

Factly Weekly

Compilation

2024

**For UPSC CSE Prelims
Exam**

**4th Week
April 2024**

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Subject: World Geography

Ringwoodite

Why in the news?

Scientists have recently discovered a hidden ocean which is 700 km below earth's Surface. The ocean is located within a mineral called ringwoodite.

About Ringwoodite



Figure 1. Source-Agriculture World

Description-It is a fascinating mineral that exists in the Earth's **transition zone**.

Formation-It is a rare type of mineral that forms from **olivine** under very high pressures and temperatures. The heavy weight of rocks hundreds of kilometers thick and extremely high temperatures above 1,000 degrees Celsius (1,832 Fahrenheit) break down water into its components.

Properties-

1) This mineral has a special crystal structure that can soak up **water** and **hydrogen**, like a sponge. It can hold a lot of water.

2) When these water-containing minerals reach specific depths, they break down

through **dehydration**, releasing the water to create magmas. Such "**dehydration melting**" is common in the shallow mantle and forms the source for magmas in many volcanoes.

What is the significance of this discovery?

1) This ocean is much larger than **all the surface oceans** combined. Its size raises questions about current theories on the source of earth's water and suggests new inquiries into the planet's formation and development.

2) This finding strongly suggests that Earth's water might have come from **deep** within the planet. With the passage of time, it slowly leaked out from the core, explaining why **earth** has so much water.

3) This internal water source could also play a role in volcanic activity and the formation of new crust.

Mount Erebus

Why in the news?

Mount Erebus, an active volcano in Antarctica, has been in the news for emitting gold dust valued at \$6000 daily.

About Mount Erebus



Figure 2. Source- Wikipedia

Description-It is the most southerly active volcano on Earth. It was discovered in 1841 by the British explorer Sir James Clark Ross, who named it after his ship, the Erebus.

Location-It is situated on Ross Island, Antarctica.

Type of volcano-It's a stratovolcano that is characterized by a conical shape and layers of hardened lava, tephra, and volcanic ash.

Lava lake-It is known for its persistent lava lake. The lake has been active since at least 1972 and is one of only a few long-lived lava lakes on Earth.

Frequency of eruption-It constantly churns and occasionally spews bombs of molten rock in Strombolian eruptions. It is being monitored by satellites, primarily because of its remote location.

What is a Stratovolcano?

Description-It is a tall, steep, and cone-shaped type of volcano. Unlike flat shield volcanoes, they have higher peaks. At the top, stratovolcanoes usually have a small crater. It may hold water, ice, or even a volcanic dome when it's not very active.

Location-They're usually found above subduction zones and are part of big, volcanic areas like the Ring of Fire around much of the Pacific Ocean.

Type of lava-Strata Volcanoes make up about 60% of the Earth's volcanoes. They mostly erupt with andesite and dacite, which are cooler and viscous lavas compared to basalt. These more viscous lavas allow gas pressures to build up to high levels. Therefore, these volcanoes often suffer explosive eruptions.

NOTE-Strombolian eruptions

- 1) They are moderately explosive eruptions of basaltic magma with moderate gas content.
- 2) They consist of intermittent, discrete explosive bursts which eject pyroclasts as high as hundreds of feet into the air in firework-like incandescent rooster-tails. Strombolian eruptions are louder than Hawaiian eruptions, and generally are of more viscous magma.

Subject: Indian Economy

RBI draft rules for payment aggregators

Why in the news?

The Reserve Bank of India is proposing new regulations for offline payment aggregators (PAs) to enhance safety.

About the payment aggregators:

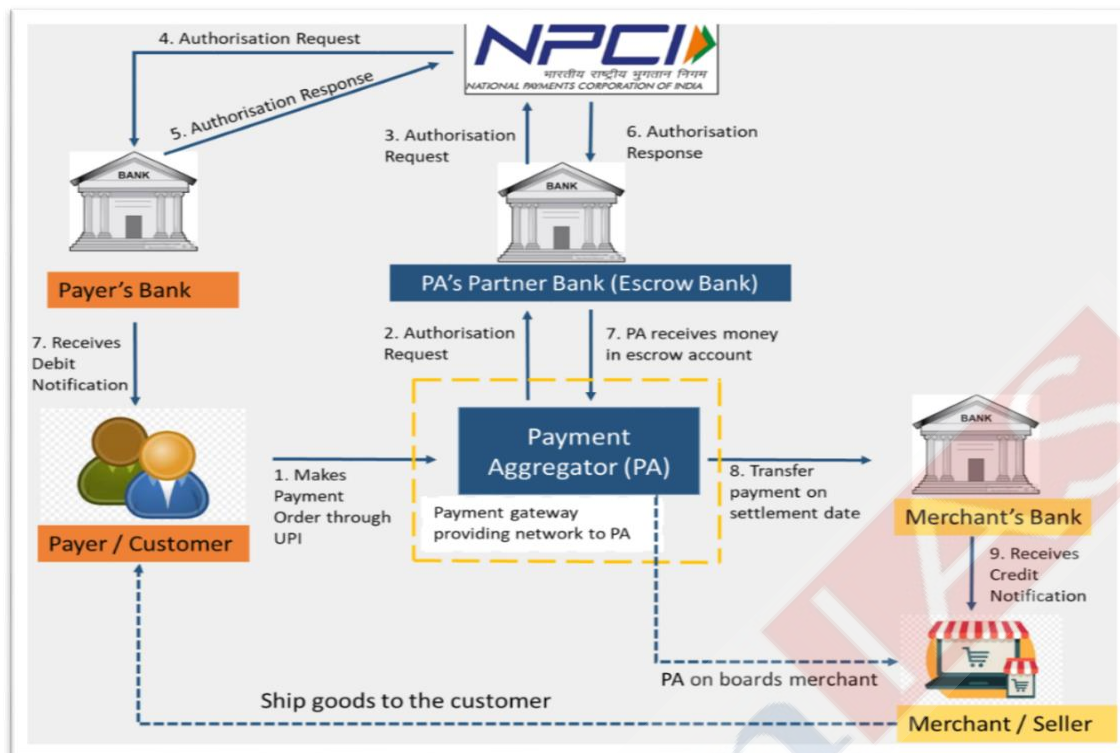


Fig 1: End to end non-bank payment aggregator transactional flow

The blue dotted lines in the fig. do not form part of payment system, but forms an important part of legal basis in merchant on-boarding process and shipment of goods to the customers in a PA business model.

