UPSC Daily Current Affairs| Prelim Bits 21-05-2025

New OCI Portal & OCI Scheme

***Prelims**: Indian Polity and Governance | Public Policy & Rights Issues | Current events of national and international importance*

Why in news?

Recently, India has launched the new OCI Portal with an updated user interface to simplify the registration process for overseas citizens.

- **Existing OCI Services portal** – It was *developed in 2013.*
- It is currently operational in over 180 Indian missions as well as 12 Foreigners Regional Registration Offices (FRROs), processing approximately 2,000 applications per day.
- **New OCI portal** – https://ociservices.gov.in/
- It aims to address existing limitations and enhance user experience.
- It will provide *enhanced functionality, advanced security, and a user-friendly experience*.
- It covers more than ***5 million OCI cardholders*** and new users.
- It can ensure that Indian-origin residents face no inconvenience when visiting or staying in India.

OCI scheme

- It was introduced through an amendment to the Citizenship Act, 1955, in 2005.
- **Aim** – To provide for the *registration of Persons of Indian Origin as Overseas Citizens of India.*
- **Eligibility for a foreign national**
  - Who was a citizen of India at the time of, or at any time after 26th January, 1950; or
  - Who was eligible to become a citizen of India on 26th January, 1950; or
  - Who belonged to a territory that became part of India after 15th August, 1947; or
  - Who is a child or a grandchild or a great grandchild of such a citizen; or
  - Who is a minor child of such persons mentioned above; or
  - Who is a minor child and whose both parents are citizens of India or one of the parents is a citizen of India
- **Eligibility for spouse** - Spouse of foreign origin of a citizen of India or spouse of foreign origin of an OCI Cardholder and whose marriage has been registered and subsisted for a continuous period of *not less than 2 years* immediately preceding the presentation of the application.
- **Non-eligible** – Individuals who *are or had been citizens of Pakistan or Bangladesh,* or

whose parent or grandparent or great grandparent are or had been citizens of those 2 countries.
- Foreign nationals cannot apply for OCI in India while on Tourist Visa, Missionary Visa and Mountaineering Visa.

*Moreover, the foreigner has to be ordinarily resident of India to be eligible to apply for OCI registration in India. '**Ordinarily resident**' will mean a person staying in a particular country or in India for a continuous period of 6 months.*

References

1. The Hindu| Lauch of New OCI Portal
2. OCIServices| Overseas Citizens of India

OpenAI's Data Residency

***Prelims**: Current events of national and international importance*

Why in News?

Recently, ChatGPT-maker OpenAI has launched data residency in some Asian countries, enabling these regions to store data locally.

- **Local data residency** – It refers to the practice of ***storing and processing data within a specific geographic region*****,** often the country or region where the data originated or where the data subjects reside.
- It enhances the data control by the organisations and businesses.
- Data residency builds on OpenAI's existing enterprise-grade data privacy, security, and compliance features.
- **Covered countries** – ***India***, Japan, Singapore and South Korea,
- **Covered products** - ChatGPT Enterprise, ChatGPT Edu, and the API users.

ChatGPT Enterprise	A *customised version of ChatGPT*, for businesses, offering security, privacy, & management features.
ChatGPT Edu	It is *built for universities* to deploy AI to campus operations and assist students, faculty and researchers with artificial intelligence.
OpenAI API	It is a set of tools that *allows developers to access and use OpenAI's models* within their own applications by integrating advanced AI capabilities like text generation and natural language processing in their projects.

- It could allow financial institutions to deploy Al for use cases like payment processing while remaining compliant with existing requirements that require payment data to be stored locally.
- **Significance for India** – It will help Indian users *meet local data sovereignty*

requirements while using OpenAI products.
- It allows ***data at rest'*** such as *prompts, Uploaded files, and chat interactions* to be stored within India.
- As Reserve Bank of India does permit transient cross-border processing under certain conditions, if this is implemented thoughtfully, concerns about data in motion could also be addressed.
- **Challenges** – Although it is a step towards compliance, it has *fallen short of complete data sovereign*.
- The architecture stores data 'at rest' locally, but not necessarily 'in transit' or during model inference, thus that *data may still leave the country*, exposing enterprises to regulatory scrutiny.
- OpenAl has not announced local hosting of its GPT models or inference engines in India.

