



DAILY CURRENT AFFAIRS

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Table of Content

MacDonald Award and Poona Pact of 1932	1
Buddhavanam	3
Concerns in Aadhaar	6
Parliamentary Panel on ESIC	7
Multiple Entry and Multiple Exit (MEME) in Higher studies	8
Galactic Tides	9
Study related to Bottleneck in human evolution	10
Facts In News	12
Kaobal Gali-Mushkoh Valley	12
Norman Borlaug Award	13
India's Aircraft Carriers	14
NASA's first asteroid samples land on Earth	15
Exercise Yudh Abhyas-23	16
Vande Bharat Trains	17
Five Eyes Alliance	18
Nilgiri Tahr	19
India-Indonesia-Australia Trilateral Maritime Exercise	21

MacDonald Award and Poona Pact of 1932

Syllabus: GS1/ History of India and Indian National Movement

News

- Recently, the anniversary of Mahatma Gandhi's fasting unto death, at the Yerawada Central Jail in Pune, against the award of separate electorates to harijans was observed.

MacDonald Award / Communal Award of 1932:

- **Names:** The Communal Award is also known as the MacDonald Award.

- **When?** It was created by the British prime minister Ramsay MacDonald on 16 August 1932 and was announced after the Round Table Conference (1930–32).
- **What?** The award extended the separate electorate to depressed Classes (now known as the Scheduled Caste) and other minorities. Earlier, the separate electorate was introduced in Indian Councils Act 1909 for Muslims and extended to Sikhs, Indian Christians, Anglo-Indians and Europeans by Government of India Act 1919.

View of B. R. Ambedkar

- B. R. Ambedkar supported the award. According to him, the depressed classes form a group by themselves which is distinct and separate from the Hindus.
- For Ambedkar, **bringing an end to the caste system would only be possible if lower castes obtained political power.** He suggested **separate electorates as the form of affirmative action to empower lower castes.**
- He argued that Gandhi was ready to award separate electorates to Muslims and Sikhs, but reluctant to give separate electorates to scheduled castes.
- **Gandhi shunned untouchability, referring to untouchables as harijans** (children of God). However, Gandhi's criticism of untouchability did not lead to him rejecting the institution of caste itself which is the reason for exploitation of lower castes.

View of Mahatma Gandhi

- The Award attracted severe criticism from Mahatma Gandhi.
- It was believed that it had been brought in by the British to create a social divide among the Hindus. Gandhi feared that it would disintegrate Hindu society.

The Yerawada fast and the Poona Pact

- Thus, on September 20, 1932, while imprisoned in the Yerawada Jail in Pune, Gandhi began a fast unto death **against the separate electorates based on caste.**
- Ambedkar succumbed to Gandhi's pressure, inking what would be known as the **Poona Pact. The pact secured reservations for lower castes but put the question of separate electorates to end. I.E. there shall be electoral seats reserved for the Depressed Classes out of the general electorate.**

The Aftermath:

- Many have hailed Gandhi's fast as **ensuring that the British did not get to 'divide and rule'.** Rabindranath Tagore said at the time: "it is worth sacrificing precious life for the sake of India's unity and her integrity."
- **Ambedkar was never satisfied with this outcome.** He would later write in **What Congress and Gandhi have done to the Untouchables**, "The Joint Electorate allows Hindus the right to nominate an untouchable to set nominally as a representative of the untouchables but really as a tool of the Hindus".

- According to Ambedkar, **even with reserved seats, upper castes would numerically dominate lower castes, blunting possibilities for more radical social change** by determining which lower caste candidate to vote for.

Source: [IE](#)

Buddhavanam

Syllabus: GS1/Art & Culture, Literature, GS2/ India & Foreign Relations

In Context

- Buddhavanam is the Buddhist heritage theme park **at Nagarjunasagar**, which the government aims to turn into a world Buddhist tourist destination.

Buddhavanam Project

- **About:** The meticulously planned **Heritage Theme Park** spread across **274 acres** is divided into **eight segments** with the Entrance Plaza itself standing as a big attraction.
 - The Project gives an impressive insight into the major events of the life of **Siddhartha Gautama** and his previous birth stories.
- **Buddhist motifs and symbols:**
 - The Entrance Plaza depicts the **Buddhist motifs and symbols** with a **Dharma Chakra** at the Centre,
 - The **Buddha Charitavanam** near the **Mahastupa** depicts the five major events in the life of Gautama Buddha —
 - The birth,
 - The four encounters,
 - The Great Departure,
 - The Enlightenment, the first discourse and
 - The Mahaparinirvana (the Great Extinction).
 - **Buddhapāda** with the ‘**astamangala**’ (eight auspicious) symbols carved in **Palnadu limestone**, at the entrance of the park, and the **Dhamma bell** are the principal attractions in this segment.
- **Jatakas: Jatakavanam** (Bodhisattva Park) throws light on how a Bodhisattva goes through several lives **practising the ‘dasa pāramitās’** or the ten perfections before he becomes the Buddha.
 - The previous births of the Bodhisattva are illustrated in 547 stories called the ‘**jātakas**’.
 - The Jātakas are very popular in **India, Sri Lanka, Myanmar, Nepal, Cambodia** and other Buddhist countries.
- **Avukana Buddha from Sri Lanka: Dhyavanam** (Meditation Park) consists of a replica of **Avukana Buddha** (27 ft tall), donated by the **Government of Sri Lanka**.