Source: Author

vinodkothari.com

1. About Payment Aggregators (PAs): PAs are entities responsible for enlisting merchants and streamlining the process of collecting payments from customers for the purchase of goods and services. These aggregators unburden the merchants from creating a payment integration system of their own.

2. Methods employed by PAs to collect payments- PAs utilize various payment channels like online QR codes or physical point-of-sale (POS) machines to collect payments on behalf of the merchants. Subsequently, PAs settle the accumulated funds with the respective merchants.

3. Types of PAs: Two major types of PAs are a part of the payments ecosystem in the country: This includes PA-Online Point of Sale (PA-O) and PA - Physical Point of Sale (PA-P).

4. Inclusion of PA - Physical Point of Sale (PA-P) in the revised definition of payment aggregators- The revised definition of payment aggregators has been modified to include physical point-of-sale payment providers such as Innoviti Payments, Pine Labs, and MSwipe. Thus they have been subjected to regulatory oversight.

About new RBI guidelines for payment aggregators

1. Non-bank PoS providers must notify RBI within 60 days and submit authorization applications by May 31, 2025.
2. Banks must close accounts for non-bank payment aggregators by October 31, 2025, unless authorized.
3. Net-worth requirements for PAs facilitating face-to-face transactions have been changed. PAs net worth requirements will be increased to Rs 25 crore by March 2028.
4. Medium merchants, defined as physical or online merchants with annual business turnover of less than ₹40 lakhs who are not registered under the GST, would also have to undergo contact point verification.
5. PAs have to bolster risk management with KYC norms, tailored for small and medium-sized merchants.

6. PAs can now use escrow accounts for both PA-O and PA-P activities, including goods delivery. All PAs must join the FIU to report suspicious transactions.

7. Starting August 1, 2025, only card issuers and networks can store card data for face-to-face transactions.

Green taxonomy

Why in the news?

The latest RBI's Monetary Policy Report gives primacy to the impact of climate shocks on the economy's financial stability. This reflects RBI's step towards the adoption of the system of green taxonomy, being used by the ASEAN countries.

About green taxonomy



Figure 3. Source: IEEFA

1. About green taxonomy: Green taxonomy is a framework that is used to determine environmentally sustainable investment in the economy. It helps in classification of whether the economic activities as green and environmentally sustainable.

2. Aim: It aims to increase investment in green activities and assets and facilitate

the detection of greenwashing practices.

3. Necessity of incorporation of green taxonomies:

- It helps the financial markets to align their investments with the goal of net-zero emissions.
- It also helps in the cultivation of an environmentally sustainable economy. It also helps to reorient capital towards environmentally sustainable economic activities.

4. How RBI and Finance Ministry can utilise green taxonomy:

- The RBI and Finance Ministry can draw lessons from the ASEAN region. The ASEAN countries have adopted a dynamic green taxonomy, which is continuously updated according to the evolving sustainable practices in different sectors.
- RBI has taken positive steps towards green taxonomy by issuing Sovereign Green Bonds and expanding participation in green government securities by Foreign Institutional Investors.

Critical Minerals Summit

Why in the News?

The Ministry of Mines will hold a two day 'Critical Minerals Summit: Enhancing Beneficiation and Processing Capabilities.'

About the Critical Minerals Summit:

1. About Critical Minerals Summit: It will be held from **April 29th to April 30th, 2024**, at the India Habitat Centre in Lodhi Estate, New Delhi.

2. Organized by: It was organized by **Ministry of Mines, Government of India**, in collaboration with the Shakti Sustainable Energy Foundation (Shakti), the Council on Energy, Environment and Water (CEEW), and the Indian Institute of Sustainable Development (IISD).

3. Goal: The goal of the summit is **to equip government and industry stakeholders with the knowledge, connections, and tools** necessary to accelerate the domestic production of CRMs. This initiative will contribute to India's economic growth and sustainability goals.

4. Purpose: It is organized **to promote collaboration, share knowledge, and drive innovation** in the field of critical mineral beneficiaries and processing.

5. Features of the summit:

a) Emphasis on eight key minerals: The summit includes technical sessions on eight key minerals, including **Glauconite (Potash), Lithium - Rare Earth Elements (Laterite), Chromium, Platinum Group, Graphite, Tungsten associated with Graphite, Rare Earths (RE), and Vanadium associated with Graphite.**

b) Collaboration among various stakeholders: The summit **will unite a diverse range of stakeholders from India and abroad**, comprising industry leaders, startups, government officials, scientists, academics, and policy experts.

c) Tackle the growing demand for Critical Raw Materials (CRMs): It will address the growing demand for **Critical Raw Materials (CRMs)** which is essential for renewable energy systems and electric vehicles in line with India's strategic development objectives.

d) Discussions and interactive workshops: Participants will participate **in dynamic discussions and interactive workshops** addressing vital issues such as **mineral auction progress, policy incentives for CRM ecosystem development**, and the promotion of commercially viable and environmentally sustainable solutions.

Subject: Defence Exercise in news

Exercise Poorvi Lehar

Why in the news?

The Indian Navy carried out Exercise Poorvi Lehar on the East Coast under the operational command of the Flag Officer Commanding-in-Chief, Eastern Naval Command.

About Exercise Poorvi Lehar



Figure 4. Source-PIB

Description-It is a **maritime exercise** conducted by the Indian Navy along the East Coast, under the operational direction of the Flag Officer Commanding-in-Chief, Eastern Naval Command.

Aim of the exercise-The exercise is aimed at assessing the ability of the Indian Navy to handle **maritime security challenges** in the region by testing its procedures.

Participation-The exercise witnessed participation of Ships, Submarines, Aircraft and Special Forces.

Phases-The exercise had different stages. In one part, there was **combat training** in a realistic scenario, and in another, they successfully fired various weapons to show the Indian Navy's ability to hit targets accurately.

Interoperability-Apart from assets from the Eastern Naval Command, the exercise also included assets from the **Indian Air Force, Andaman & Nicobar Command**, and Coast Guard. This demonstrated a high degree of interoperability amongst the Services

What is the significance of the Exercise Poorvi Lehar?

- 1) It provided important lessons to the **participating forces**. This has helped them to prepare themselves in a better way to respond effectively to real maritime challenges in the region.
- 2) It has helped in maintaining continuous **Maritime Domain Awareness** throughout the Area of operations by using aircraft from diverse locations.

