation

The two nations will work together on co-development, co-production, and establishing joint ventures in the defense sector.

India-Italy Bilateral Relations

India and Italy are ancient civilizations but young states. Based on common interests like rule based international order, India and Italy have enjoyed a cordial relationship.

Diplomatic	Trade and Investment	Cultural Exchange	Scientific Cooperation	Defence

Diplomatic	- Political relations between India and Italy were established in 1947. - The two countries enjoy cordial relationships. There has been a regular exchange of visits at political and official levels between both countries. - Italy has supported India's membership to export control regimes like the Missile Technology Control Regime (MTCR), Wassenaar Arrangement, and the Australia Group.
Trade and Investment	Italy is among India's top 5 trading partners in the EU. The balance of trade has been in India's favour since the early eighties.

	• In 2021, the two countries inked a Strategic Partnership on Energy Transition to advanced collaboration on areas like green hydrogen and biofuels. • India invited Italy to partner in 'Make in India' and 'Aatmanirbhar Bharat Abhiyan' with a focus on the areas of renewable energy, green hydrogen, IT, telecom, and space among others. • Italy also joined the successful India-France led International Solar Alliance comprising over 90 members.
Cultural Exchange	• The agreement for cultural cooperation was signed in 1976. • It was replaced by a new Agreement in July 2004. • The Cultural Exchange Programme (CEP) between Italy and India entails exchange of students in language programmes as well as other academic courses.
Scientific Cooperation	• An Agreement on S&T Co-operation has existed since 1978. • The Agreement envisages three yearly action plans under which a maximum of thirty joint research projects can be undertaken. • This agreement was replaced by one signed in Nov 2003. • India-Italy Science and Technology Cooperation(JSTC) has been actively promoting cooperation through joint project proposals.
Defence	• Defence cooperation has traditionally been an important pillar of India-Italy relations. An MOU on Defence Cooperation was signed in November 1994. • The Indian Army has a historical connection with Italy. • India also welcomed Italy's engagement in the Indian Ocean Rim Association (IORA) and Italy's new status as a Development Partner of ASEAN • The navies of both countries regularly co-operate in anti-piracy missions.

Significance
- Italy is among India's top 5 trading partners in the EU(currently fourth). The balance of trade has been in India's favour since the early eighties.
- Italy is an export-oriented economy and Europe's second largest manufacturer, for whom secure supply chains and maritime routes linking Asia to Europe and rules-based trade are important. India as a strong power in indo-pacific can use it to her advantage.
- Hedge against china: current italian government has raised concerns regarding china. India can utilise Italy to influence the EU.

Issues

Lack of separate Frame works	• India does not have a separate trade agreement with Italy like it has for England . engagement with Italy is under the umbrella of EU
Saddled by incidents	• Incidents like treatment of Italian Marines, Cancellation of VVIP chopper deal have worn down the relationship.

IMPORTANT DAYS

World Arthritis Day

Context: When arthritis is mentioned in conversation, it conjures up the image of a senior citizen suffering from joint pain, and perhaps unable to move very well. But arthritis is not only a disease of the old: people of all ages, sexes and races can be affected. To help spread awareness about the existence and impact of rheumatic and muskuloskeletal diseasea (RMDs), October 12 is marked as World Arthritis Day.

Key Highlights
- Arthritis refers to joint pain or joint disease, the inflammation or swelling of one or more joints.
- While there are more than 100 such conditions, two common ones are **osteoarthritis** and **rheumatoid arthritis**.
- In **osteoarthritis**, the cartilage, which is the connective tissue that covers the ends of your bones where they form a joint, wears down, causing the underlying bone to change.
    - It frequently occurs in the hands, knees, hips and spine. Its prevalence tends to increase with age.
    - As per a 2022 paper in the Osteoarthritis and Cartilage journal, 62.35 million people in India had osteoarthritis as of 2019.
- The other common condition, rheumatoid arthritis, is a form of autoimmune inflammatory arthritis.
    - In this the immune system attacks healthy tissue, causing painful swelling in the affected parts.
    - RA affects the lining of your joints, and can eventually lead to bone erosion and joint deformity.
    - While it is common in the hands, wrists and knees, in some people, it can damage a number of organs including the skin, eyes and heart.