- **Mahastupa:** The most sought-after place in the Buddhavanam project is the **Mahastupa**, the centre of attraction with a width of 42 metres and 21 metres in height.
 - It is built according to the dimensions and architecture of the original Stūpa of Dhanyakataka Amaravati, with a **Vedika (drum), Anda (dome) and a Hārmika** on its top.
- **Miniature stupas of Stupavanam:** A conscious attempt has been made in developing the **Stupavanam** (Miniature Stupa Park) which has Buddhist stupa architecture at one place from:
 - Karla Stupa and Ajanta (Maharashtra),
 - Sanchi (Madhya Pradesh),
 - Sarnath (Uttar Pradesh),
 - Mankiala, (Punjab, Pakistan) and
 - Anuradhapura, Sri Lanka, Kahu-jo-daro (Mirpur Khas, Pakistan),
 - Boudhanath (Nepal),
 - Topdarra (Afghanistan),
 - Wat Mahathat Chedi (Thailand),
 - Pardo Kaling Chorten (Tibet),
 - Shwesandaw (Myanmar), and
 - Gyeongju (South Korea).
- **Initiative of State governments:** The project initially **developed by the Andhra Pradesh** Development Corporation in 2003 was **transferred to the Telangana State Tourism** Development Corporation (TSTDC) after bifurcation.
 - **Telangana, and Andhra Pradesh**, too has a **profound heritage of Buddhism** evident through Nagarjunakonda, Phanigiri in Suryapet, Nelakondapalli in Khammam, Dhuli Katta in Karimnagar.

Significance of Buddhism

- **Pan-Asian presence:** Today, **97 percent of the world's Buddhist population** lives in the Asian continent, and a number of countries such as **Bhutan, Myanmar, Thailand, and Sri Lanka** conceive of Buddhism as intrinsic to their national values and identity.
 - The Buddhist faith, due to its emphasis on **peaceful co-existence** and its **wide pan-Asian presence**, lends itself well to soft-power diplomacy.
- **Revival & international value:** Buddhism's potential utility in foreign policy is derived to a large extent from the manner in which the faith was **revived in the aftermath of the Second World War**.
 - The revival of the faith had a decidedly **internationalist outlook to it**, and focused on **transgressing extant sectarian and geographical boundaries**.

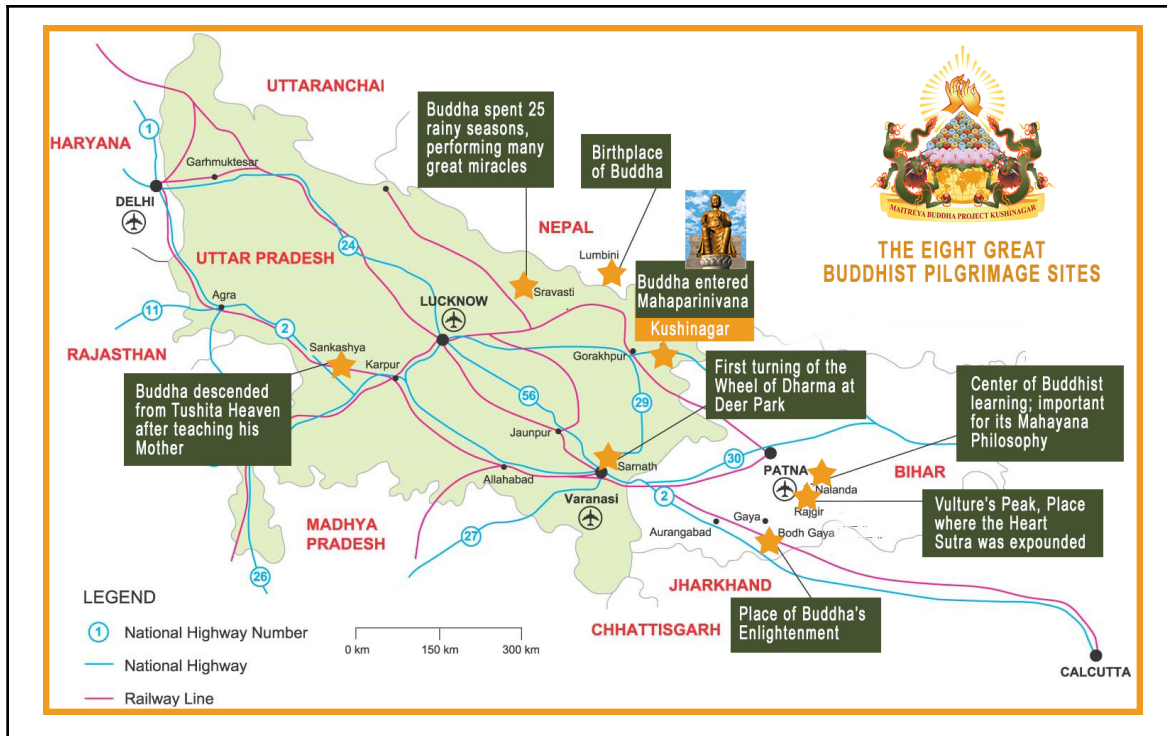
- **India's Soft Power diplomacy through Buddhism:** In speeches made on **official international visits** such as to Sri Lanka and China, among others, India's Prime Minister has made a **conscious effort to emphasise shared Buddhist heritage**.
 - Additionally, on trips to foreign countries, the prime minister reserves one day for **visits to Buddhist temples** wherever possible.