Science and technology

Rampage Missile

Why in the news?

Israel has recently used the Rampage missile to attack an Iranian military base. Rampage missile is a powerful air-to-surface missile.

About Rampage Missile

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Aspect	Details
Description	It is a long-range, supersonic, air-to-ground , seekerless, precision strike missile.
Developed by	It was developed by Israel Aerospace Industries and Israeli Military Industries Systems .
Objective	To destroy high-quality, well-protected targets , such as communication and command centres, air force bases, maintenance centres, and infrastructure.
Features	<ol style="list-style-type: none">1) Length-It is 4.7m (15.4ft) long and has a total weight of 570kg.2) Speed-It may travel at supersonic speeds, making it difficult to identify and intercept with air defence systems.3) Range-It has a range of over 190 miles.5) Delivery-It can be fired from an aircraft or as a stand-alone system and uses GPS/INS guidance navigation and anti-jamming capabilities.6) It can adjust its path mid-flight, to precisely hit the target it was programmed to hit.7) It can operate in any weather conditions, day or night.



Source-Army Recognition

Biomarkers

Why in the news?

For the potential detection of cancer in its earlier stages, **screening of blood biomarkers** is being suggested as a possible method by researchers.

According to the researchers, a new AI-powered test **can be used to accurately and quickly detect three major types of cancer**, by using only a **single spot of dried blood**. This dried blood spot can serve as a biomarker for cancer detection.

About Biomarkers

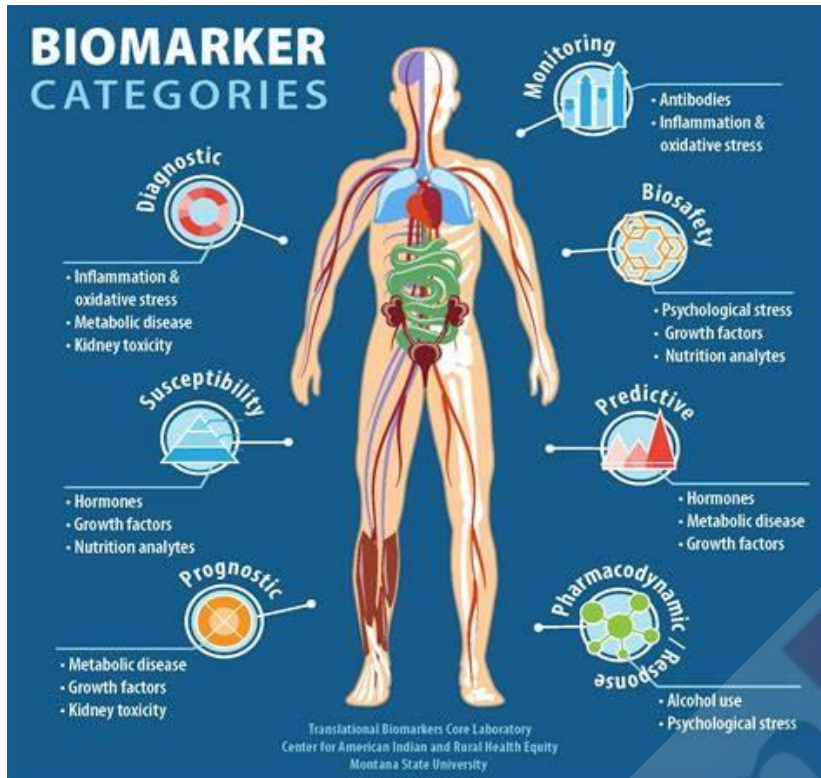


Figure 5. Source: montana.edu

genes, DNA, RNA, platelets, enzymes, and hormones.

4. Biomarkers play a crucial role in **disease diagnosis, appropriate drug prescription, dosage determination, and drug development.**

1. According to WHO, Biomarker is defined as **any measurement which reflects an interaction between a biological system and a potential hazard.** This potential hazard may be chemical, physical, or biological. The measured response is measured in **functional, physiological or biochemical terms.**

2. It is an **objective measurement** that captures what is happening in a cell or an organism at a given moment. It is often referred to as **molecular markers or signature molecules.**

3. Biomarkers **consist of biomolecules** like carbohydrates, proteins, lipids,

Voyager 1 and 2 spacecraft

Why in news?

Recently, NASA has announced that its Voyager 1 probe has resumed transmitting valuable data to ground control.

About Voyager 1 spacecraft

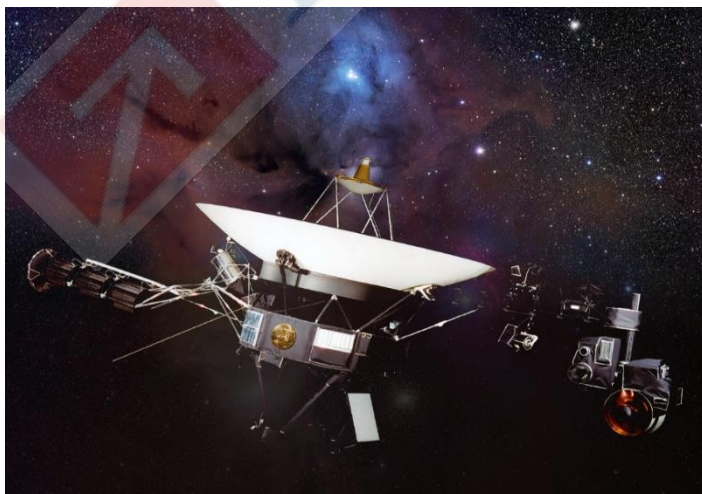


Figure 6. Brownspace.com

1. **About the mission and its objective-** Voyager 1 is a space probe **launched by NASA in 1977.** Its primary objective is to **explore the outer Solar System and beyond.** Voyager 1's mission involved flybys of **Jupiter and Saturn, focusing on studying their moons, rings, and magnetic fields.**

2. **Special Features-** In August 2012, Voyager-1 entered interstellar space, becoming the first human-made object to exit the solar system.

3. **Significant Discoveries-** Significant discoveries by **Voyager**

1 include identifying a thin ring around Jupiter and two previously unknown Jovian moons, Thebe and Metis. At Saturn, it found five new moons and a newly designated ring, the G-ring.

About Voyager 2 Spacecraft



Figure 7.Precesscitron.com

1. About the mission and its objective- Voyager 2 is a space probe launched by NASA on August 20, 1977, as part of the Voyager program, alongside Voyager 1. Its primary mission was to explore the outer planets of the solar system and their moons, followed by an interstellar mission.