How Is Arthritis Treated?
- When it comes to osteoarthritis, there are certain risk factors: women for instance, are more likely to develop it after the age of 50, and genetics too play a role.
    - Treatment options include physical and occupational therapy, medication for the pain and surgical options if other treatment has not worked.
- The specific causes of rheumatoid arthritis are not known, but it is believed that environmental factors, including viral/bacterial infections or smoking, can trigger it in people born with specific genes.
    - While there is no cure for RA, it can be treated and managed with medication, physical therapy and self-management/care.

Prevention
- The first step, if you suspect you have symptoms of arthritis, is to get an accurate diagnosis and then explore treatment options.
- While there is no certain way of doing this, what you can do, if you currently have healthy joints, is maintain their mobility and function, says the website of the U.S.-based Arthritis Foundation.
- As is the case in the prevention of many other diseases, also eat healthy and avoid smoking!

REPORT & INDEX

India Ranks 111 Out of 125 Countries in Hunger Index

Context: India ranks 111 out of a total of 125 countries in the **Global Hunger Index (GHI) 2023**, with its progress against hunger nearly halted since 2015, reflecting a global trend. The Union government, though, contested India's performance for the third year in a row, citing flawed methodology.

The GHI score is based on a formula which combines **four indicators** that together capture the **multi-dimensional nature of hunger, including under-nourishment, child stunting, child wasting, and child mortality.**

Key Highlights

- Afghanistan, Haiti and 12 sub-Saharan countries performed worse than India on the GHI. India's ranking is based on a GHI score of 28.7 on a 100-point scale, where 0 is the best score (no hunger) and 100 is the worst. **This categorises India's severity of hunger as "serious".**

COMPOSITION OF GHI SCORES AND SEVERITY DESIGNATIONS

Note: All indicator values are standardized.

1/3 Undernourishment + 1/6 Child stunting + 1/6 Child wasting + 1/3 Child mortality = GHI SCORE

GHI Severity of Hunger Scale

≤ 9.9 Low	10.0–19.9 Moderate	20.0–34.9 Serious	35.0–49.9 Alarming	≥ 50.0 Extremely alarming

100-point scale

- The Ministry of Women and Child Development yet again questioned the GHI and called it a "flawed measure of hunger that doesn't reflect India's true position".
- The GHI uses the same data sources for all countries to calculate the respective country scores. This ensures that all the rates used have been produced using comparable methodologies.

Related Data and References

Child stunting is prevalent at 35.5% (India's National Family Health Survey(NFHS) 2019-2021)	The prevalence of undernourishment in India is 16.6% (State of Food Security and Nutrition in the World report 2023)	India's child wasting rate is a concerning 18.7% (India's NFHS 2019-21), the highest among all countries in the report.	The under-five mortality rate stands at 3.1% (United Nations Inter-Agency Group for Child Mortality Estimation January 2023)

Indian Government's Response to GHI Report 2023

Criticism of Methodology
- The Ministry of Women and Child Development has raised concerns about the report's methodology, suggesting "serious methodological issues" and "malafide intent."
- Data from the government's Poshan Tracker consistently shows child wasting prevalence below 7.2%, which contradicts the GHI's reported figure of 18.7%.

Focus on Child Health
- The government noted that three out of the four GHI indicators pertain to children's health and may not provide a complete representation of the entire population.

Small Sample Size
- The government expressed doubts about the accuracy of the "Proportion of Undernourished Population" indicator, as it is based on a small sample size opinion poll.

Complex Factors
- The government's argument is that indicators like stunting and wasting are outcomes of various complex factors, including sanitation, genetics, environment, and food utilization, and are not solely attributable to hunger.
- The government also pointed out that child mortality may not solely be an outcome of hunger, indicating that other factors are at play.