About Gautama Buddha

- **Early Years: Birth:** 563 BC in Lumbini (modern-day Nepal) as **Prince Siddhartha Gautama**.
 - **Parents:** Suddhodana (father) was the chief of the Shakya clan and **Maya Devi (real mother) and Prajapati Gautami (foster mother)**.
- **In search of truth:** He left his worldly possessions and princedom at the age of 30 to lead a life searching for the truth, seeking penance in the hopes of liberating himself from suffering (dukkha).
- **Enlightenment:** He **attained enlightenment** under the **Bodhi Tree in Bodh Gaya** and gave his **first sermon** at **Sarnath** near Varanasi which is known as **Dharma-Chakra-Pravartana** (turning of the wheel of law).
- **Sermons:** He taught in the area around Rajgir, where he was living in a forest monastery built by king Bimbisara of Magadha, and he lived the largest part of his life as The Buddha in Shravasti.
 - He delivered his **last sermon in Vaishali**.
- **Death:** Most people believe he died in **Kushinagar**, Uttar Pradesh, at the age of 80.
- **Avatara of Vishnu:** Buddha is considered as the ninth avatar of Lord Vishnu.

Buddhist Circuit

- India is currently **home to seven of the eight most significant Buddhist sites in the world**.
- The **Ministry of Tourism** is promoting a **number of tourist circuits** that transgress national borders.
 - The holy places of Buddhism, where Lord Buddha was born and He taught, preached, and attained 'Enlightenment' and 'Nirvana', are termed as Buddhist Circuit.



Source: [TH](#)

Concerns in Aadhaar

Syllabus: GS2/Governance

In News

- Global rating major Moody's Investors Service has flagged **concerns about security and privacy vulnerabilities** in centralised identification systems like **India's Aadhaar programme**.

What is Aadhaar?

- Aadhaar number is a **12-digit** random number issued by **the Unique Identification Authority of India (UIDAI)** to the residents of India after satisfying the verification process laid down by the Authority.
- Any individual, irrespective of age and gender, who is a resident of India, may voluntarily enrol to obtain an Aadhaar number.
- Person willing to enrol has to provide **minimal demographic and biometric information**.
 - **Biometric information:** Ten Fingerprints, Two Iris Scans, and Facial Photographs.

India's Aadhaar Programme

- Aadhaar is a strategic policy tool for **social and financial inclusion**, public sector delivery reforms, managing fiscal budgets, increasing convenience and promoting hassle-free people-centric governance.

- The Aadhaar identity platform is one of the key pillars of the ‘**Digital India**’, wherein every resident of the country is provided with a unique identity.
- Aadhaar identity platform with its inherent features of **Uniqueness, Authentication, Financial Address and e-KYC**, enables the Government of India to directly reach residents of the country in delivery of various subsidies, benefits and services **by using the resident’s Aadhaar number only**.

Concerns Flagged

- **Unreliable Biometric Tech:** The system often results in **service denials**, and the reliability of biometric technologies, especially for manual laborers in hot, humid climates, is questionable.
- **Privacy, security concerns:** Moody’s acknowledged Aadhaar as the world’s largest digital ID program however, also mentioned that they have “drawn scrutiny, **especially concerning privacy and security**”.
- **Decentralised systems:** Stressing that ID systems like Aadhaar lead to the concentration of sensitive information with specific entities and **increase the risks of data breaches**, Moody’s supported the **decentralised ID (DID) systems** such as digital wallets, **based on blockchain capabilities** that give users more control of their private data and can reduce online fraud.
- **Negative social repercussions:** At a broader level, it warned that digital IDs, centralised or not, can have negative social repercussions, since they may strengthen group identities and political divides, particularly if offered by technology and social media companies with significant monopolistic influence.

About Moody’s

- John Moody founded Moody’s in 1900, publishing Moody's Manual of Industrial and Miscellaneous Securities.
- It is a global integrated risk assessment firm that empowers organizations to make better decisions.

Source: [TH](#)

Parliamentary Panel on ESIC

Syllabus: GS2/ Government policies & interventions, Statutory bodies

In News

- The **Parliamentary Standing Committee (PSC)** on Labour has asked the Union government to strictly monitor the activities of the **Employees State Insurance Corporation (ESIC)**, so that social security benefits reach more workers.

Findings of the PSC

- In a report submitted in Parliament during the special session, the panel reviewed the functioning of ESI Hospitals, management of the corpus fund, and

recommended guidelines for organising special awareness campaigns about the scheme.

