

WEEKLY CURRENT AFFAIRS MAGAZINE for



# U.P.S.C. - C.S.E.

## OCTOBER-VOL-IV-2021

23 October to 31 October



- 
- UPSC/MPSC/NDA/CDS/CAPF/AFCAT
  - PUNE/THANE/DADAR/ANDHERI
  - Offline/Online batches/Video course
  - [www.pioneeracademypace.com/in](http://www.pioneeracademypace.com/in)
  - IVR No. -75060 10635
-

# PI NEER ACADEMY

## PUNE



### PUNE Address:

301/5 3<sup>rd</sup> Flr, Pinnacle Prestige (Near Durvankur Hotel), Above Cosmos Bank, Opp. Maharashtra Electronics, Tilak Road, Sadashiv Peth, Pune - 411 030  
Mob.: 91453 39324 / 25

## THANE



### THANE Address:

201/202, 2<sup>nd</sup> Floor, Laizer Arcade, Raghoba Shankar Road, Chendani, Thane(W) - 400 601.  
Mob.: 75060 10635

Email : [pioneeracademypace@gmail.com](mailto:pioneeracademypace@gmail.com)

Website: [www.pioneeracademypace.com](http://www.pioneeracademypace.com) / .in

IVR Number : 8080 046 046

## ANDHERI



### ANDHERI Address:

3<sup>rd</sup> Flr, Syndicate Chamber, Above Vaibhav Restaurant, Next To Better Home Hotel, Opp. Andheri (E) Station, Andheri (E) - 400 601  
Mob. 84518 55673 / 70302 92316

## DADAR



### DADAR Address:

306/7/8, 3<sup>rd</sup> Flr, Blue Pearl Society, Senapati Bapat Road, Plot No. 14, Near Janata Cloth Market, Near Dadar Railway Station, Dadar (W), Mumbai-400 028  
Mob : 93241 69627 / 91375 41508

*Success is born of action...*

## Topic 1. PLASTIC POLLUTION

*Importance for Prelims: Environment*



Plastic pollution in aquatic systems may triple by 2040: UNEP

- The microbial community on plastic debris — the plastisphere — now covers the multiple biomes on Earth.
- From the private components of the sea to the most faraway oceanic islands, plastics and microplastics are all-pervasive.
- A new report with the aid of the United Nations Environment Programme (UNEP) has rung alarm bells: The quantity of plastics within the oceans has been estimated to be round seventy five-199 million tonnes at present.
- Without meaningful action, emissions of plastic waste into aquatic ecosystems are projected to nearly triple by 2040.
- It could more than double by 2030, according to the assessment.
- The report talks about the extreme pressures being exerted on the planet due to plastic pollution and the need for urgent action to offset it.

- The document flagged that underneath a enterprise-as-common situation and in the absence of necessary interventions, the quantity of plastic waste coming into aquatic ecosystems should almost triple from nine-14 million tonnes a year in 2016 to 23-37 million tonnes a year by using 2040.
- Of the seven billion tonnes of plastic waste generated to date, an anticipated 10 percent was recycled, 14 percent incinerated and the remaining 76 percent went into landfills, dumps, and littered within the herbal surroundings.
- The estimated annual loss in the value of plastic packaging waste during sorting and processing alone is \$80-120 billion.
- Plastics categorised as biodegradable may additionally take hundreds of years to degrade inside the oceans; clutter poses comparable risks to individuals, biodiversity, and surroundings functioning.
- The predominant assets of marine litter and plastic pollutants are land-based.
- Approximately 7,000 million of the predicted nine,200 million tonnes of cumulative plastic manufacturing between 1950 and 2017 have become plastic waste.
- At least three-quarters of this have been discarded and positioned in landfills, became a part of mismanaged waste streams, or become dumped and deserted in the surroundings, consisting of within the sea.
- The mismanagement of waste from African and Asian watersheds might also result in the discharge of millions of tonnes of litter and plastic waste into the arena's principal terrestrial and aquatic ecosystems and sooner or later into the oceans, in step with a 2019 Nature document.
- Plastic can also alter global carbon cycling through its effect on plankton and primary production in marine, freshwater and terrestrial systems.

Marine ecosystems — specifically mangroves, seagrasses, corals, and salt marshes — play a chief role in sequestering carbon.

- The more damage we do to oceans and coastal areas, the harder it's for those ecosystems to each offset and stays resilient to weather alternate.
- This assessment provides the strongest scientific argument to date for the urgency to act, and for collective action to protect and restore our oceans from source to sea.
- A fundamental situation is the destiny of breakdown merchandise, which includes micro plastics and chemical components, many of which might be known to be poisonous and unsafe to each humanand wildlife health as well as ecosystems.

## **Topic 2. NON-FUNGIBLE TOKEN (NFT)**

### ***Importance for Prelims: Economy***

NFTs gain traction with celebrities on board

- Led by celebrities that include Bollywood actors, designers and cricketers, non fungible tokens, or NFTs, are slowly gaining traction in India.
- Experts say the NFT marketplace continues to be small and really area of interest in nature, however investor hobby is without a doubt selecting up.
- At present, the NFT market is still very nascent and there are not enough collectors, comparing it to crypto currencies in 2013.
- NFTs have various advantages for artists and celebrities.
- They offer an possibility to monetise their on-line or virtual content material, which in any other case on social media, could have simply generated likes or led to greater followers.
- It presents royalty to the artist while the NFT is sold in the secondary market and also presents the authenticity of virtual content material.

## Topic 3. INDIAN TELEGRAPH RIGHT OF WAY (AMENDMENT)

### RULES 2021

*Importance for Prelims: Economy*

**Connected Cables**

**DoT has amended Indian Telegraph Right of Way Rules**

**Prescribes one-time compensation of ₹1,000 per km for laying overhead OFC**

**It will lead to a uniform levy/fee charged by local authorities**

**Ease RoW-related permission procedures**

Amended telegraph right of way rules notified

- The government notified Indian Telegraph Right of Way (Amendment) Rules, 2021 to contain the provisions related to nominal one-time repayment and uniform system for establishment of over floor telegraph line in the Indian Telegraph Right of Way Rules, 2016, and it has constant a cap of ₹1,000 consistent with km.
- The amount of one-time compensation for establishment of over ground telegraph line will be maximum ₹1,000 per km.
- Documentation for RoW application for over floor telegraph line has been made easy.
- In earlier notifications it was ₹1,000 only per km, but the State local municipalities have always objected they be charged more and demanded

more for the compensation.

- And, earlier the RoW Rules had covered only underground optical fibre cable (OFC) and mobile towers.
- The notification said there will also be no rate other than administrative fee and healing expenses for establishing, maintaining, working, repairing, transferring, or shifting the underground and over ground telegraph infrastructure
- The notification introduced that e-governance and monetary inclusion could be reinforced, doing enterprise may be clean, statistics and conversation needs of citizens and firms could be fulfilled, and in the long run the dream of India's transition to a digitally empowered economy and society will be translated into a reality.

## Topic 4. MADHUBANI PAINTINGS

*Importance for Prelims: Art and Culture*



An NIFT graduate helps women in Bihar put their traditional painting skills to use in an innovative manner

- Madhubani means ‘forest of honey’.
- Origin: Madhubani painting has its origins in Mithila region of Bihar.
- The painting is one of the oldest and most famous Indian art forms which is also practised in Nepal.

- Traces of Madhubani artwork also can be noticed in the Ramayana, the Indian epic.
- It is also known as Mithila or Madhubani art.
- **Characteristics:** These paintings are famous due to their tribal motifs and use of shiny earthy colors.
- Traditionally the women of the village drew those paintings at the partitions of their dwelling, as an indication in their emotions, hopes, and thoughts.
- Today men are also involved to meet the demand.
- **Style:** It includes geometrical patterns, floral, animal and bird motifs.
- **Colours:** The colorings utilized in art work incorporate natural extracts from vegetation and other herbal resources.
- **E.g.:** Black coloration is obtained by using blending soot with cow dung; blue from indigo; white from rice powder; orange from Falasha vegetation, and so on.
- The colours are applied flat with no shading and no empty space is left.
- These are usually dark and bright with pigments like lampblack (obtained from coal) and ochre (earthy yellow pigment).
- These paintings are not made with modern brushes but rather with twigs, matchsticks, and fingers.
- But now artists use brushes, nib-pens, and synthetic colors as properly to color.
- **Themes:** It is based on the mythological characters which depict the life of Hindu deities like Krishna, Rama, Lakshmi, Shiva, Durga, and Saraswati.
- The designs widely painted are of Tulasi plant, court scenes, wedding scenes, social happenings etc.

- Also, heavenly bodies like the Sun and the Moon often form the centrepiece of paintings.
- Eminent Artists: Karpuri Devi, Mahalaxmi and Dulari.
- These artwork are popular because of their tribal motifs and use of bright earthy shades.

## **Topic 5. WILDLIFE (PROTECTION) AMENDMENT ACT 2021**

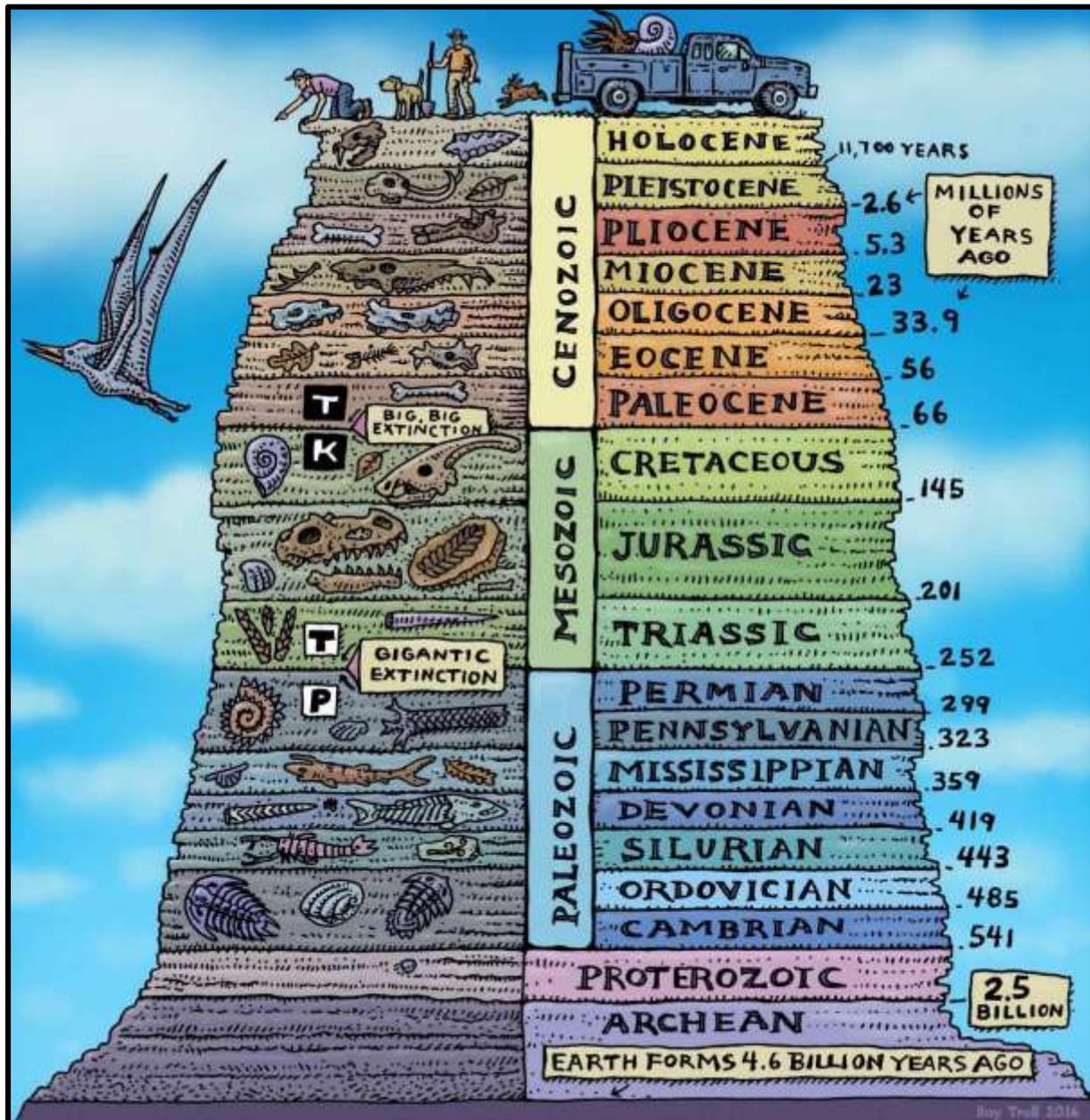
### ***Importance for Prelims: Environment***

Proposed Wildlife Act amendments surprise environmentalists

- The Wildlife (Protection) Amendment Act, 2021, amongst other matters, proposes decreasing the wide variety of schedules and establishing a Standing Committee of State Board for Wildlife.
- “The Standing Committee shall consist of the Vice-Chairperson, the MemberSecretary, and not more than ten members, to be nominated by the ViceChairperson, from amongst the members of the State Board for Wildlife,” the draft says.
- There is also the insertion of a new section 42A about surrender of wild animals and products.
- Any article or animal surrendered below this Section shall emerge as assets of the State Government and the provisions of Section 39 will be relevant to it.

## Topic 6. ANTHROPOCENE

*Importance for Prelims: History*



Living in the Anthropocene, we need to guard against any further damage to the natural world.