2. Special achievements- It is the only spacecraft to conduct close-range studies of all four giant planets in the solar system. It was the first human-made object to fly by Neptune, where it discovered five moons, four rings, and a feature known as the "Great Dark Spot"

About Interstellar space

1. It is the area between the stars.
2. It contains vast quantities of neutrinos, charged particles, atoms, molecules, dark matter and photons.

Crystal Maze 2

Why in the news?

The Indian Air Force (IAF) has successfully carried out a test firing of a new version of an air-launched medium-range ballistic missile, Crystal Maze 2 that is capable of hitting targets at a distance exceeding 250 km.

About Crystal Maze 2



Source: India today

1. The Crystal Maze 2 is an air-launched ballistic missile. It is also known as ROCKS. It has **originated from Israel** and boasts a striking range of 250 kilometers.
2. It was fired from a **Su-30 MKI fighter jet** stationed in the **Andaman and Nicobar Islands**.
3. Crystal Maze 2 targets both **stationary and relocatable assets of significant value**, and is capable of neutralizing enemy long-range radar and air defense systems.
4. The missile can **effectively eliminate above-ground or heavily fortified underground targets**, even within heavily defended surface-to-air areas.

Nephrotic Syndrome

Why in the News?

Researchers from Kerala have reported a series of cases from Malappuram district where the regular use of fairness creams has been linked to nephrotic syndrome.

About Nephrotic Syndrome

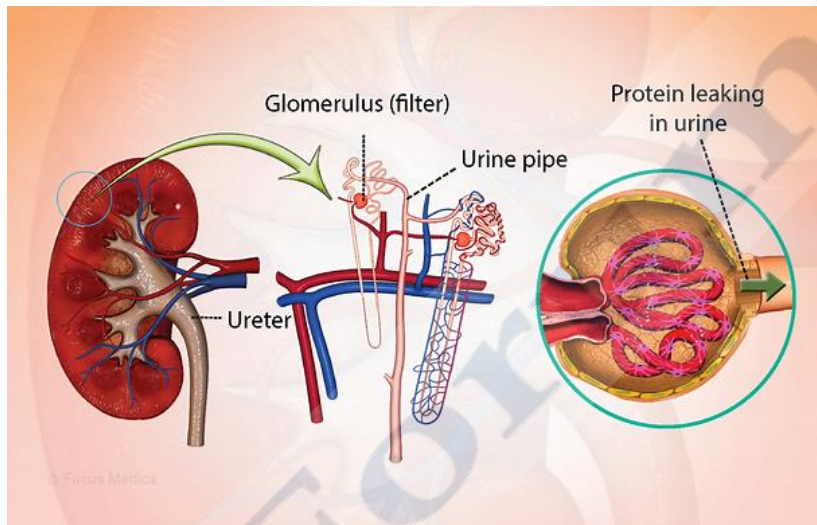


Figure 8. Source: Focus Medica

1. About Nephrotic

syndrome: It is a **kidney disorder** characterized by **excessive protein loss in urine** due to issues with the **kidneys' filtration system, specifically the glomeruli**.

2. Function of glomeruli: In healthy kidneys, **glomeruli filter waste and excess fluids while retaining essential cells and proteins**.

3. What happens in nephrotic syndrome: In nephrotic syndrome, **inflamed glomeruli allow too much protein**

leakage. This condition can result from various kidney diseases or systemic disorders like diabetes or lupus.

4. Symptoms: Symptoms include **severe swelling, foamy urine, high blood fat levels, weight gain, fatigue, and loss of appetite**.

Complications may include **blood clots, increased infection risk, high blood pressure, and potential kidney issues, such as chronic kidney disease or kidney failure**.

5. Treatment: Treatment involves **managing the underlying cause and addressing related concerns, including blood pressure control, cholesterol reduction, swelling mitigation, and infection prevention through medication and dietary adjustments**.

Thrombocytopenia Syndrome (TTS)

Why in the News?

Recently, concerns were raised over the rare side effects of the AstraZeneca-Oxford COVID vaccine. AstraZeneca has admitted that its vaccine can cause Thrombocytopenia Syndrome (TTS) in rare case.

About Thrombocytopenia Syndrome (TTS)

1. About Thrombocytopenia Syndrome (TTS): It is a **rare condition** in which there is simultaneous **occurrence of blood clots (thrombosis) and a low platelet count (thrombocytopenia)**. It is also known as '**vaccine-induced immune thrombotic thrombocytopenia**' (VITT).

Note: **Thrombosis** is the **formation of a blood clot**, which can reduce normal blood flow in an affected blood vessel.

2. Symptoms: Various symptoms are linked to TTS, such as **shortness of breath, chest or limb pain, tiny red spots or bruising on the skin beyond the injection site, headaches, and numbness in certain body regions**. TTS may result in restricted blood flow due to clot formation.

3. Diagnosis and treatment:

Diagnosis- Diagnosis of TTS involves a combination of blood tests and imaging studies, such as CT scans.

Treatment- Treatment for TTS is typically comprised of the following-

- Anticoagulant medications** to prevent further clotting.
- Intravenous immunoglobulin (IVIG)** which involves infusing a blood product containing antibodies
- High-dose prednisone**, which is a form of steroid medication.

How are TTS and blood clots linked to the AstraZeneca vaccine?

- TTS was a rare syndrome reported in people who received a Covid-19 **adenovirus vector-based vaccine**. The incidence of TTS has been **marginally higher among individuals under 60 years of age**.
- TTS can be seen in various body regions, **including the brain, the abdomen, the lungs, limb veins and arteries**.
- The process that causes TTS is not fully understood, but it is believed to be similar to **heparin-induced thrombocytopenia (HIT)** which is also a rare reaction to a medicine called heparin that affects how platelets works.

Vasuki Indicus

Why in the news?

Researchers have discovered the fossils of one of the largest snakes that ever existed, which has been named Vasuki Indicus.

About Vasuki Indicus



Figure 9. Source-The Hindu

Location-The fossils of Vasuki indicus were found in Kutch, Gujarat.

Description-Vasuki is the name of the **mythical snake** often seen around the neck of the Hindu god **Shiva**.

Time period-It lived in the Middle Eocene period (roughly 47 million years ago) in India. The organism lived at a time when temperatures were relatively warm, at roughly 28 °C.