- There is a **need for reviewing the provisions relating to coverage, contribution, entitlement of the wages**, and the wage limit for coverage under the ESIS.
- The panel expressed concern that both the Labour Ministry and the ESIC are not fully geared up to provide extended coverage as envisaged under the **Code on Social Security**.
- The panel asked the Centre to **fill up the vacancies in hospitals and dispensaries**.
- The Committee expects that whatever roadmaps the Corporation has been working on is for the optimum benefit for the most deserving workers of the organised and unorganised sectors whose requirements should be given utmost importance by the Ministry.
- The Committee is of the opinion that before making changes in the percentage of the amount of the investment, the Corporation should make diligent efforts to address these issues so as to meet the requirements of the Insured Persons.

Employees State Insurance Corporation (ESIC)

- It is a **statutory body constituted** under an Act of Parliament (ESI Act, 1948)
- It is responsible for overseeing the ESI plan.
- It works under the Ministry of Labour & Employment.
- It provides socio-economic protection to the worker population and immediate dependent or family covered under the ESI scheme.

Source: [TH](#)

Multiple Entry and Multiple Exit (MEME) in Higher studies

Syllabus: GS2/Education

In News

- The Parliamentary Standing Committee on Education asks Centre to **hold discussions with all stakeholders** on the multiple entry, exit option in higher studies.

What is the multiple entry, exit option in Higher Studies?

- National Education Policy (NEP) 2020 seeks to reform the **Higher Education system** by providing, among other things, **flexibility to students** in terms of **choice of subjects to study and academic pathways**.
- The multiple entry and exit points in the academic programmes offered at **Higher Education Institutions (HEIs)** would **remove rigid boundaries**

and create new possibilities for students to choose and learn the subjects of their choice.

- In addition, it will pave the way for **seamless student mobility, between or within degree-granting HEIs** through a **formal system of credit recognition, credit accumulation, credit transfers, and credit redemption.**

View of Parliamentary Panel

- While MEME looked like a flexible system, which was **being operated by western educational institutions** effectively, **it might not work well in the country.**
- **Pupil-Teacher Ratio:** The estimated intake of students in higher education every year was high. If institutions allow MEME, it would be very difficult for the institutions to predict how many students would exit and how many would join midway.
 - Since institutions would not know the **in- and out-traffic**, it will certainly **disturb the pupil-teacher ratio.**
- **Uneven geographical distribution** of higher educational institutions would **create hurdles in managing MEME** in several areas, mostly countryside.
- **Recommendations:** The panel asked the **Centre to develop comprehensive guidelines** and a **well-defined framework for MEME options**, including specific eligibility criteria, credit transfer mechanisms providing a clear road map for students pursuing different exit points.
 - Implementation of a **standardised Credit Accumulation and Transfer (CAT) system** that allows students to earn and transfer credits seamlessly across institutions would facilitate smooth transitions between different levels of education, from certificate courses to doctoral programmes.
 - The Union Education Ministry to have **wider consultations with various universities/institutions**, their regulatory bodies and other stakeholders to devise ways in view of the difficulties being faced in implementing the MEME options and apprise the panel of it.

Source: [TH](#)

Galactic Tides

Syllabus: GS3/Science and Technology, Space

Context

- Researchers have observed the **Andromeda galaxy** is heading towards the **Milky Way** and found tidal streams near its edges.

About Galactic Tides

- These are the tidal forces experienced by objects affected by the gravitational field of galaxies, such as the Milky Way.
- These are **caused by gravitational forces** within a galaxy, arising in the **interactions between celestial objects** such as stars and gas clouds.
 - When two large galaxies collide or pass close to each other, they exert enormous tidal forces and often produce the most visually impressive demonstrations of galactic tidal behaviour.
- Understanding galactic tides is crucial to understand the complex dynamics and evolution of galaxies over cosmological time in astronomy.
- **Tidal streams (Galactic tides)** near the edges of **Andromeda, the closest galaxy to the Milky Way**, could be signatures of dwarf galaxies.
 - The Andromeda galaxy is heading towards the Milky Way at 110 km/s and will collide in four billion years.

Effects of Galactic Tides

- Galactic tides create **two arms in the galaxy**, just as the Moon creates two tides on opposite sides of the Earth.
- These tides influence various aspects of a galaxy's evolution, and **can reshape a galaxy structure by creating tidal tails and bridges, promoting star formation, and disrupting smaller star systems.**
 - These include **galactic collisions, the destruction of dwarf and satellite galaxies, and the tidal effects on the Oort cloud.**
- **Disrupting the orbits of stars**, leading to long-term changes in galactic structure.

The Oort Cloud:

- It is the most distant region of our solar system. It might contain billions, or even trillions, of objects.
- Even the nearest objects in the Oort Cloud are thought to be many times farther from the Sun than the outer reaches of the Kuiper Belt.
 - It is a giant shell surrounding the solar system, probably over a light-year in radius.