- The Anthropocene Epoch is an unofficial unit of geologic time, used to

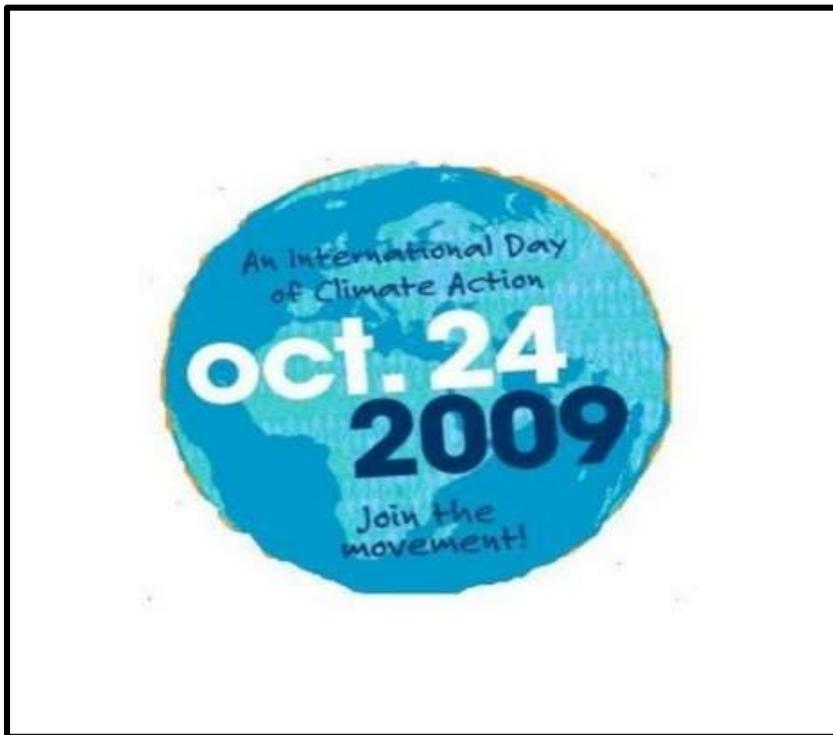
explain the maximum latest period in Earth's records while the human hobby started to have a considerable effect on the planet's climate and ecosystems.

- The phrase Anthropocene is derived from the Greek phrases anthropo, for “man,” and cene for “new,” coined and made famous by way of biologist Eugene Storer and chemist Paul Crutzen in 2000.
- Scientists still debate whether the Anthropocene is different from the Holocene, and the term has not been formally adopted by the International Union of Geological Sciences (IUGS), the international organization that names and defines epochs.
- The primary question that the IUGS needs to answer before declaring the Anthropocene an epoch is if humans have changed the Earth system to the point that it is reflected in the rock strata.
- A popular theory is that it began at the start of the Industrial Revolution of the 1800s, when human activity had a great impact on carbon and methane in Earth's atmosphere.
- Others assume that the start of the Anthropocene ought to be 1945. This is when humans tested the first atomic bomb after which dropped atomic bombs on Hiroshima and Nagasaki, Japan.
- The resulting radioactive particles were detected in soil samples globally.
- Geologic Time Scale Earth's history is divided into a hierarchical series of smaller chunks of time, referred to as the geologic time scale.
- These divisions, in descending length of time, are called eons, eras, periods, epochs, and ages.
- These units are classified based on Earth's rock layers, or strata, and the fossils found within them.
- From examining those fossils, scientists understand that some organisms are feature of positive elements of the geologic file.

- The study of this correlation is referred to as Officially, the modern-day epoch is referred to as the Holocene, which started eleven, seven hundred years ago after the closing predominant ice age. International Union of Geological Sciences (IUGS) The International Union of Geological Sciences (IUGS) is an international nongovernmental organization devoted to international cooperation in the field of geology.
- The International Union of Geological Sciences (IUGS), founded in 1961, with 121 national participants, representing over one million geoscientists, is one of the World's largest clinical agencies.
- It encourages international co-operation and participation inside the Earth sciences when it comes to human welfare and is a member of the International Science Council (ISC).
- Membership is open to countries or defined regionsInternational Commission on Stratigraphy The International Commission on Stratigraphy (ICS), on occasion cited unofficially because the "International Stratigraphic Commission", is a daughter or major subcommittee grade scientific daughter business enterprise that concerns itself with stratigraphical, geological, and geochronological matters on a global scale.
- It is the largest and oldest subordinate body of the International Union of Geological Sciences (IUGS).
- The ICS is essentially a permanent working subcommittee, which meets a ways extra frequently than the quadrennial conferences scheduled by the IUGS, whilst it meets as a congress or membershipof the whole.
- It is the official keeper of geologic time, i.e. it precisely defines units (periods, epochs, and age) of the Geologic Time Scale.

## Topic 7. INTERNATIONAL DAY OF CLIMATE ACTION

*Importance for Prelims: Environment*



International Day of Climate Action: All talk, no show on Paris Agreement targets

- The world economy is envisioned to cut back with the aid of 6 percent in 2020.
- This is happening while the sector is witnessing a number of its worst storms, warmth waves, ice melting, and wildfires, making the twin challenges of weather change and COVID-19 one of the worst intervals in human history for the reason that Thirties.
- Many like Germany and France are also trying to combine climate exchange mitigation into their submit-pandemic financial healing strategies.

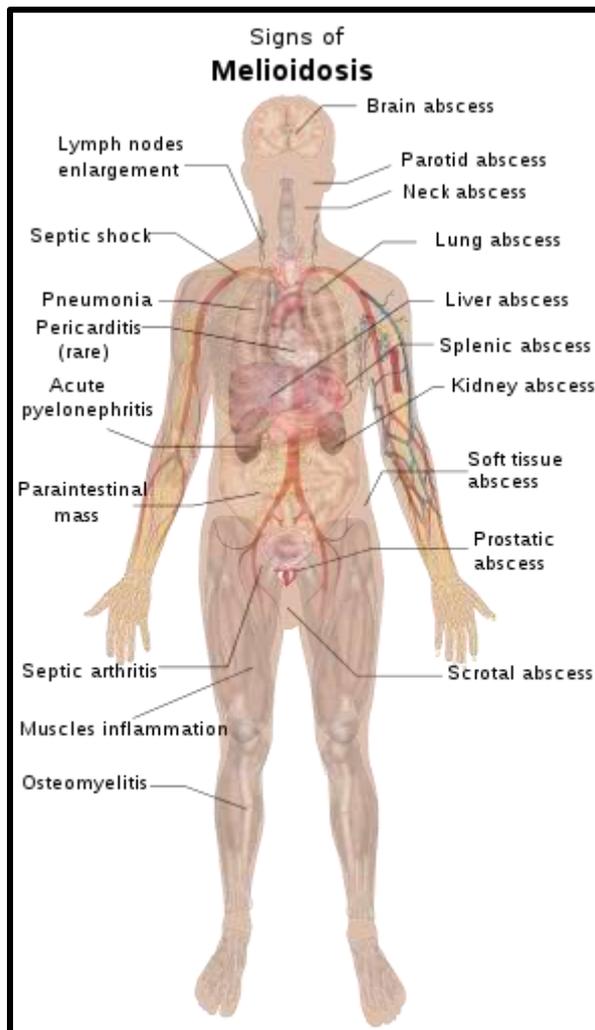
- International Energy Agency (IEA) has planned a 3-12 months funding totaling \$1 trillion to work in the direction of a inexperienced publish-pandemic recovery, in step with its World Energy Outlook Special Report launched in June 2020.
- The IEA, will now invest in initiatives like strength efficiency, wind, and sun power.
- That would cut down 4.5 billion tonnes of carbon dioxide emissions over the next three years and add 1.1 per cent to the global economic growth every year.
- There is also a renewed stress on innovation and new technology as evidenced with the aid of the European Clean Hydrogen Alliance launched with the aid of the European Union (EU) in July 2020.
- On September 22, Chinese Premier Xi Jinping speaking at the virtual 75th meeting of the United Nations General Assembly announced that his country would become carbon neutral by 2060.
- This turned into the first such lengthy-time period mitigation declaration to come from the biggest greenhouse gas (GHG) emitter on the planet, which money owed for 28 in keeping with cent of general emissions.
- China relies heavily on fossil fuels to fulfill its electricity desires each for its large production zone as properly domestic consumption.
- Therefore, it'd want a giant overhaul of its power area on the way to obtain its intended goals. Intergovernmental Panel on Climate Change's (IPCC's) Global Warming of 1.5°C report had said in 2018 that the world would have to be carbon-neutral by 2050 to contain the planet's warming to less than 1.5°C over pre-Industrialisation levels.
- EU is also ramping up its weather action, aiming for a extra bold 2030 goal, and climate neutrality via 2050.
- China, the EU, and the US account for 45 percent of world GHG

emissions.

- Under the current scenario, according to IPCC, the Earth is on a path to be warmed by 1.5°C between 2030 and 2052.
- Climate Change Performance Index (CCPI) 2020, released by non-profits Climate Action Network, German Watch and New Climate Institute, no country has done well enough to get into the very High rating in the index which is basically the pinnacle three ranks of the index.
- The index takes into account GHG emissions of countries in a particular year giving it a 40 per cent weightage, along with renewable energy, energy use and climate policy, giving each of them 20 per cent weightage.
- Both China and the EU, which have made major announcements, are under medium performers.
- The US, however, changed into the worst performer at the index. Some vital records – Current global pledges will go away the arena 2.Four stages C (1.9-three levels C) hotter by way of 2100.
- The modern-day national regulations are even much less bold and could push the temperature by using 2.9 tiers C (2.1-3.Nine degrees C).

## Topic 8. MELIODOSIS

*Importance for Prelims: Science and Tech*



India- made spray linked to rare illness in U.S.

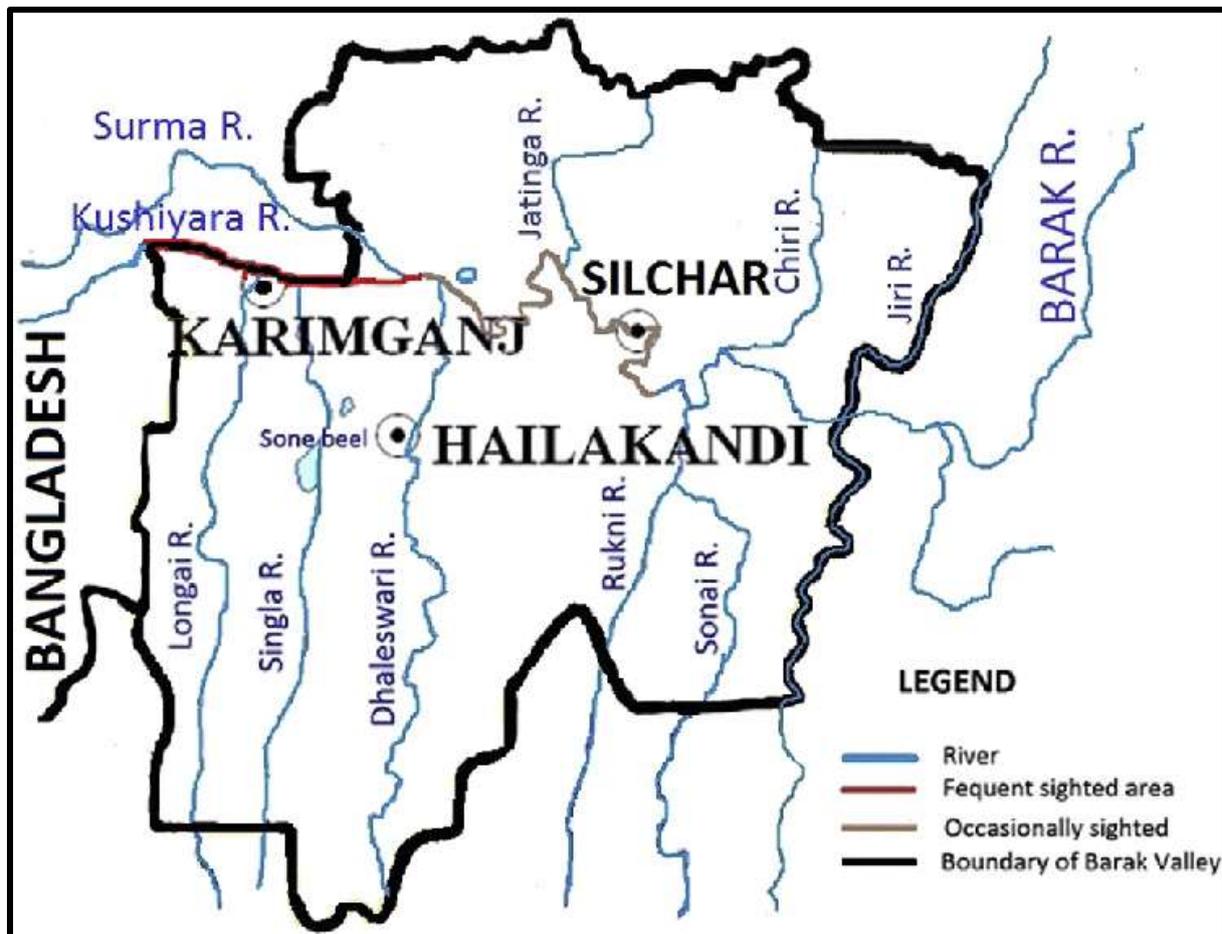
- A made-in-India aromatherapy spray is being pulled off retail large Walmart's shelves inside the United States after clinical research connected it to melioidosis, an unprecedented sickness that has sickened at least four and may have triggered two deaths, in u. S.
- The spray turned into pronounced to contain a bacterium, *Burkholderiapseudomallei*, that causes a unprecedented but lethal

sickness known as melioidosis, the U.S. Centers for Disease Control and Prevention (CDC) said.