India has grown to be the 2nd largest market for OpenAI, and the number of users in the country tripled by 2024.

References

1. The Economic Times| Impact of OpenAI's Data Residency on India
2. Business Standard| OpenAI's Local Data Residency

Mixed Green Manure Cropping

***Prelims**: Economic and Social Development – Sustainable Development| Current events of national and international importance*

Why in news?

Recently The National Seeds Corporation (NSC) has introduced two mixed green manure kits to promote mixed green manure cropping.

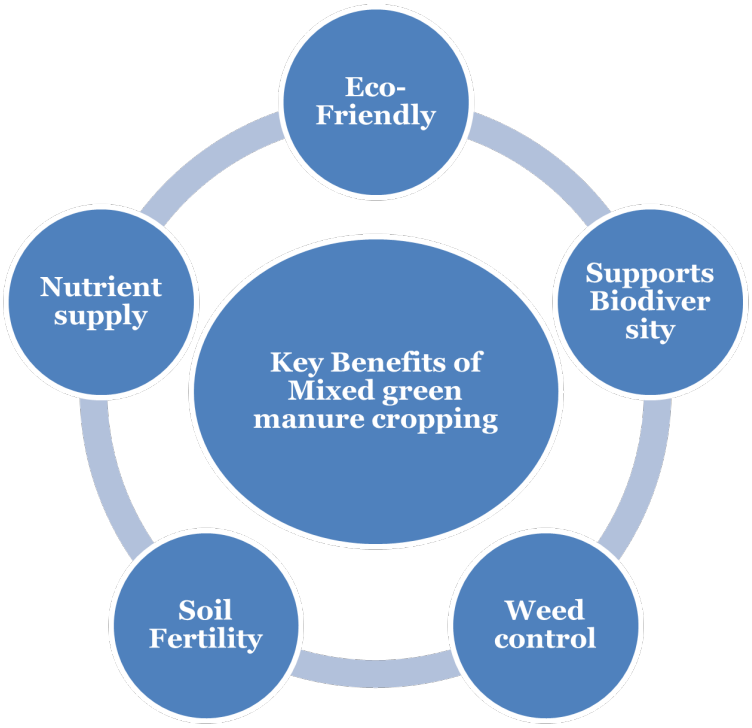
National Seeds Corporation (NSC) is established in 1963, is engaged in the production and distribution of certified seeds to enhance agricultural productivity and ensure food security.

- **Green Manure –** It refers to crops specifically grown to be *incorporated back into the soil* rather than harvested.
- These crops *decompose in the field*, enriching the soil with organic matter and essential nutrients.
- **Mixed green manure cropping** – It involves cultivation of multiple green manure crop species with complementary characteristics together and incorporated back into soil to enrich the soil.
- It is a dynamic, multifaceted approach that significantly ***improves soil fertility and***

long-term farm sustainability.

- It aligns with *National Mission on Sustainable Agriculture (NMSA).*
- The most important green manure crops are,
    - Sunnhemp
    - Dhaincha
    - Pillipesara
    - Clusterbeans
    - Sesbania rostrata

Key Benefits



- **Nutrient supply** – It *enhances soil nitrogen* through ***legumes*** and improves *organic matter and micronutrient* availability.
- **Soil fertility –** Deep roots species such as *Dhaincha and Sunhamp* ***loosen compact layers***.
- Fibrous roots species such as *cowpea and sorghum* improve ***aeration and moisture retention***.
- **Weed control -** Allelopathic crops inhibit weed seed germination and dense canopy suppresses weed growth naturally.

Allelopathy is a phenomenon where one plant releases chemicals that affect the growth of other plants nearby. These chemicals, called allelochemicals, can inhibit germination, suppress growth.

- **Supports Biodiversity –** It encourages beneficial insects and pollinators.
- It also enhances ***microbial diversity and soil food web stability.***
- **Eco-Friendly –** It reduces dependency on chemical fertilizers and herbicides and supports agroecological sustainability.

Reference

DD News| Mixed green manure cropping

Public Safety Act (PSA)

***Prelims**: Indian Polity and Governance | Public Policy | Current events of national and international importance*

Why in news?

Recently, Jammu and Kashmir Police invoked the PSA against 23 individuals in Srinagar city who were characterized as "subversive and criminal elements inimical to the security and public order of the nation."