[Source: TH](#)

Study related to Bottleneck in human evolution

Syllabus :GS 3/Science and Technology

In News

- A **Genome sequencing** technique helped reveal a **severe bottleneck** in the growth of the human **population**.

About Study

- A team from China, Italy and the US was able to determine demographic characteristics using modern-day human **genome sequences** from **3,154** individuals and a new analytical method called **fast infinitesimal time coalescent process (FitCoal)**.
- **FitCoal** helped the researchers calculate a **probable population size** through history based on contemporary sequences.

Key Highlights

- Early human ancestors went through a prolonged, severe bottleneck in which approximately **1,280 breeding individuals** were able to sustain a population for about 117,000 years.
- Ancient DNA revealed a '**super-bottleneck**' in human evolution 900 millennia ago, which could have shaped humanity in myriad ways.
- To compare, modern humans are only around 300,000 years old, meaning our early hominid ancestors were almost extinct for a long time.
- Around **65.85 per cent of current genetic diversity** may have been lost due to this bottleneck that happened sometime in the early to middle Pleistocene era.
 - This event may have also been responsible for the event where two **ancestral chromosomes converged** to form what is currently known as chromosome 2 in modern humans.
- **Reasons for bottleneck:** This super-bottleneck in human evolution coincided with drastic changes in climate, including **prolonged periods of glaciation** and **droughts** that could have killed off many other species, diminishing food sources for our ancestors.
- **Recovery :** The recovery of the human population from the super-bottleneck could have been due to **development of more hospitable environmental** conditions, the **control of fire**, and, eventually, some form of **agriculture practice**.

Future Outlook

- The novel finding opens a new field in human evolution because it evokes many questions, such as the places where these individuals lived, how they overcame the catastrophic [climatic] changes, and whether natural selection during the bottleneck accelerated the evolution of the human brain.
- This is also a road map for what lies ahead: as we confront challenges such as climate change and infectious diseases, the lessons from our ancestors' survival can become invaluable.

Do you know ?

- A **bottleneck** is when a population becomes constricted to a small number of individuals.

- When they start a new population, their genomic contributions become more pronounced in that sub-population, and are further amplified in subsequent generations, leading to the **founder effect**.
- **Founder effects** arise from population bottlenecks and also due to other factors, including migration, geographic isolation, and even cultural and marriage practices, such as endogamy and consanguinity.
 - **From a biomedical perspective**, founder effects and populations could also confer specific diseases and traits, common and shared between members, at a higher frequency than their prevalence in the general population.
- Unique matrimonial practices in India have created around 4,000 endogamous groups, many of whom have strong founder effects

Source: TH

Facts In News

Kaobal Gali-Mushkoh Valley

Syllabus:GS1/Geography

News

- Kaobal Gali-Mushkoh Valley, once the battlefield of Kargil war, has been opened up for tourists.

About

- The high-altitude passes of the **Gurez valley, in north Kashmir** is set to connect with the **Mushkoh valley, in Kargil's Drass Sector, Ladakh**, the site of the **Kargil war in 1999**.
- A 130-km road has been opened up for tourists. **Kaobal Gali**, the highest pass at a height of **4,166.9 meters in Gurez**, connects the two valleys.
- The road connecting the two valleys is being maintained under **Beacon (by the Border Roads Organisation)** and at present is a fair-weather road.

Gurez valley

- **The Gurez valley** is close to the Line of Control (LoC) **in north Kashmir**, situated at about 2,400 meters above sea level.
- It is also home to **ibex, musk deer and marmots, Himalayan brown bear and snow leopard**. The **Kishanganga River** flows through the valley.
- The Gurez valley is one of few habitations in Kashmir where villages with only log houses exist, with no intervention of urban concrete materials.

Mushkoh Valley

- The Mushkoh Valley is situated in **Dras, Ladakh**.
- It is home to boisterous wild tulip flowers and **endangered Himalayan yew**.

Source:[TH](#)

Norman Borlaug Award

Syllabus: GS3/Economy/Science and Technology

In News

- **Swati Nayak** became only the **third Indian agriculture scientist** to win the prestigious **Norman E. Borlaug Award for 2023**.

Who is Swati Nayak?

- She is an agriculture scientist fondly called **Bihana Didi (Seed Lady)** by local communities in Odisha.
- Ms. Nayak and her team formulated a strategy for introducing the drought-tolerant **Sahbhagi Dhan rice variety in Odisha**.
 - She is recognized for her innovative approach to engaging smallholder farmers in demand-driven rice seed systems, from testing and deployment to equitable access and adoption of climate-resilient and nutritious rice varieties.

Sahbhagi Dhan

- It is a **highly drought tolerant variety** and recommended for cultivation in **rainfed upland and lowland areas** of eastern states, particularly in Jharkhand, Bihar, Uttar Pradesh and Odisha.
- It matures in 105-110 days in plain areas and 110-115 days in upland.
- It is **highly resistant** to leaf blast and moderately resistant to brown spot and sheath blight.
- It brought about a **major change in rain-fed areas**. The variety became an integral element of every farmer family's diet and crop rotation.