- About Melioidosis Melioidosis, also known as Whitmore's disorder, is an infectious disease that can infect humans or animals.
- The ailment is as a result of the bacterium *Burkholderia pseudomallei*.
- It is predominately a ailment of tropical climates, particularly in Southeast Asia and northern Australia wherein it is huge.
- The bacteria causing melioidosis are found in contaminated water and soil.
- It is spread to humans and animals thru direct touch with the contaminated source.
- Most humans infected with *B. Pseudomallei* enjoy no symptoms, but folks that do experience symptoms have signs and symptoms and signs and symptoms that range from mild, along with fever, pores and skin modifications, pneumonia, and abscesses, to excessive with inflammation of the brain, irritation of the joints, and dangerously low blood strain that reasons dying.
- About 10% of people with melioidosis develop symptoms that last longer than two months, termed "chronic melioidosis".
- Person-to-man or woman or animal-to-human transmission is extraordinarily uncommon.
- No vaccine for melioidosis has been approved.

## Topic 9. BARAK VALLEY

*Importance for Prelims: Geography*



Call to separate Barak Valley from Assam grows louder

- Barak Valley is comprised of three districts namely Cachar, Hailakandi and Karimganj and is majorly Bengali-dominated.
- The Barak Valley is located in the southern region of the Indian state of Assam.
- The main city of the valley is Silchar. The vicinity is known as after the Barak river.
- Barail is the only wildlife sanctuary of the Barak valley region.

- The Asian elephant has already vanished from most of the valley.
- There had been non-stop call for in Bengali dominated Barak valley for separate statehood and for it being carved out from the Assamese-majority Brahmaputra valley publish NRC.
- Barak valley is the maximum neglected a part of Assam in phrases of its infrastructure development, tourism area, educational institutions, hospitals, IT industries, etc which is still lagging behind in assessment to the Assam's mainland Brahmaputra valley that have get entry to to all of these centers mentioned above.

## Topic 10. PRAKRITIKHETIKHUSHHALYOJANA (PK3Y)

*Importance for Prelims: Agriculture*



Himachal's women farmers expand their horizons, without hurting nature

- PrakritikKhetiKhushhalYojana (PK3Y) is promoting the climate resilient SubhashPalekar Natural Farming (SPNF), also called 'Zero Budget Natural Farming.
- The scheme intends to offer subsidy with the financial assistance of Rs.

50,000 to encourage farmers for herbal farming.

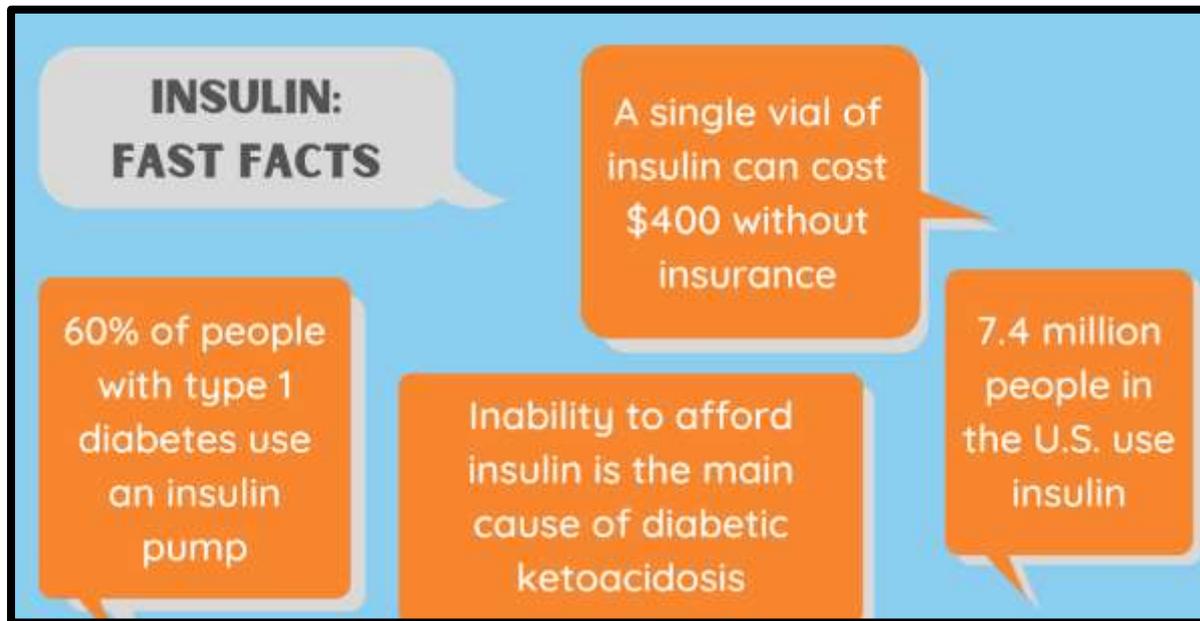
- The scheme will cover the activities being carried out through the department for the promoting of natural farming, RashtriyaKrishiVikasYojana (PKVY), PramparagatKrishiVikasYojana (PKVY) or another scheme had been related to natural farming are being implemented.
- The Department of Agriculture would act the nodal agency for implementing PrakritikKhetiKhushhalKissanYojana under zero budget natural farming system.
- The State Level Committee under the Directorate of Agriculture is responsible for planning, enforcing, and tracking the zero price range natural farming.
- Zero Budget Natural Farming Zero budget natural farming is a method of chemical-free agriculture drawing from traditional Indian practices.
- It was at the start promoted by using agriculturist SubhashPalekar, who advanced it inside the mid-Nineteen Nineties as an opportunity to the Green Revolution's techniques which can be pushed with the aid of chemical fertilizers and pesticides and intensive irrigation.
- It is a unique model that relies on Agro-ecology.
- It aims to bring down the cost of production to nearly zero and return to a pre-green revolution style of farming.
- It claims that there is no need for expensive inputs such as fertilisers, pesticides and intensive irrigation. ZBNF is based on 4 pillars:
- **Jeevamrutha:** It is a mixture of fresh cow dung and aged cow urine (both from India's indigenous cow breed), jaggery, pulse flour, water and soil; to be applied on farmland.
- **Bijamrita:** It is a concoction of neem leaves & pulp, tobacco and inexperienced chilies organized for insect and pest management, that can

be used to deal with seeds. **Acchadana (Mulching):** It protects topsoil during cultivation and does not destroy it by tilling.

- **Whapasa:** It is the situation where there are both air molecules and water molecules present in the soil. Thereby helping in reducing irrigation requirement. It has been pioneered by Shri. Subhash Palekar. The ZBNF farm model is based on polycropping. The expenditure on the main crop is recovered from the income from the short duration inter crops, hence the net expenditure on the main crop is 'zero'.

## Topic 11. INSULIN

*Importance for Prelims: Science and Tech*



New light on how insulin signalling affects tissue health

- Insulin is a hormone secreted by the b cells of the pancreas.
- It is commonly associated with an ability to regulate glucose metabolism.
- However, later research (from around 1949 until currently) have shown it plays a larger role and helps in growth and upkeep of tissues.
- Despite years of look at, essential details as to how differential amounts of insulin impact cells are unknown.
- An crucial mechanism within the cellular is insulin signalling, which is a series of biochemical reactions that carry information approximately availability of insulin and the need to regulate the glucose within the blood.
- There are two most important pathways for insulin signalling, named AKT and ERK, which collectively balance metabolism and increase.
- These specifically control storage of glucose in the liver and also

stimulate glucose transport in skeletal muscle and fat.

- Abnormalities in insulin signalling thus impact health and survival itself of organisms.
- In News –In a study that examined the effect of insulin on liver cells taken from mice, researchers have uncovered how insulin amounts shape the flow of information through the signalling network.
- The look at also gives insights into the diploma to which predominant and minor additives are essential in preserving this signalling procedure intact.
- This knowledge can direct further studies to identify targets for therapy.

## **Topic 12. AYUSHMAN BHARAT HEALTH INFRASTRUCTURE**

### **MISSION**

*Importance for Prelims: Governance*

# PM AYUSHMAN BHARAT HEALTH INFRASTRUCTURE MISSION

**Largest Ever Scheme to Scale-up Health Infrastructure**



## Prime Minister Narendra Modi

has ensured a transformation in healthcare in the past seven years

**Ayushman Bharat PMJAY & Ayushman Bharat Health & Wellness Centers** brought scale while **Ayushman Bharat – Digital Mission** brings technology to healthcare

“Every Indian deserves accessible, affordable and high-quality healthcare. We have worked to ensure this through multi-dimensional interventions.”  
- Prime Minister Narendra Modi



**Rs 64,000 crore**  
to be invested in building healthcare infrastructure

## PM AYUSHMAN BHARAT HEALTH INFRASTRUCTURE MISSION

### Multi-dimensional and Multi-modal Interventions

- Focus on critical and primary care
- Network of 29,000 Health and Wellness Centers
- Specialized Critical Care Hospital Blocks in all districts with 37,000 beds with ICUs, ventilators and oxygen support
- Over 4,000 Block & District level Public Health Units & Labs
- Full range of diagnostic services in all districts
- IT-enabled disease surveillance system

### Institutional Approach to Holistic Healthcare

- National Institution for One Health
- 4 New National Institutes for Virology
- Regional Research Platform for WHO South East Asia Region
- 15 Biosafety Level 3 Labs
- 5 New Regional National Centre for Disease Control
- Public health units at 50 international entry points preventing public health emergencies and disease outbreaks

**A HEALTHY FUTURE BECKONS!**



Ministry of Health and Family Welfare



Know about PM Modi's transformative vision for healthcare in his own words by scanning this QR code

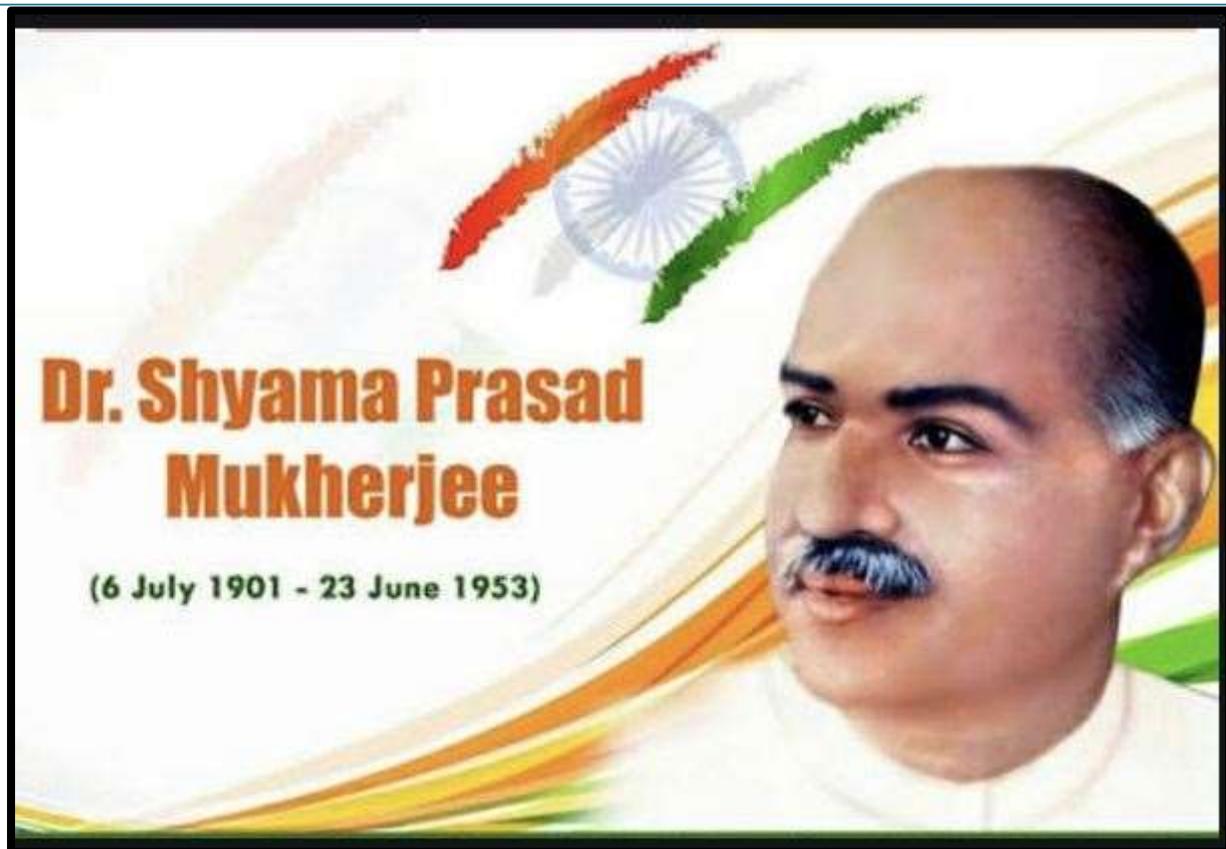
14-11/2021 11:54:21

- The Ayushman Bharat Health Infrastructure Mission is aimed at ensuring a robust public health infrastructure in both urban and rural areas, capable of responding to public health emergencies or disease outbreak.
- In a bid to growth accessibility, the Ayushman Bharat Health Infrastructure Mission, an addition to the National Health Mission, will offer guide to 17,788 rural Health and Wellness Centres in 10 ‘high focus’ states and establish 11,024 urban Health and Wellness Centres across the country.
- The challenge’s objective is to “fill critical gaps in public fitness infrastructure, specifically in essential care facilities and primary care in both the city and rural regions.”
- It will make certain get entry to to critical care services in all districts of the united states with over five lakh populace through ‘Exclusive Critical Care Hospital Blocks’.
- The remaining districts will be covered through referral services. Integrated public health labs can also be installation in all districts, giving human beings get right of entry to to “a full range of diagnostic services” thru a network of laboratories across the usa.
- The Ayushman Bharat Health Infrastructure Mission also objectives to set up an IT-enabled ailment surveillance system thru a community of surveillance laboratories at block, district, nearby and national stages.
- All the public fitness labs will be connected through the Integrated Health Information Portal, in order to be improved to all states and UTs. In mild of the coronavirus pandemic, the assignment aims at ensuring a robust device for “detecting, investigating, stopping, and preventing public fitness emergencies and sickness outbreaks”. For this, 17 new public health units will be set up, while the 33 existing public health units will be strengthened.