- **Public Safety Act** – It was introduced in **1978** by the then J&K Legislature.
- **Purpose** – To detain individuals considered a threat to the ***security of the state*** *or* ***public order***.
- It is a ***preventive detention law***, allowing authorities to detain individuals *without trial*.

Key aspects of Public Safety Act

- **Broder scope –** Section 8 allows detention for ***actions deemed prejudicial to public order or state security***.
- The *District Magistrate (DM) or Divisional Commissioner* is empowered to make detention decisions, based on police/intelligence reports.
- **Maximum detention period** - ***Up to 2 years*** for threats to national/state security and ***up to 1 year*** for threats to public order.
- **No formal charges needed** – Detainees can be held without FIR, without trial, and without disclosure of evidence.
- **No Bail or Legal Representation** - Detainees cannot apply for bail or appoint a lawyer, leaving them with limited legal remedies under the Act.
- **Limited judicial review** – Courts can review PSA detentions only on procedural grounds, not on the merit of allegations.

Several human rights groups, such as Amnesty International, have termed the PSA as arbitrary and prone to abuse.

Reference

The Indian Express| Jammu and Kashmir Police invoked the PSA

Multi Agency Centre (MAC)

***Prelims**: Indian Polity and Governance | Current events of national and international importance*

***Mains**: (GS III) Internal Security| Counter-terrorism architecture*

Why in news?

Recently Home Minister inaugurated the revamped Multi Agency Centre (MAC) at a cost of Rs 500 crore.

- **Multi Agency Centre (MAC) –** It is a *common counter-terrorism grid* under the Intelligence Bureau (IB).
- **Headquarters** – New Delhi
- Subsidiary Multi-Agency Centers (SMACs) are formed in state capitals.
- It was conceptualized in 2001 following the Kargil War.
- It includes all organisations involved in counter-terrorism efforts to ensure coordination in counter terrorism.
- It includes ***28 such organization*** including,
    - Research and Analysis Wing (RAW)
    - Armed forces
    - State police forces
- **Functions** – It provides a platform for sharing real-time intelligence inputs among security agencies.
- Daily meetings are held to analyse inputs received in the previous 24 hours.
- It addresses complex national security challenges including,
    - Terrorism
    - Extremism
    - Organized crime
    - Cyber attacks

*According to a 2020 parliamentary standing committee report, state agencies have been reluctant to share information on the platform as the c*ontribution from state agencies has been lower in overall inputs received at MAC.

Revamped MAC

- **Expanded network coverage** – MAC is expanded to *all police districts throughout India* through a secured network.
- **Technological upgrades** – It has been upgraded with cutting-edge technologies such as,
    - Artificial Intelligence
    - Machine Learning techniques
    - Geographic Information System (GIS)
- It enables accurate trend analysis, hotspot mapping, timeline analysis and predictive operational outcomes.
- **Emphasis on coordination –** Improved coordination and synergy between central

and state security agencies to share more intelligence inputs through the MAC system.
- Integration of Central agencies databases to leverage the advanced data analytics capabilities.

Reference

The Hindu| Multi Agency Centre (MAC)

One Liners 21-05-2025

History, Art and Culture

Shirui Lily Festival 2025: A Celebration of Nature and Culture

Manipur's 5th State-Level Shirui Lily Festival unfolds from May 20-24, 2025, in Ukhrul, marking 75 years since the rare Shirui Lily's discovery.

• **Significant** -Returning after a hiatus, the festival promotes responsible tourism and global awareness for the endangered lily's conservation.

• **A Floral and Cultural Extravaganza** - The event blends Tangkhul Naga traditions, music (SHIROCK), indigenous games, and modern entertainment.

• **Adventure and Cultural Highlights** - Attendees can enjoy trekking, biking, the Shirui Lily Grand Prix, a literature festival, a beauty pageant, and culinary and textile showcases.

• **Locations** - The festival spans Shirui Village (opening), TNL Ground, Phangrei, and Bakshi Ground (closing).

• **Ukhrul -A Prime Destination** - The festival boosts tourism to Ukhrul, showcasing its beauty and the Tangkhul Naga culture, with enhanced travel accessibility.

Geography

Madku Island: A Hidden Gem

Nestled in Chhattisgarh's Bilaspur district on the Shivnath River, Madku Island boasts natural beauty and historical significance.