The Dr. Norman E. Borlaug Award

- It is the award for Field Research and Application, endowed by the **Rockefeller Foundation**, is presented every October in Des Moines, Iowa, by the **World Food Prize Foundation**.
- This \$10,000 award recognizes exceptional, science-based achievement in **international agriculture and food production** by an individual **under the age of 40**.
- The recipients of the are selected by an **anonymous international jury**, chaired by **Dr. W. Ronnie Coffman of Cornell University**.
 - Dr. Coffman, who was **Dr. Borlaug's only doctoral student**, serves as a member of the World Food Prize Council of Advisors.

Who is Dr. Norman E. Borlaug?

- He is a scientist with outstanding contributions **integrating the various streams of agricultural research into viable technologies.**
- He was awarded the **Nobel Peace Prize in 1970** for having given a well-founded hope - **the green revolution.**
- He developed **successive generations of wheat varieties** with broad and stable disease resistance, broad adaptation to growing conditions across many degrees of latitude, and with **exceedingly high yield potential.**
- These new wheat varieties and improved crop management practices **transformed agricultural production in Mexico** during the 1940's and 1950's and later in **Asia and Latin America**, sparking what today is **known as the "Green Revolution."**

Source: [TH](#)

India's Aircraft Carriers

Syllabus :GS 3/Defence

In News

- The Defence Procurement Board (DPB) discussed the Navy's proposal for acquiring a second **Vikrant-like aircraft carrier.**

About the project

- The project, estimated to cost around ₹40,000 crore, will see some modifications and upgrades to the design of the country's **first Indigenous Aircraft Carrier (IAC) INS Vikrant, commissioned** in September 2022, and will also be manufactured by **Cochin Shipyard Ltd. (CSL).**

India's Aircraft Carriers

- **INS Vikrant** : INS Vikrant is designed by Indian Navy's in-house Warship Design Bureau (WDB) and built by Cochin Shipyard Limited, a Public Sector Shipyard under the Ministry of Ports, Shipping & Waterways
 - It has been built with state of the art automation features and is the **largest ship ever built** in maritime history of India. It was launched into water in 2013 and commissioned in 2022.
 - The Indigenous Aircraft Carrier is named after her illustrious predecessor, **India's first Aircraft Carrier** which had played a vital role in the 1971 war.
- **INS Viraat** : INS Viraat was originally commissioned by the British Royal Navy as HMS Hermes on November 18, 1959.
 - INS Viraat was finally commissioned by the Indian Navy on 12 May 1987.
 - INS Viraat's first major operation was '**Operation Jupiter**' in July 1989 as part of Peacekeeping Operations in Sri Lanka, following the breakdown of the Indo- Sri Lankan Accord of 1986.

- It also played a pivotal role in **Operation Parakram**, which was carried out in the wake of the 2013 terrorist attack on the Indian Parliament.
- By establishing a blockade against Pakistan during the 1999 Kargil War, the INS Viraat also played a crucial part in **Operation Vijay**.
- **INS Vikramaditya- Indian Navy's Biggest Ship** : Russia's refurbished Admiral Gorshkov was commissioned into the Indian Navy as **INS Vikramaditya** at Severodvinsk, Russia on November 16, 2013.
 - It is a state-of-the-art ship, capable of operating a versatile range of high-performance aircrafts, such as the MiG 29K fighters, KM 31 AEW helicopters, multi-role Sea Kings and utility Chetaks.

Significance of Aircraft Carriers

- Aircraft carriers are extremely strong and have powerful weapons.
- Their military capabilities, which include **carrier borne aircraft**, have completely changed the marine domain.
- An aircraft carrier offers incredibly flexible operational options.
 - Surveillance, air defence, airborne early warning, protection of Sea Lines of Communication (SLOC), and anti-submarine warfare are some of its principal functions.
 - For India, the carrier battle group, with its inherent combat elements and firepower, becomes a key capability to establish effective air dominance and efficient sea control.
- Three aircraft carriers were an “unavoidable requirement” to meet any eventualities and stated that taking into account the long coastline and hostile adversities on both sides of the Indian peninsula, an aircraft carrier on both sides of the coast was “quintessential” to uphold operational requirements.

Source:[TH](#)

NASA's first asteroid samples land on Earth

Syllabus: GS3/Science and Technology, Space

Context:

- NASA capsule carrying first asteroid samples from Benu, the carbon-rich asteroid, lands on Earth.