- It will even teach frontline and healthcare people to reply to public health emergencies efficiently.
- Apart from this, the assignment will set up other infrastructure, consisting of a country wide group for one health, 4 countrywide institutes for virology, a nearby research platform for WHO's SouthEast Asia region, nine biosafety level-III laboratories, and five regional centres for disease control.
- Ayushman Bharat Digital Mission (ABDM) A flagship virtual initiative regarding the advent of now not just a unique health ID for every citizen, but also a virtual healthcare professionals and facilities registry.

### **Topic 13. SYAMA PRASAD MUKHERJEE**

*Importance for Prelims: History*



J&K now free of strong arm tactics by three families: Shah

- Syama Prasad Mukherjee was an Indian flesh presser, barrister and academician, who served because the Minister for Industry and Supply in Prime Minister Jawaharlal Nehru's cabinet.
- After falling out with Nehru, protesting against the Liaquat-Nehru Pact, Mukherjee resigned from Nehru's cabinet.
- With the assist of the RashtriyaSwayamsevakSangh, he founded the Bharatiya Jana Sangh, the predecessor to the Bharatiya Janata Party, in 1951.
- He was also the president of AkhilBharatiya Hindu Mahasabha from 1943 to 1946.
- Since the Bharatiya Janata Party is the successor to the Bharatiya Jana Sangh, Mukherjee is also regarded as the founder of the Bharatiya Janata Party.

**Topic 14. INFORMATION FUSION CENTRE FOR INDIAN OCEAN REGION**

***Importance for Prelims: IR***

## In real time

The Navy's Information Fusion Centre-Indian Ocean Region (IFC-IOR) in Gurugram is the single-point centre linking all coastal radar chain networks along the 7,500-km Indian coastline and in some neighbouring countries

■ The IFC tracks and monitors 75,000 - 1.5 lakh shipping vessels in real time round-the-clock



■ The IFC actively interacts with the maritime community and has already built linkages with 18 countries and 15 multinational and maritime security centres

■ The major centres with which regular exchange of maritime security information is being undertaken include Virtual Regional Maritime Traffic Centre, Maritime Security Centre- Horn of Africa, Regional Cooperation Agreement on Combating Piracy and Armed Robbery, Information Fusion Centre-Singapore, and International Maritime Bureau-Piracy Reporting Centre

### Netherlands keen on Naval Liaison Officer

- The IFC-IOR was set up in 2018 to coordinate with regional countries on maritime issues and act as a regional repository of maritime data.
- It currently has linkages with 21 companion countries and 22 multinational organizations across the globe.
- The IFC has been set up at Gurugram, India and is collocated with Information Management and Analysis Centre which is together administered via the Indian Navy and Indian Coast Guard.
- IFC-IOR is established with the vision of strengthening maritime safety inside the area and beyond, via constructing a commonplace coherent

maritime situation photo and appearing as a maritime records hub for the region.

- **Roles and functions of a liaison officer:** The liaison officer can be based complete-time on the centre, running immediately with the Indian defense force and fellow liaison officials from associate nations to enhance maritime domain cognizance in the vicinity.

## **Topic 15. INDIA'S DRAFT ON REDD+ SAFEGUARDS**

### ***Importance for Prelims: Environment***

India's draft on REDD+ safeguards needs a relook

- India has released a draft document on Safeguards Information System to reduce potential risks from the implementation of activities under the

UN's Reducing Emissions from Deforestation and Degradation program (REDD+), a key climate change mitigation tool.

- The draft document is in compliance with India's commitment to United Nations Framework Convention on Climate Change.
- Experts note the safeguard relies on forest and land use rules, legislation and guidelines that don't have an amazing tune report of making sure environmental justice and addressing biodiversity loss.
- A more robust framework to evaluate compliance is needed.
- The REDD+ framework created by the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP), is geared towards the sustainable management of forests and the Conservation and enhancement of woodland carbon shares in growing international locations.
- The seven safeguards (called Cancun safeguards) articulated as in keeping with the Cancun Agreements at Cancun, Mexico, at the 2010 United Nations Climate Change Conference, want to be addressed and respected the implementation of REDD+ activities to prevent any negative impacts of REDD+ actions on natural forests, biological diversity and local communities.
- As in line with the agreements, developing united states Parties to the UNFCCC which includes India, are required to create a Safeguards Information System (SIS) to record on compliance to the safeguards while implementing REDD+ activities.
- The National REDD+ Strategy of India endorses the adherence to Cancun safeguards during the implementation of REDD+ activities, states the draft document.
- The Strategy additionally ties in with India's Nationally Determined Contribution to create an additional carbon sink of 2.5 to a few billion

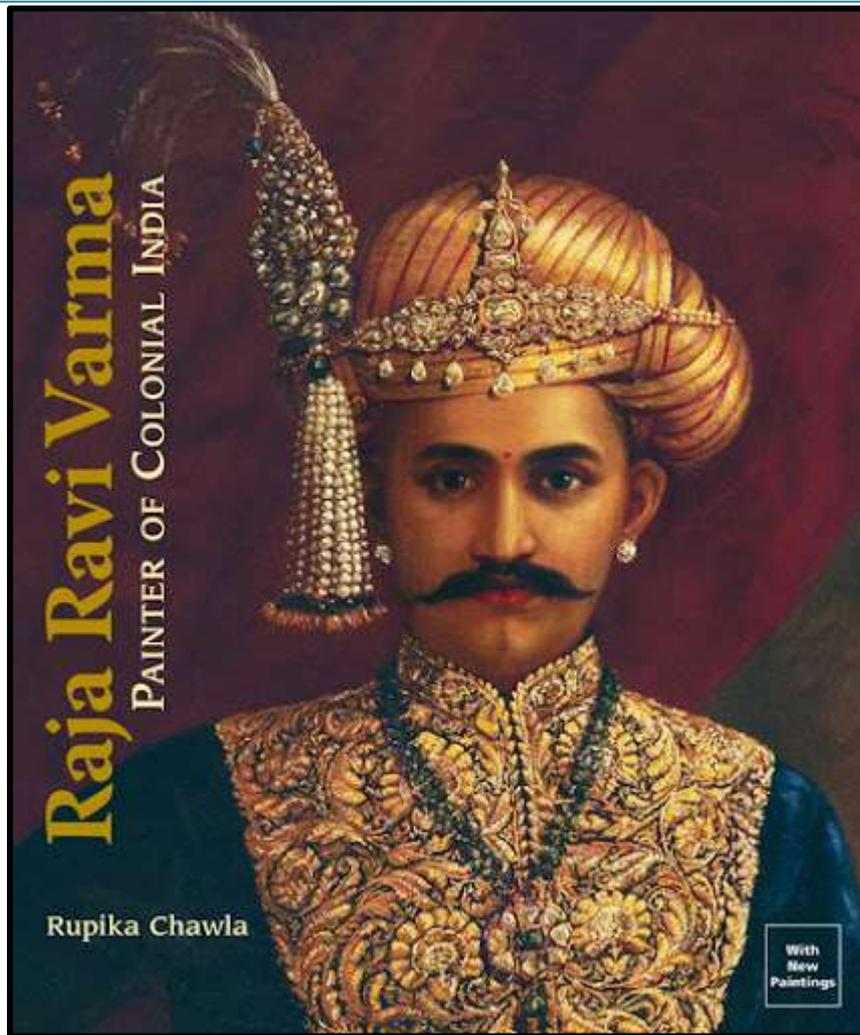
tonnes of CO<sub>2</sub> equivalent via additional wooded area and tree cover by 2030.

### What is REDD+?

- Reducing Emissions from Deforestation and forest Degradation (REDD+) is a mechanism developed by Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2005.
- Most of the key REDD+ decisions were completed by 2013, with the final pieces of the rulebook finished in 2015.
- The “Plus” in REDD+, lays out the various ways in which countries have defined the three activities: conservation, the sustainable management of forests and enhancement of forest carbon stock.
- It pursues to achieve climate alternate mitigation by using incentivizing woodland conservation.
- It has three phases — Readiness, Implementation and Result-based actions. Readiness phase involves the development of national strategies or action plans, REDD+ mitigation actions, and capacity building. Implementation is about enacting REDD+ actions and national strategies that could involve further capacity building, technology development and transfer.
- Results-based payments comprise the final REDD+ phase.
- It affords financial incentives to growing countries that prove they stopped deforestation during a positive time frame.
- This is done through rigorous UN-backed technical evaluations
- The Green Climate Fund (GCF) established at Conference Of Parties (COP)-17 to function as the financial mechanism for the UNFCCC, is currently financing REDD+ programs.
- Brazil was the primary U.S. To get hold of \$ninety six.5 million underneath the resultsbased bills.

**Topic 16. RAJA RAVI VARMA**

*Importance for Prelims: History*



Book release “ FALSE ALLIES: India’s Maharajhs in the Age of Ravi Varma”

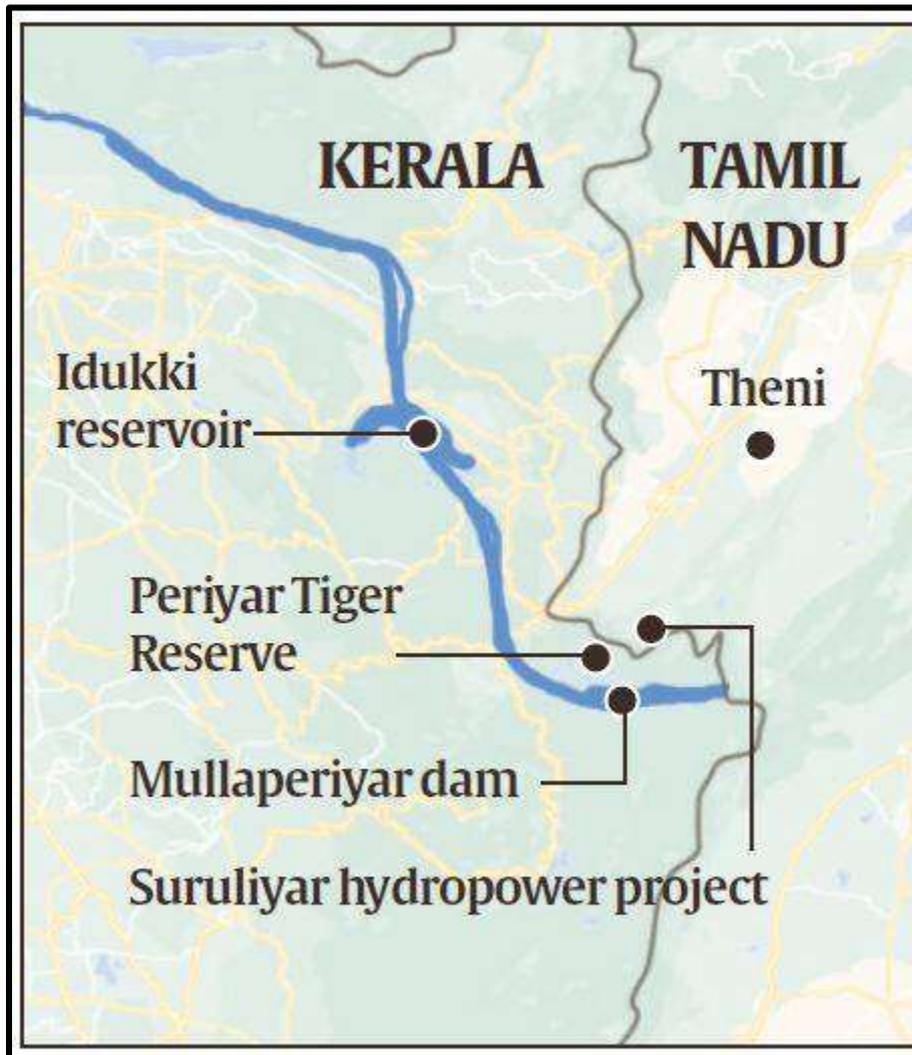
- Raja Ravi Varma was an Indian painter and artist.
- He is considered among the greatest painters in the history of Indian art. His works are one of the best examples of the fusion of European academic art with a purely Indian sensibility and iconography.
- Additionally, he turned into brilliant for making lower priced lithographs of his paintings available to the public, which substantially superior his reach and have an impact on as a painter and public parent.
- Furthermore, his spiritual depictions of Hindu deities and works from Indian epic poetry and Puranas have obtained profound acclaim.
- Varma worked on both portrait and landscape paintings, and is

considered among the first Indian artists to use oil paints.