Family-It belonged to the **now-extinct Madtsoiidae** snake family. However, it represents a unique lineage from India.Madtsoiidae are Gondwanan terrestrial snakes that lived between the Upper Cretaceous (100.5 million to 66 million years ago) and the Late Pleistocene (0.126 million years ago to 0.012 million years ago).

Habitat-These snakes moved from India across southern Eurasia and into North Africa after the Indian subcontinent collided into Eurasia around 50 million years ago.

Features:

- 1) It reached lengths between 10 and 15 metres long and 1 tonne in weight.
- 2)It probably had a broad and cylindrical body, hinting at a robust and powerful build.It was as large as **Titanoboa**, a huge snake that lived on Earth and is said to be the longest ever discovered.
- 3) It was a slow-moving predator that would catch its prey by squeezing, similar to anacondas and pythons.

Subject: Report

State of the Climate in Asia 2023 report

Why in the news?

The World Meteorological Organization has recently published the 'State of the Climate in Asia 2023' report.

Highlights of the report



Source: Indian express

1. Asia has faced the most number of disasters in the world in 2023. There have been recorded instances of **79 events** associated with **extreme weather, climate, and water-related hazards**. These events have **affected over nine million people in the region** and directly resulted in the loss of over 2,000 lives.

2. The majority of disasters which have occurred in Asia are related to flooding and storms. **Over 60% of the 2,000 deaths have been associated with flooding** and **more than 15% of the deaths were linked to storms**.

3. Asia has **warmed faster than the global average**. This warming trend has nearly doubled since the 1961-1990 period.

4. Deterioration of **climate change indicators**, such as rise in surface temperatures, glacier retreat, and sea level rise, will have significant consequences for Asia's economy, ecosystems, and human lives.

Subject: Environment

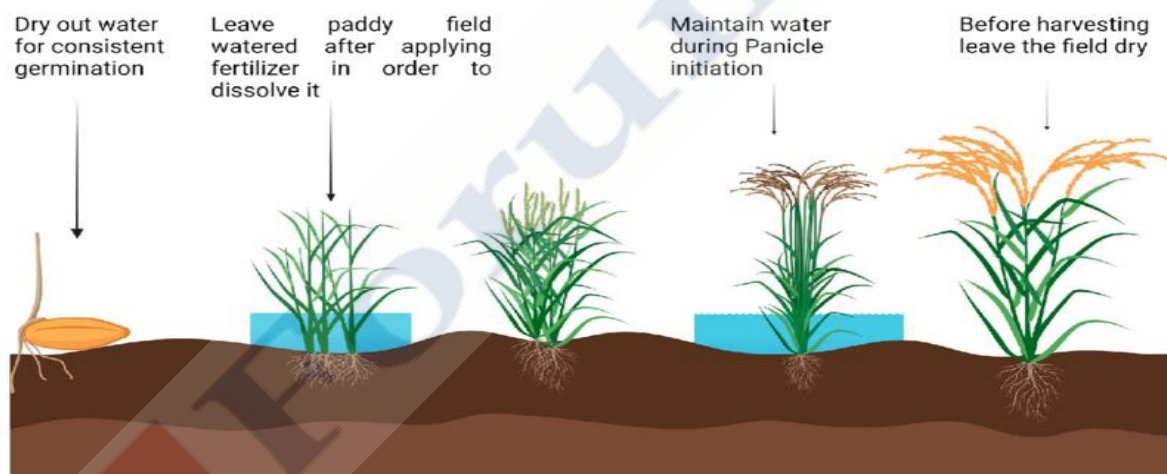
Alternate wetting and drying technique

Why in the news?

According to a Food and Agriculture Organisation report 2023, **rice paddies contribute 8% of all human-made methane** in the atmosphere. The Vietnam farmers are reducing methane emissions by **employing alternate wetting and drying technique** to grow rice.

About Alternate wetting and drying (AWD)

The alternate wetting and drying (AWD) technique



Source: Researchgate

1. Alternate wetting and drying (AWD) is a **water-saving technology** that lowland (paddy) rice farmers can apply **to reduce their water usage in irrigated fields**.

2. In AWD, irrigation water is applied **to flood the field a certain number of days** after the disappearance of ponded water.

Hence, the field is **alternately flooded and dried**.

3. The number of days of non-flooded soil in AWD between irrigations **can vary from 1 day to more than 10 days** depending on the soil type.

4. They also **employ large drones to spray organic fertilizer** onto the knee-high rice seedlings below.

Benefits of Alternate wetting and drying (AWD)



Source: Fox news

1. It **produce less methane** and thus **environment friendly**.
2. Using the drone to fertilize the crops **saves on labour costs**.
3. It also guarantees **the precise application of fertilizers**. Excessive amounts can lead to the release of nitrogen gases from the soil, **contributing to Earth-warming effects**.

Kalesar Wildlife Sanctuary

Why in the News?

The Supreme Court stayed the construction of four proposed dams inside Kalesar Wildlife Sanctuary in Haryana.

About Kalesar Wildlife Sanctuary

Aspect	Details
Location	<ol style="list-style-type: none"> 1. It is situated within the Yamunanagar District of Haryana, nestled in the foothills of the Shiwalik ranges of the Himalayas. 2. Rajaji National Park, situated in Uttarakhand, is located to the northeast of this park. 3. Simbalbara National Park located in the Shivalik Hills, lies to the north, sharing a border with Himachal Pradesh. Morni Hills can be found to the west.
Unique features	<ol style="list-style-type: none"> 1. The terrain ranges from plains to hills, reaching elevations of up to 700 meters, with narrow valleys known as "kholis" scattered between the hills. 2. These valleys contain seasonal rivulets, referred to as "soats," which typically remain dry for the majority of the year. 3. Within the sanctuary stands the Kalesar Fort, believed to have been constructed during the reign of the Mughal emperor Aurangzeb. 4. The park is renowned for its Dak bungalows, colonial-era administrative architectural structures.
Status	It was declared as a national Park in 2003 .
River flowing through	River Yamuna lies to its east.
Flora	<ol style="list-style-type: none"> 1. The majority of the forest is densely populated with tall sal trees. 2. Other trees that are found in the forest are Semul, Bahera, Amaltas, Shisham, Khair, Sain, Chhal and Jhingan.
Fauna	It is home to many threatened animals like leopards, Ghoral, Barking deer, Sambar, Chital, Python, King Cobra, Monitor lizard etc.