About:

- **The Origins, Spectral Interpretation, Resource Identification, and Security-Regolith Explorer (OSIRIS-REx) spacecraft** released the sample from the **Benu asteroid** in the Utah desert of the USA.
- The sample containing pebbles and dust represent the **biggest haul from beyond the moon** that will help scientists **to understand better about**

Earth and our solar system, and help scientists **to investigate how planets formed and how life began.**

- Because materials of Benu are so old, it may contain organic molecules similar to those that could have been involved with the start of life on Earth.
- **Japan**, the only other country to bring back asteroid samples.
 - A sample from the **Asteroid Ryugu**, having a rich complement of organic molecules, delivered by **Japan's Hayabusa2 spacecraft.**

Benu Asteroid:

- It was discovered in 1999, likely broke off from a much larger carbon-rich asteroid about 700 million to 2 billion years ago. It has seen more than 4.5 billion years of history.
 - **Asteroids**, sometimes called **minor planets**, are rocky, airless remnants left over from the early formation of our solar system about 4.6 billion years ago.
 - It likely formed in the **Main Asteroid Belt between Mars and Jupiter**, and has drifted much closer to Earth since then.
 - It is a small, **near-Earth asteroid** that **passes close to Earth** about **every six years.**
 - Benu is expected to come **dangerously close to Earth in 2182.**
 - The data collected by Osiris-Rex will help with **asteroid-deflection efforts.**
- After dropping off the sample, the **Osiris-Rex spacecraft began a new mission as OSIRIS-APophis EXplorer (OSIRIS-APEX)** and headed toward an encounter with **asteroid Apophis in 2029.**

[Source: The Hindu](#)

Exercise Yudh Abhyas-23

Syllabus: GS-3/Defence

Context

- The 19th edition of “**EXERCISE YUDH ABHYAS**” will be conducted in Fort Wainwright, Alaska, USA.

About the Exercise:

- It is an annual exercise conducted jointly by the **Indian Army and the United States Army that began in 2004.**
- The **18th edition** of the Exercise was conducted in **Auli, Uttarakhand, India** in November 2022.
- **Aim:** The drill is conducted with the aim of exchanging best practices, tactics, techniques and procedures between the armies of the two countries.
- **Theme 2023:**Employment of an Integrated Battle Group in Mountain/Extreme Climatic Conditions

Other Exercises with USA

- VAJRA PRAHAR
- SANGAM (IN-US EOD Ex)
- RED FLAG
- COPE INDIA

Source: [PIB](#)

Vande Bharat Trains

Syllabus: GS3/Infrastructure/Railways

Context:

- The Prime Minister of India flagged off nine Vande Bharat trains connecting religious and tourist destinations across 11 States.

About:

- The nine new Vande Bharat trains are:
 1. Udaipur-Jaipur;
 2. Jamnagar-Ahmedabad;
 3. Patna-Howrah;
 4. Ranchi-Howrah;
 5. Rourkela-Bhubaneswar-Puri;
 6. Hyderabad-Bengaluru;
 7. Vijayawada-Chennai (via Renigunta);
 8. Tirunelveli-Madurai-Chennai; and
 9. Kasara-god-Thiruvananthapuram.
- These nine trains will boost connectivity across eleven states namely Rajasthan, Tamil Nadu, Telangana, Andhra Pradesh, Karnataka, Bihar, West Bengal, Kerala, Odisha, Jharkhand and Gujarat.
- These trains, equipped with advanced safety features, including **Kavach**, will be a key step towards providing **modern, speedy and comfortable** means of travel.
- These trains have improved **aerosol-based fire detection** and suppression systems.

Steps taken for Technology Development for Modernisation of Railways:

- **Budget 2023** for railways is about **8 times the rail budget of 2014**.
- **PM Gatishakti Masterplan** for seamless coordination in infrastructure development;
- **New Logistics policy** for reduction in transportation and exports related charges;
- **Multimodal connectivity** as one mode of transport should support other modes;

Amrit Bharat Station Scheme:

- The Railways will take up the **upgradation and modernisation of 1309 Railway stations** under the Scheme on a continuous basis.
- It envisages improvement of building, integrating the station with both sides of the city, **multimodal integration** and amenities for Divyangjans, and sustainable and environment-friendly solutions.
- It has provisions for **ballastless tracks, Roof Plazas** as per necessity, phasing, and feasibility, and the creation of city centres at the station in the long term.
- The work of redevelopment of more than 500 major stations built during the Amrit Kaal will be called **Amrit Bharat Stations**.
 - The term '**Amrit Kaal**' was first coined in 2021 during the **75th Independence Day** celebrations, which describes the hope for a better future, where India would be self-reliant and fulfil all of its humanitarian obligations.

[Source: PIB](#)

Five Eyes Alliance

In News:

- Amid recent standoffs between **India and Canada** the Five Eyes Alliance has emerged in the news.

What is Five Eyes Alliance?

- Five Eyes is a secret agreement between **Australia, Canada, New Zealand, the United Kingdom and the USA**.
- The parties are **diverse societies**, governed by rule of law and robust human rights and are bonded by a **common language** which aid the partners in sharing information with one another **to protect their shared national interests**.
- **Background:** It was established in 1946 between the **United States and the United Kingdom after WWII**.
 - It expanded to include **Canada in 1949** and **Australia and New Zealand in 1955**.
- **9 Eyes and 14 Eyes:** It later enlarged its core group to '**Nine Eyes**' and **14 Eyes** alliances as well.
 - The '**Nine Eyes**' group expands to cover the **Netherlands, Denmark, France and Norway**, whereas the **14 Eyes** bloc further includes **Belgium, Italy, Germany, Spain and Sweden**.
- **Functioning:** The members employ various communication methods, including **Signals Intelligence (SIGINT)**, to monitor the activities of the citizens in other member countries.
 - They maintain this closeness through the **Five Eyes Intelligence Oversight and Review Council**, an entity that facilitates the exchange

of views, best practices, and annual in-person meetings among non-political intelligence oversight and review agencies of the member countries.