- He was part of the royal family of Travancore.
- At the age of 14, Varma was patronised by AyilyamThirunal, the then ruler of Travancore, and went on to receive training in watercolours from Ramaswamy Naidu, the royal painter.
- Famous works: Damayanti Talking to a Swan, Shakuntala Looking for Dushyanta, Nair Lady Adorning Her Hair, and Shantanu and Matsyagandha.

## **Topic 17. MULLAPERIYAR DAM**

*Importance for Prelims: Geography*



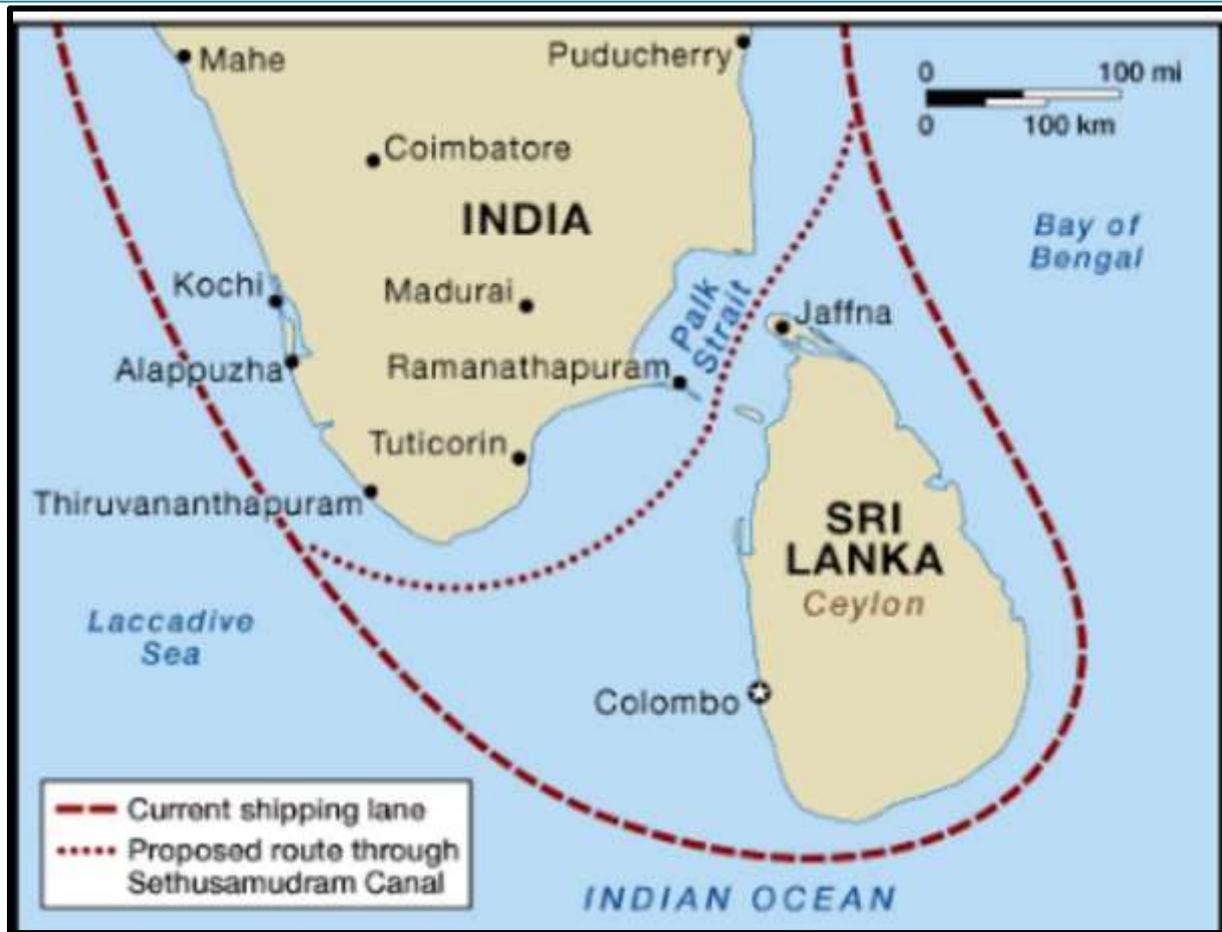
SC tells panel to fix maximum water level at Mullaperiyar dam

- Mullaperiyar Dam is a masonry gravity dam on the Periyar River in the Indian state of Kerala.
- It is located 881 m (2,890 ft) above mean sea level, on the Cardamom Hills of the Western Ghats in Thekkady, Idukki District of Kerala, India.
- It was constructed between 1887 and 1895 by John Pennycuick and also reached in an agreement to divert water eastwards to the Madras Presidency area (presentday Tamil Nadu).
- The Periyar National Park in Thekkady is placed around the dam's reservoir.

- The dam is built at the confluence of Mullayar and Periyar rivers.
- The dam is located in Kerala on the river Periyar, but is operated and maintained by the neighbouring state of Tamil Nadu.
- According to a 999-year lease agreement made during the British rule the operational rights were handed over to Tamil Nadu.
- Although the Periyar River has a total catchment area of 5398 km<sup>2</sup> with 114 km<sup>2</sup> downstream from the dam in Tamil Nadu, the catchment area of the Mullaperiyar Dam itself lies absolutely in Kerala and as a consequence now not an inter-State river.
- The dam redirected the river to flow towards the Bay of Bengal, instead of the Arabian Sea and provide water to the arid rain area of Madurai in Madras Presidency, the shadow regions of the Tamil Nadu.

## **Topic 18. PALK STRAIT MAPPING**

***Importance for Prelims: Geography***



### A festering crisis in the Palk Strait

- The Palk Strait is a strait between the Tamil Nadu state of India and the Jaffna District of the Northern Province of the island nation of Sri Lanka.
- It connects the Bay of Bengal within the northeast with Palk Bay inside the southwest.
- Several rivers flow into it, including the Vaigai River of Tamil Nadu.
- The strait is called after Robert Palk, who turned into a governor of Madras (1755–1763) at some stage in the Company Raj length.
- The unique feature around Palk Strait is that the waves around it, to its north and south are of high contrast.
- To the north, the waves of Bay of Bengal are generally swells waves at the same time as that on the south, in Palk Bay, are ordinarily sea waves. Despite being a sea ruled region, the substantial wave heights in Palk Bay

areas are noticeably low.

- Palk Bay is studded at its southern end with a sequence of low islands and reef shoals which are collectively known as Adam's Bridge, it has historically been known in Hindu Mythology as "Ram Setu", this is, the bridge of Rama.
- This chain extends between Dhanushkodi on Pamban Island (also called Rameswaram Island) in Tamil Nadu and Mannar Island in Sri Lanka.
- The island of Rameswaram is connected to the Indian mainland by way of the Pamban Bridge.

## **Topic 19. CRITICAL WILDLIFE HABITATS**

### ***Importance for Prelims: Environment***

When conservation efforts collide with tribal rights in Maharashtra

- A Public Interest Litigation in the Bombay High Court, originally filed in 2013, has gathered momentum over the issue of critical wildlife habitat in the past couple of years.
- As the High Court enquired about government action, the state forest department declared 54 sites as critical wildlife habitats, in an effort to protect endangered wildlife.
- However, activists and lecturers allege that there was undue haste and several violations on this implementation.
- Local groups say that their claims underneath the Forest Rights Act are but to be settled and this move of affirming the sites as important natural world habitats under the same act will come in the way of fair and just treatment to the tribals.
- About Critical Wildlife Habitats – CWLHs are meant to be areas of national parks and wildlife sanctuaries that are required to be kept as inviolate for the purpose of wildlife conservation (not just tigers).
- CWLH mandatorily requires agreement of woodland rights below FRA.
- The two processes are, thus, independent of each other where the settlement of forest rights comes at different stages.
- As envisaged inside the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, Critical Wildlife Habitats are to be declared via the Central Government within the Ministry of Environment and Forests after a process of consultation by using Expert Committees.
- History of Critical Wildlife Habitat Guidelines
- In order to inform a CWH, the Act requires kingdom governments to set up that the presence of right-holders is causing irreversible damage to wildlife and their habitats, and that co-lifestyles among rights holders and wildlife turned into not an affordable option.

- In 2007 and 2011, two versions of the guidelines for notifying CWHs were drafted by the MoEF&CC (then MoEF), but withdrawn amidst lack of consensus between foresters and forest rights groups.
  - The result was that after more than a decade of FRA's existence, not a single CWH had been notified, creating uproar from wildlife conservation groups.
  - In March 2017, the National Tiger Conservation Authority (NTCA) issued an order to deny forest rights in critical tiger habitats (core areas of tiger reserves) in the absence of CWH guidelines.
  - MoEF&CC finally issued CWH guidelines in 2018
- Notifying CWHs:  
Key features of guidelines**
- The Chief Wildlife Warden of a state will notify an Expert Committee for the cause of identification of crucial flora and fauna habitats (CWH) in a national park or sanctuary.
  - The Expert Committee will pick out regions within country-wide parks and sanctuaries, based totally on scientific and goal criteria applicable to the covered place, required to be stored inviolated for the motive of natural world conservation.
  - The Expert Committee shall issue a public note at the aim to inform CWH.
  - The public observe shall consist of details of regions required to be saved inviolate, criteria followed for CWH identity, the implication of the notification on current rights, and all alternatives of resettlement and rehabilitation schemes, if applicable.
  - The Expert Committee shall carry out open consultations with all stakeholders, and the proceedings of the consultations, especially the objections, will be documented appropriately.
  - The committee will submit the CWH proposal to the Chief Wildlife

Warden.

- The decision on the proposal will take by the Standing Committee of the National Board for Wildlife.
- A MoTA representative would be invited during the deliberation of the proposal by the standing committee.
- Following the committee's advice, the notification of CWH will be posted inside the respectable gazette.
- Critical Tiger Habitats Critical 'tiger' habitats (CTHs), additionally referred to as center regions of tiger reserves—are recognized underneath the Wild Life Protection Act (WLPA), 1972 based totally on clinical evidence that “such areas are required to be stored as inviolate for the purpose of tiger conservation, without affecting the rights of the Scheduled Tribes or such different wooded area dwellers”.
- The notification of CTH is done by the state government in consultation with the expert committee constituted for the purpose.
- 'Inviolat' is a preferred time period used to suggest no human agreement and usage.
- This necessarily implies that organizing CTHs as inviolate areas calls for relocation of people living in such regions.

## **Topic 20. CERT-IN AUTHORIZED AS CVE NUMBERING AUTHORITY (CNA)**

***Importance for Prelims: Science and Tech***

CERT-In authorized as CVE Numbering Authority (CNA) for vulnerabilities

impacting all products designed, developed and manufactured in India.

- Indian Computer Emergency Response Team (CERT-In) has been legal by the CVE Program, as a CVE Numbering Authority (CNA) for vulnerabilities impacting all products designed, evolved and synthetic in India.
- CVE is an international, community-based effort and relies on the community to discover vulnerabilities.
- The vulnerabilities are discovered then assigned and published to the CVE List.
- Information technology and cybersecurity experts use CVE Records to make certain they are discussing the same trouble, and to coordinate their efforts to prioritize and cope with the vulnerabilities.
- The project of the CVE Program is to become aware of, outline, and catalog publicly disclosed cybersecurity vulnerabilities.
- It is an international, community-based effort and relies on the community to discover vulnerabilities.
- The vulnerabilities are determined then assigned and posted by using businesses from around the arena that have partnered with the CVE Program.
- Partners publish CVE Records to communicate consistent descriptions of vulnerabilities.
- CNAs are groups answerable for the regular project of CVE IDs to vulnerabilities, and for developing and publishing statistics approximately the Vulnerability within the related CVE Record.
- The CVE List is built by CVE Numbering Authorities (CNAs). Every CVE Record brought to the list is assigned via a CNA.
- The CVE Records published in the catalog enable program stakeholders to rapidly discover and correlate vulnerability information used to protect

systems against attacks.

- Each CNA has a specific Scope of responsibility for vulnerability identification and publishing.

## **Topic 21. DECLARATION ON THE CONDUCT OF PARTIES IN THE SOUTH CHINA SEA**

***Importance for Prelims: IR***

Expedite talks on South China Sea: Beijing

- In 2002, ASEAN and China signed the Declaration on the Conduct of

Parties in the South China Sea.

- The Year 2022 is the twentieth anniversary of the signing of the Declaration on the Conduct of Parties within the South China Sea (DOC).
- The Parties reaffirm their dedication to the purposes and concepts of the Charter of the United Nations, the 1982 UN Convention on the Law of the Sea, the Treaty of Amity and Cooperation in Southeast Asia, the Five Principles of Peaceful Coexistence, and other universally diagnosed standards of international law which shall function the simple norms governing kingdom-to-nation members of the family.
- South China Sea Code of Conduct The COC is an upgraded version of the Declaration on the Conduct of Parties in the South China Sea (DOC).
- A code of conduct in the South China Sea is a set of guidelines outlining the norms and duties for ensuring peace and stability within the location.
- It courses right practice for an man or woman, birthday party or organization, and goals to create an powerful mechanism in safeguarding safety and freedom of navigation.

## **Topic 22. NATIONAL POPULATION REGISTER**

### ***Importance for Prelims: Polity***

Updated NPR form appears to retain contentious questions

- National Population Register It is a list of “usual residents of the country”.