Decreasing trend in solar radiation for electricity in India

Why in the News?

A recent study conducted by the India Meteorological Department (IMD) in Pune has warned of a “decreasing trend” in solar radiation available for electricity conversion in several locations in India.

Findings of the study



Figure 10. Source: The Hindu

1. A recent analysis reveals that there is an alarming decreasing trend in solar radiation available for cost-effective conversion into electricity using solar panels in various locations across India.

2. **Factors causing a decreasing trend in solar radiation available for conversion into electricity:** The decline is attributed to increased aerosol load and clouding, which are caused by factors such as carbon

emissions, fossil fuel combustion, and dust.

3. **Why aerosol is a causative factor:** The efficiency of solar panels is affected by the sunlight exposure they receive. Aerosols play a role in reducing sunlight's impact by absorbing it and redirecting it away from the Earth's surface. They also contribute to the formation of dense clouds, which further obstruct sunlight.

4. The Solar Photovoltaic (SPV) potential has generally declined across various stations, such as Ahmedabad, Chennai, Goa, Jodhpur, Kolkata, Mumbai, Nagpur, New Delhi, Pune, Shillong, Thiruvananthapuram, and Vishakhapatnam.

5. Although India's largest solar parks are situated in the northwest region, cities in these regions are also experiencing a decrease in SPV potential.

Status of India's installed solar power capacity

1. **Current status of installed solar power capacity:** Currently, India's installed solar power capacity stands at approximately 81 GW. This accounts for around 17% of its total installed electricity.

2. **Target:** The country aims to obtain nearly half of its electricity needs from non-fossil fuel sources by 2030. This would require around 500 GW of power generation.

3. What India is doing to achieve the target:

a) India plans to install at least 40 GW of solar capacity annually from 2021 onwards. India has added about 13 GW in the past five years.

b) The government is expecting the annual addition of solar capacity to range between 25-40 GW in the coming years.

c) Prime Minister Narendra Modi announced a significant initiative to finance rooftop solar installations in at least 1 crore (10 million) households across the nation.

Unclassed Forests in India

Why in the News?

In response to a Supreme Court order, the MoEFCC has uploaded State Expert Committee reports on its website in April. It was done following a PIL challenging the Forest (Conservation) Act Amendment 2023 which raised concerns over the identification of unclassified forests.

About unclassified forests

1. About unclassified forests: The term “**unclassified forests**” refers to forest areas that fall outside the categories of **reserved** and **protected forests**.

2. Unclassified forests are not officially notified: These unclassified forests include both government-owned and privately held lands, as well as community forests. Unlike reserved and protected forests, unclassified forests are **not officially notified**.

Why these unclassified forests have been a point of concern?

1. Legal Safeguard: Traditionally, unclassified forests benefited from legal protection, as per the **T.N. Godavarman Thirumalpad case of 1996**. **This safeguard prevented their use for non-forest purposes.**

2. Forest (Conservation) Act Amendment (FCA) 2023: The FCAA’s amendment in 2023 **endangered the legal shield of unclassified forests** and making them vulnerable to diversion for non-forest activities.

3. Delayed State Expert Committee (SEC) Reports: The SECs were assigned the task of identifying unclassified forests across India. However, **a significant delay of 27 years in submitting these reports left the status of unclassified forests ambiguous.**

4. Ministry of Environment, Forests, and Climate Change (MoEFCC) Assurances: The MoEFCC assured that the **amended FCAA would apply to SEC-identified unclassified forests, aligning with the Godavarman judgment**. However, an RTI inquiry uncovered the lack of necessary reports.

5. Missed Conservation Goals: The **failure to identify and protect unclassified forests represents a lost opportunity to fulfil the objectives** outlined in the Indian Forest Policy, which aims for 33.3% forest cover in plains and 66.6% in hills.

Subject: Polity and nation

Rules regarding star campaigner

Why in the news?

Sunita Kejriwal, wife of Delhi Chief Minister Arvind Kejriwal, was recently appointed as a ‘star campaigner’ by the Aam Aadmi Party (AAP) for its campaign in Gujarat.

About Star campaigner

Description-A star campaigner is a **celebrity vote seeker** in an election for a party. This person can be anyone, a politician or even a film star. However, as per the **RP Act,1951**, these star campaigners have to be members of the political parties that appoint them.

Legal provisions-

1) Section 77 of the Representation of the People Act, 1951 (RP Act) provides for law relating to expenditure incurred by ‘leaders of a political party.

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2) As per the Act, a recognised political party (national or State) can appoint a maximum of **40-star campaigners**, whereas a **registered unrecognised political party** can appoint up to 20.

3) These names must be shared with the Election Commission (EC) and Chief Electoral Officer (CEO) of the States **within 7 days** from the announcement of election dates.

Benefits enjoyed by the political parties-

1) The RP Act states that money spent by “leaders of a political party or star campaigner” for travelling, whether by air or other means, to campaign for their party, doesn’t get included as part of a candidate’s election expenses for that party.

However, this is applicable only if the star campaigners limit themselves to general campaigning for the party.

What are the issues with the star campaigners?

1) The star campaigners of all parties have been guilty of using **inappropriate** and **abusive** words against leaders of other political parties.

2) They have appealed to **caste/communal feelings** of electors and made allegations without evidences.

3) The **Election Commission of India** does not have power to revoke the status of star campaigners.

4) The reported expenses of star campaigners are often **much lower** than what was actually spent because of **inaccurate assessment** of the expenses for the rallies or meetings of these star campaigners.

What should be the way forward?

1) The EC must be empowered to **revoke** the ‘star campaigner’ status of a leader, in case of any serious violation of the **Model Code of Conduct**.

2) The **evaluation** and **division of expenses** for rallies or meetings where star campaigners campaign for specific candidates should be made more robust.

Article 244(A) of the Constitution

Why in the news?

In the **tribal-majority Diphu Lok Sabha constituency in Assam**, candidates representing various political parties have committed to implementing Article 244(A) of the Constitution.

This article seeks to establish an autonomous region, similar to a separate government within the state.

About Article 244(A) of the Constitution

1.Introduction in the constitution- Article 244(A) was introduced by **Twenty-second Amendment Act of 1969**.

2.About 244A- It grants Parliament the authority to **establish an autonomous region within Assam**, potentially encompassing tribal areas such as Karbi Anglong. In this autonomous region, there could be a **separate governing body**- like a Legislature or Council of Ministers, or both.