• **Mythological Confluence -** Revered as Harihara-Kshetra and Kedar Dweep, it's believed to be the meeting point of Lord Vishnu and Lord Shiva, also linked to Sage Mandukya.

• **Archaeological Treasures -** Excavations revealed 11th-century Kalachuri temples, sculptures, and Brahmi/Shankhalipi inscriptions. Twenty rebuilt temples house various deities.

• **Ancient Habitation -** Stone Age tools near the island indicate very early human presence. Sandstone temple remnants and idols are still visible.

• **Cultural Harmony -** The annual Masihi Mela, a Christian fair since 1909, celebrates Hindu-Christian unity on the island.

• **Literary Connection -** American missionary George E. Miller documented island life in his novel, "Prem Masih of Damoh."

New Caledonia Political Talks Stall

Negotiations regarding New Caledonia's future status collapsed on May 8, 2025, due to loyalist rejection of France's "sovereignty in partnership" proposal.

• **Southwestern Pacific Location** - Situated 1,500 km east of Australia, New Caledonia's capital is Nouméa, bordered by Australia, Vanuatu, and Fiji.
• **French Overseas Collectivity** - While administratively linked to France, New Caledonia enjoys substantial autonomy.
• **Historical Path to Self-Determination** - Colonized by France in 1853, Kanak resistance in the 1980s led to the 1998 Nouméa Accord and three independence referendums (all rejected).
• **Diverse Geography and Climate** - The main island, Grande Terre, features rugged terrain and the UNESCO-listed New Caledonian Barrier Reef. Its subtropical climate varies from wet east to drier west.
• **Unique Biodiversity** - The territory is home to the ancient Amborella trichopoda and endemic birds like the kagu, despite lacking native mammals and frogs.

Indrayani River: Illegal Structures Demolished

The Pimpri-Chinchwad Municipal Corporation (PCMC) recently demolished 36 illegal bungalows in the River Villa project, situated within the Indrayani River's blue flood line in Chikhali.

• **Origin and Course** - The Indrayani, a 103.5 km long rain-fed river in Maharashtra, originates in the Western Ghats near Lonavala and flows through Pune district before merging with the Bhima River at Tulapur.
• **Tributary of Bhima-Krishna System** - It is a significant tributary of the Bhima River, which itself is a major tributary of the Krishna River, forming part of a larger river network.
• **Religious Significance** - The sacred towns of Alandi and Dehu, important pilgrimage sites for poet saints Dnyaneshwar and Tukaram respectively, are located on its banks.
• **Industrial and Agricultural Role** - The river flows through the industrial town of Pimpri-Chinchwad, serving purposes of irrigation and supporting local agriculture.
• **Hydroelectric Power Generation** - The Valvan Dam at Kamshet, built on the Indrayani River, functions as a hydroelectric power generating station.

Polity & Governance

Sikkim Celebrates 50 Years of Statehood

India's PM lauded Sikkim on its golden jubilee, marking its 1975 integration.

• **Strategic Himalayan Location -** Nestled in Northeast India, Sikkim borders Nepal, Bhutan, and China, with West Bengal to its south. Its capital is Gangtok.
• **Journey to Statehood -** Formerly ruled by the Namgyal dynasty and a British/Indian protectorate, Sikkim became India's 22nd state via a 1975 referendum.
• **Pioneering Organic State -** Sikkim stands as India's first fully organic state, championing sustainable agriculture practices.
• **Ecological and Cultural Wealth -** Part of the Eastern Himalayas, it's a biodiversity hotspot rich in flora and fauna, with a vibrant blend of Lepcha, Bhutia, and Nepali cultures and Buddhist traditions.
• **Strategic and Sustainable Focus -** Sikkim holds strategic geopolitical importance and emphasizes eco-tourism, clean energy, and heritage conservation.

International Relations and Issues

Operation Gideon Chariots Launched in Gaza

Israel has initiated Operation Gideon Chariots, a significant military offensive in the Gaza Strip.

• **Objective -** Is to secure the release of Israeli hostages held by Hamas, coupled with intensified military pressure to weaken Hamas's capabilities.

• **Trigger -** The operation follows the collapse of ceasefire negotiations in Doha, signaling a renewed escalation of the conflict.

• **Impact and Affected Areas -** Northern Gaza, notably the Jabaliya refugee camp, has experienced heavy bombardment.