- A “regular resident of the u .S .” is one that has been dwelling in a nearby region for as a minimum the final six months, or intends to live in a particular location for the next six months.
- **Legal Provisions:** The NPR is being prepared under provisions of the Citizenship Act 1955 and the Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003.
- It is mandatory for every “usual resident of India” to register in the NPR.
- **Background:** The data for the NPR was first collected in 2010 along with the house listing phase of Census 2011.
- In 2015, this records was in addition updated with the aid of accomplishing a door-to-door survey.
- However, with the usage of Aadhaar as the important thing automobile for the transfer of presidency benefits within the last few years, the NPR has taken a backseat.
- **Scope:** The NPR exercise is conducted at the local, sub-district, district, state and national levels.
- The NPR will collect both demographic data and biometric data. Biometric data will be updated through Aadhar details.
- In the 2010 exercise, the RGI had collected only demographic details.
- In 2015, it updated the data further with the mobile, Aadhaar and ration card numbers of residents.
- For the 2020 exercise, it has dropped the ration card number but added other categories.
- **NPR and the NRC:** Unlike the NRC, the NPR is not a citizenship enumeration drive, as it would record even a foreigner staying in a locality for more than six months.
- With the government insisting that the NRC could be applied throughout the us of a, the NPR has raised anxieties across the concept of citizenship

within the usa.

- All this is happening in the backdrop of the NRC in Assam which has excluded 19 lakh among the 3.3 crore who had applied.
- NRC country wide might simplest occur on the premise of the imminent NPR.
- After a list of residents is created (i.e. NPR), a national NRC may want to go about verifying the citizens from that list.

### **Topic 23. ASIAN INFRASTRUCTURE INVESTMENT BANK (AIIB)**

***Importance for Prelims: IR***



India needs to bolster its health infrastructure: AIIB

- The Asian Infrastructure Investment Bank (AIIB) is a multilateral development financial institution with a mission to enhance social and financial outcomes in Asia.
- Headquartered in Beijing, it began operations in January 2016 and have now grown to 102 approved members worldwide.
- It invests in sustainable infrastructure and other productive sectors in Asia and beyond. Membership in AIIB will be open to participants of the International Bank for Reconstruction and Development or the Asian Development Bank.
- China is the most important contributor to the Bank, contributing USD 50 billion, half of the initial subscribed capital.
- India is the second-largest shareholder, contributing USD eight.Four billion.
- Fourteen of the G-20 countries are AIIB members which includes France, Germany, Italy and the UK.

## **Topic 24. MICRONUTIENT DEFICIENCY**

*Importance for Prelims: Governance*

## What is Micronutrient Deficiencies?

- Micronutrient deficiency (MND) is a **lack of essential vitamins and minerals** required in small amounts by the body for proper growth and development
- The five common micronutrient deficiency includes:
  - vitamin A
  - Iodine
  - Iron
  - Zinc
  - Folate



Fortifying rice by adding micronutrients is a quick and cost-efficient way to address malnutrition

- In an formidable try and combat the serious problem of anaemia because of malnutrition, Prime Minister Narendra Modi made an announcement to mandate rice fortification in all social safetynet schemes by 2024.
- Rice fortification, a technique of adding micronutrients like iron, folic acid and vitamin B12, is an powerful, preventive and value-green complementary method to deal with the nutrition trouble within ashort period.
- Anaemia – India has made impressive progress in reducing stunting and anaemia among children over the last decade.
- However, anaemia still influences a couple of in two children and ladies.
- The WHO has declared anaemia among women and children as a

“severe” public health problem, demanding immediate attention.

- Further, recent statistics indicate rise in anaemia levels amongst women and children in 16 and 18 of 22 States/UTs respectively (NFHS-5).
- Iron deficiency-anaemia is the biggest cause of disability for the past 10 years and contributed 20 per cent direct and 50 per cent associated maternal deaths in India.
- Its economic burden is equivalent to about 4 per cent of GDP.
- Apart from iron, deficiency in micronutrient like diet B12, nutrition A, folate and zinc also make a contribution to growing anaemia degrees.
- Reasons– The available national level consumption data National Nutrition Monitoring Board (1979; 1991; 2002; 2012) indicate low levels of iron and micronutrient deficiencies amongst the Indian population. “What India Eats”, a recent report via ICMR-National Institute of Nutrition, suggests low intake of nutritious food like end result, veggies, milk, pulses, meat, poultry, and so on.
- FAO lately attributed the affordability of cost-in-depth healthy diets as a constraint in attaining the nutrients-associated Sustainable Development Goals globally.
- At \$1/person per day, India’s spending on diet is significantly lower than the EAT Lancet dietary recommendations of \$3-5.
- Analysis by means of IFPRI also finds that almost two-thirds of the rural negative can't manage to pay for a nutritious food regimen that meets India’s country-wide meals-based totally nutritional pointers.
- On the other hand, rice, a staple cereal, is fed on by way of 65 in step with cent of the population at the fee of 6.8 kg in keeping with capita per month.
- Fortifying rice with micronutrients as a consequence is an excellent

vehicle and gives an immediate opportunity to bridge nutritional nutrient gaps and enhance fitness outcomes.

- **Indian Efforts** – The Prime Minister’s announcement of universalization of rice fortification by 2024, will cover about 100 crore target population, including about 20 crore women of reproductive age.
- FSSAI is working on FRK standardisation and enabling setting up more NABL accredited labs and Bureau of Indian Standards Standardisation of Extruders/Blenders, to ensure quality.
- FCI and the Ministries of Women and Child Development and Education are working in convergence to ensure distribution of 13.70 lakh tonnes of fortified rice in ICDS and MDM.
- It has been promoting millets on a venture mode to obtain dietary protection and has blanketed millets underneath NFSA to be dispensed in the social protection net schemes.
- The Prime Minister recently launched 35 crop sorts with higher nutrient content to fight malnutrition.
- Under POSHAN 2.Zero, MoWCD has entreated all Aspirational Districts to set up poshanvatika or nutrigarden to promote regionally grown nutritious meals.
- **Note** – Historically, India has tested the idea of fortification by mandating iodised salt in 1962.
- Interestingly, CNNS Report 2016-18, subtly hinted the achievement of established fortification of salt through revealing iodine to be the handiest exception to micronutrient deficiencies in the examined pattern.
- To recognize more about Rice Fortification, please refer to August 2021 DPN.
- Copenhagen Consensus Copenhagen Consensus is a project that seeks to establish priorities for advancing international welfare using

methodologies primarily based at the concept of welfare economics, using cost–gain analysis.

- It turned into conceived and organized around 2004 by means of BjørnLomborg,the author of The Skeptical Environmentalist and the then director of the Danish government’s Environmental Assessment Institute.
- The project is run by the Copenhagen Consensus Center, which is directed by Lomborg and was part of the Copenhagen Business School, but it is now an independent non-profit organisation registered in the USA.
- The undertaking considers feasible solutions to an extensive range of troubles, provided with the aid of professionals in every area.

## **Topic 25. NATIONAL BANK FOR FINANCING INFRASTRUCTURE DEVELOPMENT (NABFID)**

*Importance for Prelims: Economy*

## FUNDING INFRASTRUCTURE

<p><b>Proposed framework</b> to allow private DFIs; RBI to issue licences</p> <hr/> <p><b>NEED FOR DFI</b></p> <p>National Infrastructure Pipeline: <b>7,000 projects</b></p> <p>Total funding requirement till 2025: <b>₹111 lakh cr</b></p>		<p><b>PROPOSED STRUCTURE</b></p> <table border="1"> <tr> <td><b>NaBFID</b> to be headquartered in Mumbai</td> <td><b>Centre to</b> hold at least 26% equity at all times</td> <td><b>It can</b> set up subsidiaries or JVs or branches in India or overseas</td> </tr> <tr> <td><b>Chairperson,</b> to be appointed by Centre in consultation with RBI</td> <td><b>Salaries,</b> allowances guided by market standards</td> <td><b>Set up</b> trusts under the Indian Trusts Act, 1882 for establishment of funds</td> </tr> </table>	<b>NaBFID</b> to be headquartered in Mumbai	<b>Centre to</b> hold at least 26% equity at all times	<b>It can</b> set up subsidiaries or JVs or branches in India or overseas	<b>Chairperson,</b> to be appointed by Centre in consultation with RBI	<b>Salaries,</b> allowances guided by market standards	<b>Set up</b> trusts under the Indian Trusts Act, 1882 for establishment of funds
<b>NaBFID</b> to be headquartered in Mumbai	<b>Centre to</b> hold at least 26% equity at all times	<b>It can</b> set up subsidiaries or JVs or branches in India or overseas						
<b>Chairperson,</b> to be appointed by Centre in consultation with RBI	<b>Salaries,</b> allowances guided by market standards	<b>Set up</b> trusts under the Indian Trusts Act, 1882 for establishment of funds						
<p><b>SHIELDING DECISIONS</b></p> <table border="1"> <tr> <td><b>Full protection</b> for decisions in good faith</td> <td><b>Indemnity provided</b> for decisions by key personnel</td> </tr> <tr> <td><b>No investigation</b> by any agency sans prior govt nod</td> <td><b>Performance review</b> every 5 yrs by an external agency</td> </tr> </table>			<b>Full protection</b> for decisions in good faith	<b>Indemnity provided</b> for decisions by key personnel	<b>No investigation</b> by any agency sans prior govt nod	<b>Performance review</b> every 5 yrs by an external agency		
<b>Full protection</b> for decisions in good faith	<b>Indemnity provided</b> for decisions by key personnel							
<b>No investigation</b> by any agency sans prior govt nod	<b>Performance review</b> every 5 yrs by an external agency							
<p><b>FINANCIAL BACKING</b></p> <table border="1"> <tr> <td><b>Govt may</b> guarantee its bonds, debentures or loans on request</td> <td><b>Concessional</b> rate of fees, not exceeding 0.1% for govt guarantee</td> <td><b>Hedging cost</b> for foreign borrowings to be reimbursed fully or partially</td> </tr> <tr> <td><b>Govt to provide</b> 10-year tax holiday to the public sector DFI; 5yr to private ones</td> <td colspan="2"><b>Borrow money</b> from RBI repayable on demand or on expiry of fixed periods</td> </tr> </table>			<b>Govt may</b> guarantee its bonds, debentures or loans on request	<b>Concessional</b> rate of fees, not exceeding 0.1% for govt guarantee	<b>Hedging cost</b> for foreign borrowings to be reimbursed fully or partially	<b>Govt to provide</b> 10-year tax holiday to the public sector DFI; 5yr to private ones	<b>Borrow money</b> from RBI repayable on demand or on expiry of fixed periods	
<b>Govt may</b> guarantee its bonds, debentures or loans on request	<b>Concessional</b> rate of fees, not exceeding 0.1% for govt guarantee	<b>Hedging cost</b> for foreign borrowings to be reimbursed fully or partially						
<b>Govt to provide</b> 10-year tax holiday to the public sector DFI; 5yr to private ones	<b>Borrow money</b> from RBI repayable on demand or on expiry of fixed periods							

**KV Kamath to head NABFID**

- It is a newly set up development finance institution in the country. The board will incorporate thirteen contributors, together with a chairman, 4 complete-time administrators and two government nominees.
- The remaining are anticipated to be unbiased directors.
- Parliament had, in March this year, passed a Bill to set up NABFID to fund infrastructure projects in the country.
- The financial institution has been set up to guide the development of long-time period, non-recourse infrastructure financing in India, inclusive of the development of the bonds and derivatives markets important for infrastructure financing and to hold on the business of financing infrastructure.

**Topic 26. MEGHALAYA’S MATRILINEAL INHERITANCE CUSTOM**

*Importance for Prelims: Polity*

Meghalaya: District council to introduce Bill changing age-old Khasi matrilineal inheritance custom

- A district self sufficient council in Meghalaya is attempting to alter a customary exercise of inheritance of the Khasi tribe in which the youngest daughter of the circle of relatives is bequeathed the full share of parental property.
- The Khasi Hills Autonomous District Council (KHADC), an autonomous body under the Sixth Schedule of the Constitution, is scheduled to introduce the Khasi Hills Autonomous District Khasi Inheritance of Property Bill, 2021, for “equitable distribution” of parental property among siblings – each male and girl.
- The Khasis are a matrilineal society and trace inheritance and descent through the mother’s clan.
- The ‘custodian’ In the matrilineal Khasi community, lineage and inheritance is traced through the daughter.
- In maximum Khasi households, ancestral belongings is bequeathed to the youngest daughter (khatduh) of the family, who will become the “custodian” of the land, and takes over all obligations related to the land, together with looking after aged parents, single or destitute siblings.
- Custom also dictates that the khatduh cannot sell the property, without permission of her maternal uncle.
- **Problems associated** – In the Khasi custom, the youngest daughter inherits all the property of the parents.
- As a result, the siblings (not just boys, but eldest girl siblings too), do not get their share.
- Sometimes, when a couple has no children, and there is no genuine heir, the clan takes over the property, as per custom.
- Over the years, a few businesses have protested the system of belongings

inheritance, pronouncing it “disinherits” guys, and pressed for equitable belongings distribution between all kids within the own family.

- **Note** – Even if the KHADC does skip the Bill, Paragraph 12A of the Sixth Schedule says that the proper of passing a district council law ultimately rests with the nation legislature.