3.More power as compared to sixth schedule areas- This arrangement represents a significant advancement compared to the existing governance structure outlined in the **Sixth Schedule**. Unlike the councils established under the Sixth Schedule, which have limited authority over law enforcement and financial matters, **Article 244(A) provides for greater autonomy**, particularly in terms of law and order control, to tribal areas.

About Diphu

Factly Compilation April (Fourth Week) 2024

1. Diphu is the **least densely populated among Assam's 14 Lok Sabha constituencies**.
2. It is designated as a reserved constituency for Scheduled Tribes (STs).
3. It encompasses six legislative Assembly segments across three tribal-majority hill districts of Assam: **Karbi Anglong, West Karbi Anglong, and Dima Hasao**.
3. It is governed under the **Sixth Schedule of the Constitution**.
4. These districts are under the jurisdiction of **two autonomous councils: the Karbi Anglong Autonomous Council (KAAC) and the North Cachar Hills Autonomous Council**.
5. The electorate in this constituency comprises diverse communities including the **Karbi (the third largest tribe in the state), Dimasa, Hmar, Kuki, Rengma Naga, Zeme Naga, Bodo, Garo, Assamese, Gorkha, and others**.

Cancellation of nomination papers

Why in news?

The BJP candidate, **Mukesh Dalal**, was declared the winner in the Surat Lok Sabha constituency without even a vote being cast.

This was due to the cancellation of nomination paper of the candidate fielded by the Congress party on account of forged signatures in the nomination papers filed by him and the withdrawal of nominations by other candidates.

About the law for nomination

Criteria for Nomination

1. Section 33 of the Representation of the People Act, 1951 (RP Act) **outlines the criteria for a valid nomination**.
2. According to the RP Act, an **individual above 25 years old** can contest a Lok Sabha election from any constituency in India. The **proposer(s) of the candidate must be elector(s)** from the respective constituency where the nomination is filed.
3. For candidates fielded by recognized parties (national or State), **one proposer is required**. However, candidates from unrecognized parties and independents must be supported by ten proposers.
4. A candidate can submit up to four nomination papers with different sets of proposers, allowing for the acceptance of nomination even if one set of papers has an issue.

Scrutiny and Cancellation of Nomination Papers

1. **Section 36 of the RP Act** details the process for the scrutiny of nomination papers by the Returning Officer (RO). It states that **the RO cannot reject a nomination for a non-substantial defect**.
2. However, it specifies that the discovery of non-genuine signatures of the candidate or proposer is grounds for rejection.

About the legal recourse in case Cancellation of nomination papers:

1. **Article 329(b) of the Constitution**, along with the **Representation of the People Act (RP Act)**, stipulates that electoral matters can only be challenged through an election petition filed before the relevant High Court.

2. One grounds for **such petitions is the improper rejection of nomination papers**. RP Act mandates that High Courts strive to resolve such cases **within six months**.

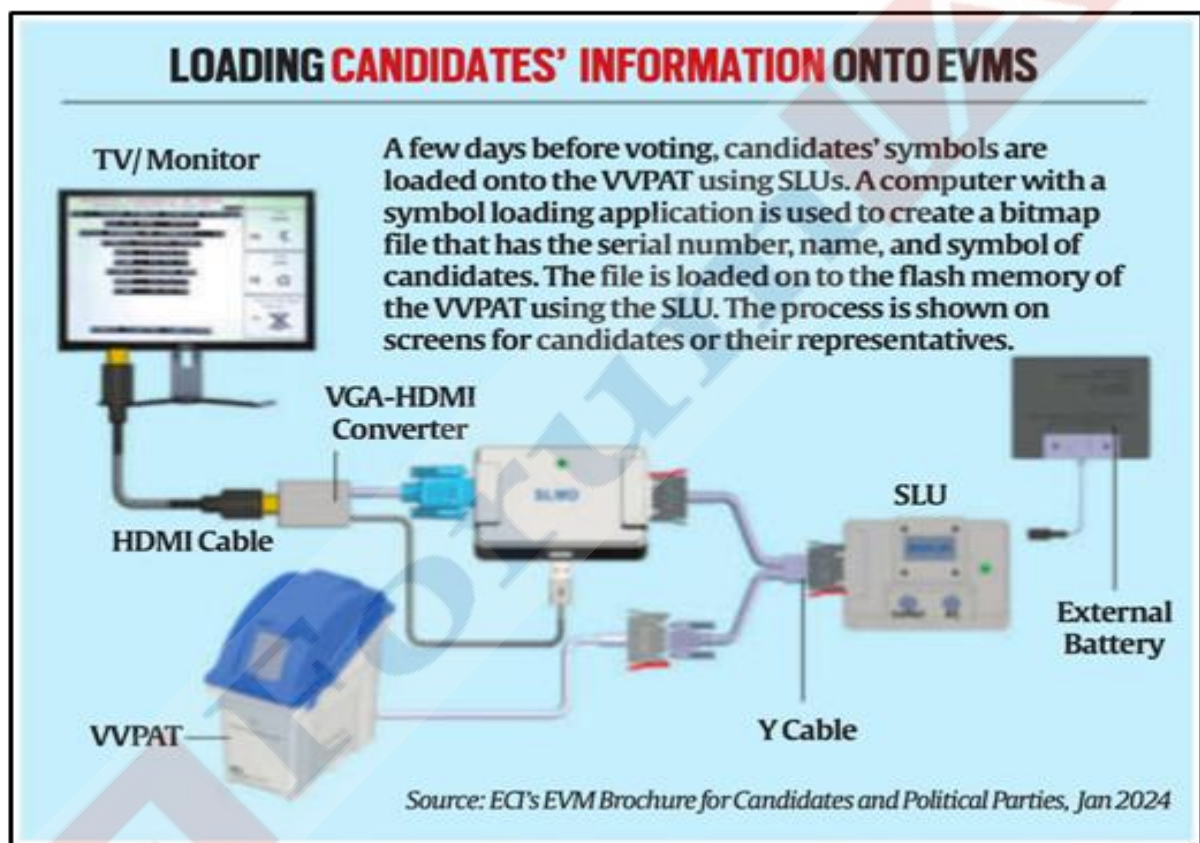
Symbol Loading Unit (SLU)

Why in the News?