Source: [IE](#)

Nilgiri Tahr

Syllabus:GS3/ Environment, Species in News

News

- Tamil Nadu is working on a standardized protocol to count the population of the Nilgiri Tahr.

About

- Nilgiri tahr is **endemic to the Western ghats** and locally known as '**Varaiaadu**. It is the **State animal of Tamil Nadu**.
- The Nilgiri tahr is the **only mountain ungulate in southern India** amongst the 12 species present in India.
- It is also mentioned in the **Tamil Sangam literature** dating back to 2,000 years. The late **Mesolithic (10,000-4,000 BC)** paintings highlight the significance of the Tahr in folklore, culture and life.

Conservation status

- The population of Nilgiri Tahr has been estimated at **3,122** individuals in the wild as per a report released by **WWF India in 2015**.
- **IUCN status:** Endangered
- The species is protected under **Schedule I of the Wildlife (Protection) Act of India, 1972**.

Habitat and Distribution

- The Nilgiri tahr inhabits the open **montane grassland** habitats at elevations from **1200 to 2600 m** of the South Western Ghats.
- The distribution is along a narrow stretch of 400 km in the Western Ghats between **Nilgiris** in the north and **Kanyakumari hills** in the south of the region.
- Tahrs is living in various habitats, including the **Nilgiris hills; Siruvani hills; Anamalais**, high ranges and **Palani hills; Srivillipudur, Theni** and **Tirunelveli hills;** and the **Kalakad Mundanthurai Tiger Reserve** and **Ashambu hills**.
- **The Eravikulam National Park in Anamalai hills**, Kerala, is home to the largest population of the Nilgiri tahr, with more than 700 individuals.

Threat

- Historically, the Nilgiri Tahr was known to inhabit a large portion of the Western Ghats. But today it remains restricted to a few scattered patches in **Tamil Nadu and Kerala**.

- It has become **locally extinct in around 14% of its traditional shola forest-grassland habitat.**
- **Anthropogenic pressures:**The species is facing habitat loss due to rampant deforestation, hydroelectric projects in Nilgiri tahr habitat, and monoculture plantations, Occasional hunting for its meat and skin etc.
- **Natural causes:** Spread of invasive plants such as wattles, pines, and eucalyptus in the grasslands; forest fires; Highly fragmented populations are some reasons for their dwindling population.
- **Lumpy skin disease** has also been observed in the animal.



Conservation Initiatives

- **Project Nilgiri Tahr:**
 - **Tamil Nadu government in 2022**, launched the initiative for the conservation of the Nilgiri Tahr. The project is to be implemented from **2022 to 2027**.
 - Under the project, the government plans to develop a better understanding of the Nilgiri Tahr population through surveys and radio telemetry studies; reintroduce to their historical habitat; address proximate threats; and increase public awareness of the species.
 - **'Nilgiri Tahr Day'** on **October 7** will be celebrated in honor of **E.R.C. Davidar**, who was responsible for pioneering one of the first studies of the species in **1975**.
- **WWF India's Nilgiri Tahr conservation initiative:**
 - WWF India initiated its conservation work on Nilgiri tahr in **2008**. In **2012**, an assessment was carried out on Nilgiri tahr's status in the Western Ghats.
 - WWF India published a report on the comprehensive study of the Nilgiri tahr population and its habitat in the hills of Tamil Nadu and Kerala in **2015**.

Source:[TH](#)

India-Indonesia-Australia Trilateral Maritime Exercise

Syllabus: GS-3/Internal Security

Context

- Indian Navy's warship INS Sahyadri, in the Indo-Pacific, actively participated in the maiden trilateral Maritime Partnership Exercise with the ships and aircraft from the Royal Australian Navy (RAN) and Indonesian Navy.

About the Exercise

- This is the **first trilateral exercise** which aims to bolster the partnership between India, Australia, and Indonesia, fostering a collective effort to enhance stability, peace, and security in the Indo-Pacific region.
- It offered an invaluable opportunity for the participating navies to share their knowledge and expertise.

Other Exercises

- **Between India and Australia**
 - AUSTRALIA HIND (Army)
 - AUSINDEX (Navy)
- **Between India and Indonesia**
 - GARUDA SHAKTI (Army)
 - IND-INDO CORPAT (Navy)
 - SAMUDRA SHAKTI (Navy)

About INS Sahyadri

- It is the third ship of the indigenously designed and built Project-17 class multirole stealth frigates was built at Mazagon Dock Ltd, Mumbai.
- It was launched in 2005 and commissioned in 2012.
- The warship's ability to confront threats across many domains is provided by this weaponry, ensuring its prowess in both offensive and defensive naval operations.
- Additionally, its anti-submarine warfare suite, which includes cutting-edge sonar equipment and anti-submarine warfare helicopters, strengthens its ability to precisely detect and thwart undersea threats.

Source: [PIB](#)