## **Topic 27. ASIAN DEVELOPMENT BANK**

***Importance for Prelims: IR***

# ADB

## Asian Development Bank

India seeks vaccine loans from ADB and AIIB

- ADB is a local development financial institution hooked up on 19th December 1966. ADB now has 68 participants, forty nine from within Asia. India is a founding member.
- The bank admits the participants of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, previously the Economic Commission for Asia and the Far East
- ADB's five largest shareholders are Japan and the United States (each with 15.6% of total shares), the People's Republic of China (6.4%), India (6.3%), and Australia (5.8%).
- It ambitions to sell social and financial improvement in Asia.
- ADB is dedicated to reaching a rich, inclusive, resilient, and sustainable Asia and the Pacific, whilst sustaining its efforts to eliminate severe poverty.
- ADB is established in Manila, Philippines.
- It is official United Nations Observer.
- Voting rights are modeled intently on the World Bank, and has a

comparable weighted voting gadget where votes are dispensed in share with individuals' capital subscriptions.

## Topic 28. UNESCO WORLD HERITAGE FORESTS

*Importance for Prelims: Environment*



UNESCO World Heritage forests: India's Sundarbans among 5 sites with highest 'blue carbon' globally

- India's Sundarbans National Park is amongst 5 sites that have the best **blue carbon stocks** globally, in line with a brand new evaluation of greenhouse gas volumes emitted from and absorbed by forests in UNESCO World Heritage sites.
- Also, such 'World Heritage forests' are now releasing more carbon than they are absorbing, primarily due to human activity and climate change, according to the assessment.
- Researchers at UNESCO, the World Resources Institute and the International Union for Conservation of Nature predicted the gross and net carbon absorbed and emitted by using UNESCO World Heritage forests between 2001 and 2020.
- They found that UNESCO World Heritage forests in 257 sites absorbed approximately 190 million tonnes of carbon dioxide (CO<sub>2</sub>) from the atmosphere each year.
- This determines, in step with the have a look at, turned into corresponding to kind of 1/2 the UK's annual CO<sub>2</sub> emissions from fossil fuels.
- World Heritage forests additionally saved massive quantities of carbon similarly to soaking up CO<sub>2</sub> from the surroundings.
- The study described blue carbon as organic carbon that is mainly obtained from decaying plant leaves, wood, roots and animals.
- It is captured and stored by coastal and marine ecosystems.
- UNESCO lists 50 sites across the globe for their unique marine values.
- These represent just one per cent of the global ocean area.
- But they comprise at least 15 per cent of global blue carbon assets.
- These 50 sites have carbon stores predicted at 1.4 Gigatonne Carbon (Gt C).
- The Sundarbans National Park has stores of 60 million tonnes of carbon (Mt C).

- The other four web sites besides the Sundarbans National Park in India are the Bangladeshi portion of the Sundarbans (a hundred and ten Mt C), Great Barrier Reef in Australia (502 Mt C), Everglades National Park in the United States (four hundred Mt C) and the Banc d'Arguin National Park in Mauritania (110 Mt C).
- Worrying scenarioThe researchers found that 10 of 257 forests emitted more carbon than they captured between 2001 and 2020 due to different anthropogenic disturbances and pressures.

**The 10 sites are:**

- Tropical Rainforest Heritage of Sumatra (Indonesia)
- Río Plátano Biosphere Reserve (Honduras)
- Yosemite National Park (US)
- Waterton Glacier International Peace Park (Canada, US)
- Barberton Makhonjwa Mountains (South Africa)
- Kinabalu Park (Malaysia)
- UvsNuur Basin (Russian Federation, Mongolia)
- Grand Canyon National Park (US)
- Greater Blue Mountains Area (Australia)
- MorneTrois Pitons National Park (Dominica).

## **Topic 29. AGNI-5 BALLISTIC MISSILE**

### ***Importance for Prelims: Defence and Security***

Agni-5 ballistic missile, with 5,000-km range, successfully tested in India

- Agni-5 ballistic missile, with 5,000-km range was successfully tested in India.

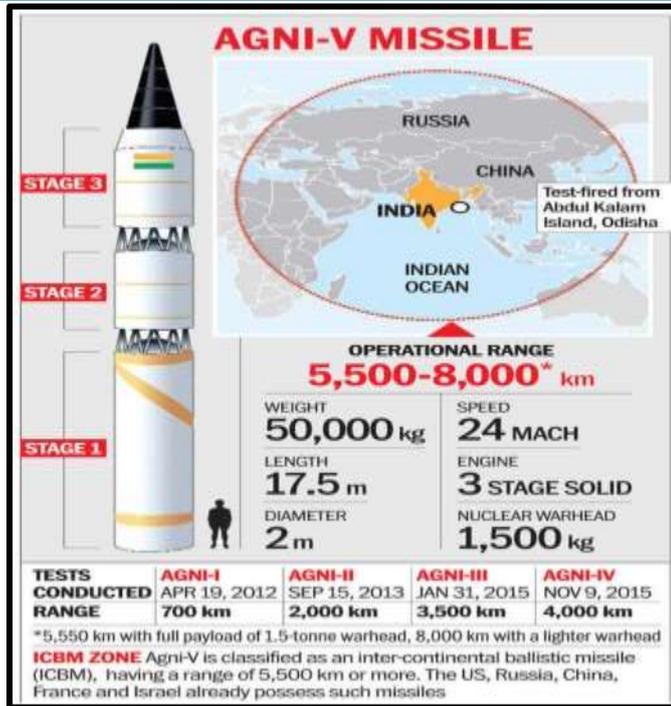
Though inducted over three years ago, India's foremost Agni 5 ballistic missile was tested for the first time by the user agency, the Strategic Forces Command (a joint tri-services command, responsible for India's nuclear weapons).

- The nuclear-successful missile is India's contender for the Intercontinental Ballistic Missile (ICBM) with a variety of five,000 km.
- Agni 5 is India's long-range floor-to-floor ballistic missile, that can hit a goal with a precision this is five,000 km away. This range puts almost the whole China in the missile's target variety.
- Though formally an ICBM needs a missile to have a range of at least 5,500 km, the Agni five is India's closest contender for an ICBM, as it is able to reach countries across different continents, such as elements of Africa and Europe.
- The nuclear capable missile can deliver a warhead of round 1,500 kg and has a launch weight of fifty,000 kg, making it one of the maximum potent missiles in the country.
- What makes Agni 5 agile is that it is a "canisterised" missile.
- It means that the missile can be launched from road and rail platforms, making it easier for it to be deployed and launched at a quicker pace.

- The canisterisation, which is an encapsulated gadget wherein the missile is stored and released from, additionally offers the missile a longer shelf life, defensive it from the harsher climatic situations.

### **History of Agni missiles**

- India started out testing the Agni collection of missiles in 1989 with the primary take a look at for Agni 1, an Intermediate-Range Ballistic Missile, with a number round 1,000 km. At that point handiest the USA, the erstwhile Soviet Union, China, France, and Israel, had IRBM generation.
- Since then, Defence Research and Development Organisation (DRDO) labs have persisted to work on it, bringing the modern available Agni 5 to its present capability.
- In addition to the IRBM-capable countries, most effective North Korea and the United Kingdom have ICBM era in the interim.
- While India is most of the handful of countries with (arguably) ICBM capability, the next generation of the missile, Agni VI, beneath improvement, is predicted to have more than a few around eight,000 km.
- Regarding hypersonic missile generation (tested by way of China currently), India is amongst a chosen few critical contenders working closer to it, even though it is at the back of China, the USA and Russia.



### What is a Hypersonic Glide Vehicle that China tested?

- China had in August examined a brand new hypersonic missile, which is nuclear successful, which turned around the earth earlier than moving towards its target, lacking it via dozen miles.
- While China denied the report claiming it to be a “spacecraft” and now not a missile, it has proven its capability in hypersonic waft car technology, which increases strategic issues not just for its neighbors like India, but even its competitors like the US.
- A hypersonic drift vehicle is released through a rocket that moves in the Earth’s lower orbit, at more than five times to twenty-five times the velocity of sound. The vehicle is capable of carrying nuclear payloads, which gives the launching country the strategic capacity to attack almost any target across the world.

### How is it different from an ICBM?

- Intercontinental Ballistic Missiles, that have more than a few over

five,500 km, have existed since that round World War II. These missiles, intended to hold nuclear payloads, have the capability to hold numerous warheads.

- While an ICBM follows a parabolic trajectory, which implies it goes up and then comes down in an excessive arc-like while you throw up a ball, simplest a whole lot higher, further, and faster—a hypersonic glide vehicle orbits the earth at a lower peak, and is maneuverable. The capacity to alternate target or goal, mid-trajectory, together with the velocity, makes them tougher to the detect and guard towards.
- Hypersonic missiles can travel approximately at 5,000 to 25,000 km per hour, which makes them six to over 25 times faster than modern commercial aircraft. They fly at the heights of a few tens and 100 km. The blend of the high altitude, excessive pace and the capacity to be maneuvered makes them, both difficult to the nice missile defenses now predicted and, till the final minutes of flight, unpredictable as to their targets.
- Hypersonic missile’s capability gives them both offensive and defensive advantages. The manoeuvrability of such missiles can potentially offer them to use “in-flight updates to assault a different goal than originally planned” and the “potential to fly at unpredictable trajectories, these missiles will hold extremely large areas at risk throughout much of their flights”.
- However ICBM would remain the preferred choice, because they are more efficient. They are called the hypersonic glide vehicle “exotic”.

### **Which countries have hypersonic technology?**

- Apart from China, the US and Russia are working on the technology. While this will be China’s first such check for the capability.

- According to the Rand Corporation’s 2017 report, France and India “are the most committed” about gaining the capability, and “both draw to some extent on cooperation with Russia”. It noted that Australia, Japan, and European entities are also working towards it.
- The report stated that hypersonic technology has a dual-use character, as it can be used for non-military purposes like space launch and spacecraft retrieval.

### **Topic 30. NATIONAL COMMISSION FOR SCHEDULED CASTES**

#### ***Importance for Prelims: Polity***

Sameer Wankhede writes to SC Commission over harassment by Nawab Malik.

- NCSC is a constitutional body that works to safeguard the interests of the scheduled castes (SC) in India.
- **Article 338 of the constitution of India deals with this commission:** It provides for a National Commission for the Scheduled Castes and Scheduled Tribes with duties to investigate and Screen all subjects referring to safeguards supplied for them, to inquire into particular court cases and to take part and propose at the planning process in their socio-monetary development and many others.
- Its history – Special Officer: Initially, the constitution provided for the appointment of a Special Officer under Article 338.
- The special officer was designated as the Commissioner for Scheduled

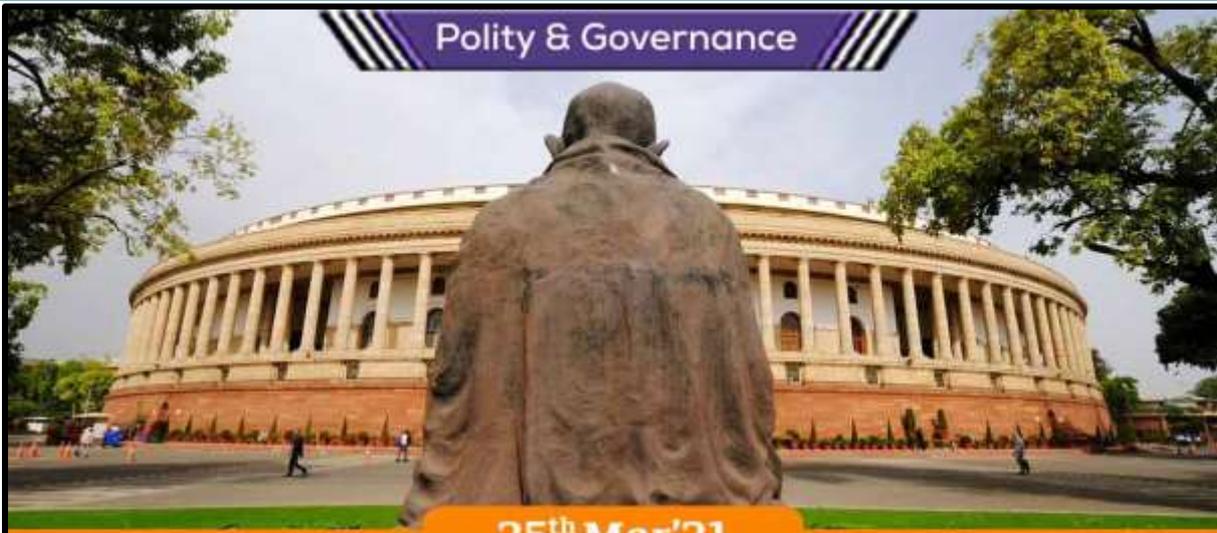
Castes and Scheduled Tribes.

- 65th Amendment, 1990: It replaced the one-member system with a multi-member National Commission for Scheduled Castes (SC) and Scheduled Tribes (ST).
- **The Constitution (65th Amendment) Act 1990, amended Article 338 of the Constitution. 89th Amendment, 2003:**By this amendment, the erstwhile National Commission for SC and ST was changed by way of separate Commissions from the 12 months 2004 which have been: National Commission for Scheduled Castes (NCSC) and National Commission for Scheduled Tribes (NCST)- under Article 338-A.
- **Structure** – Chairperson. Vice-chairperson. Three other members. They are appointed by means of the President through warrant beneath his hand and seal.
- **Functions** – Monitoring and investigating all issues concerning the safeguards provided for the SCs under the constitution.
- Enquiring into complaints relating to the deprivation of the rights and safeguards of the SCs.
- Taking part in and advising the valuable or country governments with respect to the planning of socio-financial development of the SCs.
- Regular reporting to the President of the united states on the implementation of those safeguards.
- Recommending steps to be taken to further the socio-economic development and other welfare activities of the SCs.
- Any other function with respect to the welfare, protection, development and advancement of the SC community.
- Constitutional Provisions For Upliftment of the Schedule
- **Caste** – Article 15(4) refers to the special provisions for their advancement.