• **Casualty Reports -** Tragically, over 150 deaths were reported in Gaza within 24 hours, with more than 3,000 fatalities since the March escalation.

Economy

GeM Celebrates 8 Years of Transforming Public Procurement

India's Government e Marketplace (GeM) commemorated its 8th Incorporation Day, reaffirming its pivotal role in fostering inclusive economic growth and advancing digital governance.

• **Inclusive Innovation –** It will Simplify the process and empowering entrepreneurs, creating an accessible and equitable marketplace for diverse sellers.

• **Impressive Growth and Cost Efficiency -** GeM has witnessed a threefold increase in users, with over 1.64 lakh buyers and 4.2 lakh sellers. Independent assessments indicate nearly 10% cost savings in government procurement.

• **Empowering Small and Marginalized Sellers**

• The platform actively supports over 10 lakh MSEs, artisans, women entrepreneurs, and startups, ensuring broad participation in public procurement.

• **Reduced Transaction Costs -** Nearly all transactions are now free of charges, and fees have been significantly reduced. Advanced analytics ensure transparency and fraud detection.

• **Driving National Initiatives -** GeM has facilitated crucial procurements and launched GeMAI, India's first generative AI chatbot in the public sector, enhancing user support in multiple languages.

Science

Spectacular "Bird-Wing" Solar Eruption

A massive and visually striking solar flare, dubbed the "bird-wing" eruption due to its plasma shape, has been observed on the Sun's northern hemisphere.

• **Million-Kilometer Plasma Ejection -** NASA satellites recorded the event, revealing a plasma stream extending over 1 million km, twice the Earth-Moon distance.

• **Combined Flare and CME -** The eruption involved both an intense solar flare (electromagnetic radiation burst) and a significant coronal mass ejection (CME) of charged plasma.

• **Immediate Radio Blackouts -** The initial radiation from the flare has already caused radio communication blackouts across parts of Asia, Africa, Europe, and the Americas.

• **Anticipated Geomagnetic Storm -** The approaching CME, traveling at 250–3000 km/s, is expected to trigger geomagnetic storms upon Earth's arrival in 1-3 days.

• **Potential Earth Impacts -** Geomagnetic storms can disrupt satellites, GPS, radio, and power grids, while also potentially enhancing auroras at lower latitudes. Space weather agencies are on high alert.

A-to-I mRNA Editing in Animals

Chinese researchers highlight the evolutionary mystery surrounding the widespread presence of A-to-I mRNA editing in the animal kingdom.

• **The A-to-I Editing Mechanism -** This process involves the enzymatic conversion of adenosine (A) to inosine (I) within messenger RNA (mRNA) by ADAR proteins. Ribosomes interpret inosine as guanine (G).

• **Consequences for Protein Diversity -** A-to-I editing modifies the mRNA sequence after transcription, leading to the production of proteins with potentially altered amino acid sequences, stability, or activity.

• **Risk of Stop Codon Misinterpretation -** A significant concern is the editing of stop codons (e.g., UAG), which could be misread, resulting in the synthesis of abnormally long and potentially dysfunctional proteins.

• **Essential Genes with Premature Stops (PSC) -** Studies in *F. graminearum* identified 71 PSC genes containing premature stop codons in their unedited mRNA transcripts.

PSLV-C61 Mission Failure

ISRO's PSLV-C61 mission to deploy EOS-09 into a Sun-synchronous orbit from Sriharikota unfortunately failed due to a third-stage malfunction.

• **Polar Satellite Launch Vehicle (PSLV)** - Is ISRO's four-stage rocket, primarily designed for Earth observation satellites in Sun-synchronous polar orbits (SSPOs).

• **Four-Stage Design** - PSLV employs alternating solid and liquid propulsion stages for precise medium-weight payload delivery to various orbits.

• **First and Second Stages** - The first stage uses Hydroxyl-Terminated Polybutadiene (HTPB) solid propellant with optional strap-on boosters, while the second stage utilizes the Vikas engine with UDMH/N_2O_4 liquid fuel.

• **Third and Fourth Stages** - The third stage is a solid HTPB propellant engine, and the final fourth stage has two liquid engines burning Monomethylhydrazine (MMH) and Mixed Oxides of Nitrogen (MON).

• **SSPO for Earth Observation** - Sun-synchronous polar orbits are ideal for Earth observation missions, which are the primary targets for PSLV launches.

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