Recently, the Supreme Court dismissed a request to verify 100% of Voter Verifiable Paper Audit Trail (VVPAT) slips alongside Electronic Voting Machine (EVM) counts.

Instead, the Court ordered the Election Commission of India (ECI) to secure and store the Symbol Loading Unit (SLU) safely for 45 days following the announcement of the election results.

About Symbol Loading Unit (SLU)



Source: ECI'S EVM Brochure

1. **About SLU:** It is a **matchbox-sized device connected to a laptop or personal computer** to load a bitmap file containing the candidates' names, serial numbers, and symbols.

It is **then connected to the VVPAT to transfer that file onto the paper audit machine** under the **supervision of a district election officer**.

2. **When they were introduced:** Symbol Loading Units (SLUs) were **introduced alongside Voter-Verified Paper Audit Trails (VVPATs)** about a decade ago.

3. **Significance:**

a) VVPATs **enable voters to confirm their vote choice by printing a slip** with the party symbol they selected.

b) It actively loads candidate symbols and information onto VVPAT and ballot units, ensuring accurate representation during the voting process.

4. At which point in the election process are SLUs used:

a) SLUs are involved in the election process approximately a few days before polling commences at a specific seat. This occurs when EVMs are being commissioned, and the order of contesting candidates is finalized.

b) Candidate-setting can take place between five to two days before the voting.

c) Once this process is completed under the supervision of the district election officer, the SLU becomes irrelevant to the actual voting procedure.

What happens to an SLU after symbols are loaded?

1. A limited number of Symbol Loading Units (SLUs) are utilized to load symbols onto VVPATs for each seat during multi-phase elections. It takes approximately 2 to 3 minutes for an SLU to complete this task.

2. SLUs are then given to the district election officers for safekeeping until the day after voting.

3. During this period, the SLUs are returned to the engineers. They use the SLUs to load symbols onto VVPATs for other seats in subsequent phases of the election.

4. In the subsequent phases of a multi-phase election, an SLU is usually utilized again after completing one phase of polling. Its main task involves loading symbols onto VVPATs intended for various seats.

Election Commission powers against disruption of normal polling process

Why in the News?

Under Sections 58(2) and 58A (2) of the Representation of People Act, 1951 (RPA), the Election Commission of India (EC) invalidated the polls held on April 19 in 11 polling stations in Manipur and 8 polling stations in Arunachal Pradesh.

When Election Commission can use its powers against disruption of normal polling process?

1. Intentional Destruction of EVMs: Section 58 of the Representation of the People Act (RPA) empowers the EC to conduct fresh polls if intentional destruction occurs.

The process involves immediate notification by the Returning Officer (RO) to the EC and Chief Electoral Officer, followed by a formal declaration of void poll and scheduling of a new one.

Contesting candidates are duly informed, and voters participate with fresh inked marks to distinguish from the original poll.

2. Booth-Capturing: Section 135A of the RPA defines booth capturing, punishable under law. Section 58A allows for immediate action by the Presiding Officer, closing of EVMs and notifying the RO, who then informs the EC.

The EC may void the poll at the affected station or countermand the entire constituency's election, depending on the severity.

3. Natural Disaster and Disruption: Section 57(1) of the RPA enables the Presiding Officer to adjourn polling due to various disruptions. EC approval is required for resumption. Only remaining voters are eligible to cast their votes upon resumption.

4. Death of a Candidate: Section 52 of the RPA addresses the adjournment of polls due to the death of a recognized party's candidate. If the candidate passes away after a specified time, the RO informs the EC, postponing the poll. The EC then requests the party to nominate a replacement within seven days. The candidate list is updated accordingly.

Schengen visas

Why in the news?

EU has eased norms to offer Indians multiple entry Schengen visa with longer validity. Indian nationals can now be issued **long-term, multi-entry Schengen visas** valid for **two years** after having obtained and used two visas in the past three years

About Schengen visas

1. It is an official document **necessary for non-Europeans** to **travel to all the 29 countries** which are part of the Schengen area.

Note: The Schengen area **consists of 29 European countries** of which **25 are EU states** (Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Germany, Estonia, Greece, Spain, France, Italy, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland and Sweden, along with Iceland, Liechtenstein, Norway and Switzerland).

2. Schengen visas **permits holders to freely move within the Schengen zone for short visits**, capped at 90 days within any period of 180 days.

3. These visas **do not authorize employment**.

Significance of New Visa Multiple Entry Visa System

1. The **new visa system** will facilitate **easier access for Indian nationals to multi-year visas**. This will be available to all those with a proven travel history and provided their passport's validity permits.

2. This measure was adopted within the **framework of the EU-India Common Agenda on Migration and Mobility**. This aims to broaden the **collaboration on migration policies between the EU and India**.

3. It emphasizes the enhancement of people-to-people connections in light of India's significance as an EU partner.

Subject: Schemes/Programme in news

Rashtriya Arogya Nidhi (RAN) scheme

Why in the news?

Recently, the Delhi High Court has held that the new threshold income to claim benefit under the Rashtriya Arogya Nidhi (RAN) scheme is prima facie "**extremely low**".

Under the new umbrella scheme of RAN, the threshold of monthly income for obtaining benefit is **₹1,571 for rural areas** and **Rs 1,605 for urban areas**. The court is of prima facie view that the threshold limit is extremely low.

About Rashtriya Arogya Nidhi (RAN) scheme

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Aspects	Description
About	<ol style="list-style-type: none">1. It is provided by the Ministry of Health and Family Welfare.2. It provides one-time financial assistance to poor patients living below State/UT wise threshold poverty line and suffering from life threatening diseases relating to heart, kidney, liver, cancer, etc. for treatment at any of Super Specialty Government hospitals/institutes.
Scheme type	Central sector scheme
Components	<p>The Umbrella Scheme of RAN includes three key components as follows:</p> <ol style="list-style-type: none">1. Rashtriya Arogya Nidhi (RAN): It offers up to 15 lakhs in financial aid for treating critical illnesses related to the heart, kidney, liver etc, at government hospitals or institutions with super specialty services.2. Health Minister's Cancer Patient Fund (HMCPF): It provides financial assistance up to 15 lakhs for cancer treatment at Regional Cancer Centres (RCCs), Tertiary Care Cancer Centres (TCCCc), and State Cancer Institutes (SCIs).3. Financial Assistance for Patients with Rare Diseases: It allocates up to 20 lakhs for treatment of specified rare diseases at government hospitals or institutes equipped with super specialty facilities.