- Article sixteen(4A) speaks of “reservation in topics of advertising to any magnificence or training of posts in the offerings beneath the State in favour of SCs/STs, which aren'tadequately represented in the services under the State’.
- Article 17 abolishes Untouchability. Article 46 requires the State ‘to sell with special care the instructional and financial hobbies of the weaker sections of the humans, and, especially, of the Scheduled Castes and the Scheduled Tribes, and to guard them against social injustice and all kinds of exploitation.
- Article 335 provides that the claims of the individuals of the Scheduled Castes and the Scheduled Tribes will be taken into consideration, continuously with the upkeep of efficiency of management, within the making of appointments to offerings and posts in connection with the affairs of the Union or of a State.
- Article 330 and Article 332 of the Constitution respectively provide for reservation of seats in favor of the Scheduled Castes and the Scheduled Tribes in the House of the People and within the legislative assemblies of the States. Under Part IX regarding the Panchayats and Part IXA of the Constitution relating to the Municipalities, reservation for SC and ST in neighborhood bodies has been envisaged and furnished.

**Topic 31. THE JUVENILE JUSTICE (CARE AND PROTECTION OF CHILDREN) AMENDMENT BILL 2021**

*Importance for Prelims: Governance*



## Lok Sabha passes Juvenile Justice (Care and Protection of Children) Amendment Bill 2021

 POKET.NEWS

- The Bill seeks to amend the Juvenile Justice (Care and Protection of Children) Act, 2015.
- The amendments include authorizing District Magistrate including Additional District Magistrate to issue adoption orders to ensure speedy disposal of cases and enhance accountability.
- Defining eligibility parameters for appointment of Child Welfare Committee members and the categorizing previously undefined offences as serious offences are some of the other aspects of the Bill.

### Centre proposes stricter regulations for CWC

- The Juvenile Justice (Care and Protection of Children) Act, 2015 states that adoption of a child is final on the issuance of an adoption order by the civil court.
- The Bill provides that instead of the court, the district magistrate (including additional district magistrate) will issue such adoption orders.
- **Adoption:** Under the Act, once prospective adoptive parents accept a

child, an adoption agency files an application in a civil court to obtain the adoption order.

- The adoption order issued by using the court establishes that the kid belongs to the adoptive parents.
- The Bill provides that instead of the court, the district magistrate (including additional district magistrate) will perform these duties and issue all such orders.
- **Appeals:** The Bill affords that any individual aggrieved by an adoption order surpassed by means of the district magistrate may file an enchantment before the Divisional Commissioner, within 30 days of such order.
- Such appeals ought to be disposed within four weeks from the date of submitting of the attraction.
- The Act provides that there will be no appeal for any order made by a Child Welfare Committee concluding that a person is not a child in need of care and protection.
- **The Bill removes this provision. Serious offences:** The Act provides that the Juvenile Justice Board will inquire about a child who is accused of a serious offence.
- Serious offences are those for which the punishment is imprisonment between three to seven years.
- The Bill adds that serious offences will also include offences for which maximum punishment is imprisonment of more than seven years, and minimum punishment is not prescribed or is less than seven years.
- **Designated Court:** The Act provides that offenses towards kids which can be punishable with imprisonment of more than seven years, might be attempted inside the Children's Court (equivalent to a Sessions Court).
- Other offences (punishable with imprisonment of less than seven years)

will be tried by a Judicial Magistrate.

- The Bill amends this to provide that all offences under the Act will be tried in the Children's Court.
- **Offences against children:** The Act affords that an offense underneath the Act, which is punishable with imprisonment among three to seven years will be cognizable (where arrest is allowed without warrant) and non-bailable.
- The Bill provides that such offences will be non-cognizable and non-bailable.
- **Child Welfare Committees (CWCs):** The Act presents that states should represent one or more CWCs for each district for coping with kids in want of care and protection.
- It provides certain criteria for the appointment of members to CWC.
- **For instance, a member should be:** (i) involved in health, education, or welfare of children for at least seven years, or (ii) a practising professional with a degree in child psychology, psychiatry, law, or social work.
- The Bill adds certain criteria for a person to be ineligible to be a member of the CWC.
- **These include:** (i) having any record of violation of human rights or child rights, or (ii) being a part of the management of a child care institution in a district.

## Topic 32. PACIFIC ISLANDS

### *Importance for Prelims: Geography*



Actions, not words – Pacific Islands urge strong commitment on climate

- Three major groups of islands in the Pacific Ocean are Melanesia, Micronesia and Polynesia.
- The indigenous inhabitants of the Pacific Islands are referred to as Pacific Islanders.
- The Pacific Island vicinity covers extra than 300,000 square miles (800,000 square km) of land—of which New Zealand and the island of New Guinea make up about nine-tenths—and hundreds of thousands of square miles of ocean.
- Most Pacific islands are coral formations, although all of these rest on volcanic or other cores.
- It excludes the following – the neighbouring island continent of Australia, the Asia-related Indonesian, Philippine, Japanese archipelagoes, and the Ryukyu, Bonin, Volcano, and Kuril island arcs that project seaward from Japan the Aleutian chain or such isolated islands of the Pacific Ocean as the Juan Fernández group off the coast of South America.

- **Melanesia** The great arc of islands located north and east of Australia and south of the Equator is called Melanesia (from the Greek words melas, “black,” and nēsos, “island”) For the predominantly darkish-skinned peoples of New Guinea island, the Bismarck Archipelago, Solomon Islands, Vanuatu (the New Hebrides), New Caledonia, and Fiji.
- **Micronesia** North of the Equator and east of the Philippines are the islands of Micronesia, which form an arc that ranges from Palau, Guam, and the Northern Mariana Islands Within the west eastward via the Federated States of Micronesia (the Caroline Islands), Nauru, and the Marshall Islands to Kiribati.
- **Polynesia** In the Jap Pacific, largely enclosed within a large triangle fashioned through the Hawaiian Islands to the north, New Zealand to the southwest, and Easter Island (Rapa Nui) ways to the east, are the many (“poly”) islands of Polynesia

### **Topic 33. THE JORO SPIDER**

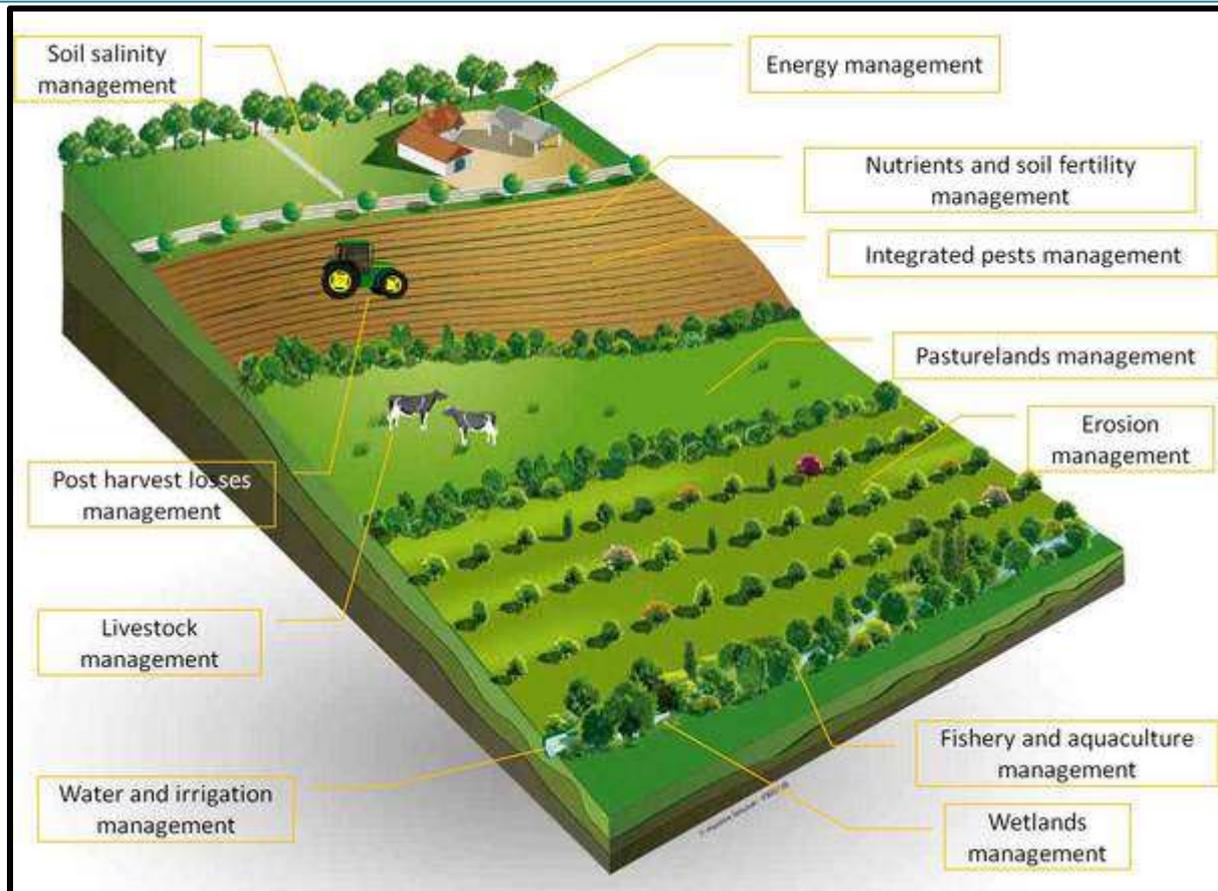
*Importance for Prelims: Environment*

Asian spider seen in Georgia

- The Joro spider, (*Trichonephila clavata*) is common in Japan, China, Korea and Taiwan, Joro females have colourful yellow, blue and red markings on their bodies.
- It's not clear exactly how and when the first Joro spider arrived in the U.S. Or why they're so abundant this yr.
- **The bottom line is:** There are many unknowns. Most of the Joros are expected to die by using overdue November, however they'll go back in equally large, or maybe larger, numbers subsequent year, though scientists say even that is hard to predict with any certainty.

### **Topic 34. INTEGRATED FARMING WITH INTER-CROPPING**

*Importance for Prelims: Agriculture*



### Indian farming practices: Learning from elsewhere in the world

- Integrated farming with intercropping increases meals manufacturing even as lowering environmental footprint.
- A work found that (1) “relay planting” enhances yield, (2) within-field rotation or “strip rotation”, allowing strips for planting other plants (such as grass, fruits) besides the major crop was more fruitful, (3) “soil munching,” that is, available means such as crop straw, in addition to the major crop such as wheat or rice, and (4) “no-till” or a Reduced tillage, which will increase the once a year crop yield up by means of 15.6% to 49.Nine%, and decreasing the environmental footprint by using 17.Three%, compared with conventional monoculture cropping.
- This led to the conclusion that small farm holders can grow more food and have reduced environmental footprint.
- About 70% of its rural households still depend primarily on agriculture

for their livelihood, with 82% of farmers being small and marginal.

- Relay Planting – Relay planting means the planting of different crops in the same plot, one right after another, in the same season.
- Reduced tillage, which will increase the once a year crop yield up by means of 15.6% to 49.9%, and decreasing the environmental footprint by using 17.3%, compared with conventional monoculture cropping.
- **Advantages of relay planting** – less risk since you do not have to depend on one crop alone.
- It additionally approach better distribution of labour, insects spread less, and any legumes honestly upload nitrogen to the soil!
- Difficulties involved with relay planting – mechanisation here can be difficult, management requirements are somewhat higher.
- It is here that women come in handy.
- Women plant materials for home food, such as greens, leafy vegetables and pulses such as green grams, Finger millet (ragi in Hindi, kezhwaragu in Tamil) horse gram (chaneki dal In Hindi, kudure gram in Kannada, and kollu in Tamil), cowpeas, and also grass (all of which add to the nitrogen to the soil and additionally to the sector around us, solving nitrogen no longer just underneath our feet but also in the air we breathe; the carbon dioxide, ozone, and the oxides of nitrogen and phosphorus that we inhale everyday from the filthy atmosphere is at least nullified a little, thanks to relay cropping.
- Strip Cropping – Strip cropping has been used in the U.S. (where the fields are large than those in India), where they grow wheat, together with corn and soyabean, within the same farm in an opportunity manner. However, this needs large lands.
- In India, in which there are large fields (consisting of the ones owned by way of towns and kingdom governments), the land is divided into strips,

and strips of grass are left to grow between the crops.

- Planting of trees to create shelters has helped in stabilising the desert in Western India.
- Western Karnataka (and the nearby Telangana and Northern Tamil Nadu), dry belts with frequent droughts, where 80% of the farmers depend on groundnut as their option.
- Soil mulching and no-till – Soil mulching requires keeping all bare soil covered with straw, leaves, and the like, even when the land is in use.
- Erosion is curtailed, moisture retained, and beneficial organisms, such as earthworms, kept in place.
- The same set of benefits are also offered by not tilling the soil.
- These four methods suggested by the international group are worth following in India.