Prelim Bits 16-05-2024 | UPSC Daily Current Affairs

Deda Method

The internally displaced tribal families in Godavari Valley continue to practice the 'deda' method to preserve seeds.

- It is a traditional, *eco-friendly*, fool proof *seed preservation method*.
- **Prepared by** – ***Muria tribes***, also known as Gutti koyas.
- **Preservation** – The seeds are preserved in leaves and packed *almost airtight* to look like boulders from a distance.
- The packaged seeds are, in turn, *woven with Siali leaf* (Bauhinia vahlii), which is locally known as 'addakulu' to make the deda.
- **Multi-layer protection** - A deda has ***3 layers***.
- In the first layer, *wood ash* is spread inside the Siali leaves.
- Later, the ash is covered with *lemon leaves* to form a casing, and, lastly, the seeds are preserved inside the casing and sealed.
- **Shelf life** – The stored seeds can be used for cultivation for ***up to 5 years*** but these tribes prefer to preserve them for up to 3 years.
- **Crops preserved** – Seeds of *pulses* like the green gram, red gram, black gram, beans and seeds of *other food crops*.
- **Significance** – It guarantees *protection of seed from pests and worms.*

> *Internally displaced Muria Tribes from Chhattisgarh settled along the banks of the Godavari and Sabari rivers in the Godavari valley in Andhra Pradesh and Telangana whose habitations are known as habitations of the Internal Displaced People (IDP).*

Reference

The Hindu| Muria tribes follows 'Deda method' for seed preservation

GPT-40

The new flagship model GPT-4O was launched.

- **Released by** – ***OpenAI***
- **Aim** – To *accept audio and visual inputs* in addition text and to generate output almost flawlessly.

The 'o' in GPT-4o stands for "omni", which means it can receive multimodal inputs through text, audio, and image. ChatGPT still receives text input to provide output.

- **Mechanism** – It works by *clubbing 3 models*: turning the user's voice into text, carrying out operations, and returning an audio-based result.
- **Response time** – 232 milliseconds for audio input, while its average response time is *320 milliseconds*.
- It uses the usual fillers, or sometimes repeats part of the question to cover for this latency.
- **Response voice** – In most of the demo clips shared, the voice *sounded female*.
- Unlike more basic iterations they were expressive, friendly, and even affectionate, *sounding more like a friend or someone closer* rather than a machine-generated voice.
- **Activities** – It can do a range of activities like
    - Turning a picture of a man into a caricature.
    - Creating and manipulating a 3D logo
    - Generating meeting notes based on an audio recording
    - Designing a cartoon character, and even make a stylised movie poster with real people's photos.
    - Assisting a child in solving a math problem by setting a game
    - Assessing the readiness of user for interview
- **Advantages** – *2 times faster*, *half the price*, and has 5 times higher rate limits compared to GPT-4 Turbo.

OpenAI claims it to beat existing rivals such as Claude 3 Opus and Gemini Ultra 1.0, as well as its own GPT-4 offering, in several areas across text evaluation and vision understanding evaluations.

- **Safety** – It has safety built-in by design across modalities, through techniques such as filtering training data and refining the model's behaviour through post-training.
- It has new safety systems to provide *guardrails on voice outputs*.
- **Challenges** – It has *omitted the capacity of generating a video* like trailer and had also *made some slip-ups and errors* when demonstrating its abilities
    - **Example**: While converting 2 portraits into a crime movie-style poster, it initially produced gibberish instead of text.

References

1. The Hindu| Launch of GPT-4O
2. OpenAI| Features of GPT-4O

Igla-S

Army set to receive Igla-S air defence systems partly assembled in India.

- It is a ***Man-portable air defence missile system*** (MANPADS), which is known in the West as *SA-24 Grinch*.

Air Defence (AD) functions in 3 levels, gun/missile system, medium range and high range. AD Gun Missile system and AD self-propelled guns are the 2 types of AD guns.

- **Developed by** – ***Russia***
- **Upgradation** – It is an advanced version of the Igla MANPADS.
- In combat effectiveness, it exceeds the Igla from 2 to 5 times, especially when firing at cruise missiles and pinpoint targets.
- **Features** – It has a *combat equipment, maintenance equipment, training facilities & night firing devices* and this can be fired by an individual or crew to bring down an enemy aircraft.
- **Warhead** – It is a high-explosive fragmentation (HE-FRAG) and weighs 2.5 kg.
- It is heavier and more powerful, to maximize damage capabilities, as well as contact and timed fuzes for increased attack range.
- Guidance is homing via infrared.
- **Range** – Very short range air defence system (VSHORAD)

A VSHORAD *is the soldier's last line of defence against enemy combat aircraft, helicopters and UAVs in the multilayered air defence network.*

- **Capacity** – It can engage *all types of visually observable aircraft* and helicopters.
- It can *pinpoint air targets* like cruise missiles and unmanned air vehicles, both head-on and receding, *at any time of day*, against background clutter and decoy flares (jamming).
- **Contract with India** – Under the 4th tranche of Emergency Procurement (EP) and are being *assembled by Adani Defence Systems and Technologies Limited (ADSTL)* in India under technology transfer from Rocoboronexport.
- The missile will be imported and some parts like sights, launcher, and the battery will be assembled/ manufactured by Adani defence.

The Indian army is also set to receive its 1st of two ***Israeli Hermes-900*** *Medium Altitude Long Endurance Unmanned Aerial Vehicle (UAV) assembled by ADSTL in Hyderabad.*

References

1. The India| Igla-S, a MANPADS are partly assembled in India
2. Rocoborn| Features of Igla-S

Timeline for Organ Transplants

Centre sets timeline for disposing living donor transplant applications.

> *Organ Donation in India is regulated by the Transplantation of Human Organs and Tissues Act, 1994, and Rules, 2014.*

- **Reason for changes** – In January 2024, *Delhi High Court directed* the Ministry of Health & Family Welfare to prescribe timelines in the process of the *living donor transplant applications*.
- **Timeline** – ***6 to 8 weeks***
- **Direction to Health Secretaries** – To follow the guidelines as mentioned to help in expediting the decision-making process.
- **Direction to Authorisation Committees**
  - To process applications *within 10 days*.
  - To give *1 week time* to the donor or recipient for responding to queries or deficiencies in the documents.
  - To hold *interview within 7 days* of the receipt of all required documents with the donor and recipient.
  - To publish their decision on the hospital's website *in 24 hours*.
- **Appeal response time** – Any appeal under Rule 33 of the Act against the decision of the Authorisation Committee would have to be decided *within a maximum of 30 days*.

> *Authorisation Committees were constituted under the provisions of the Transplantation of Human Organs and Tissues Act, 1994, were told*

- **Mandate e-Aadhaar verification** – For identification of the donor and recipient and is applicable in the case of both near relative and other than near relative living donor.

> *The **non-near relative living donor** can donate only for the reasons of affection and attachment or for any other special reason and that too with the approval of the Authorisation Committee.*

- **Donation from a minor living donor** – It shall not be considered without the prior approval of the Appropriate Authority and the State Government concerned.
- **Restriction order** – *No swap transplant* between a pair of foreigner donor and recipient and a pair of Indian donor and recipient shall be considered by the Authorisation Committee.

Reference

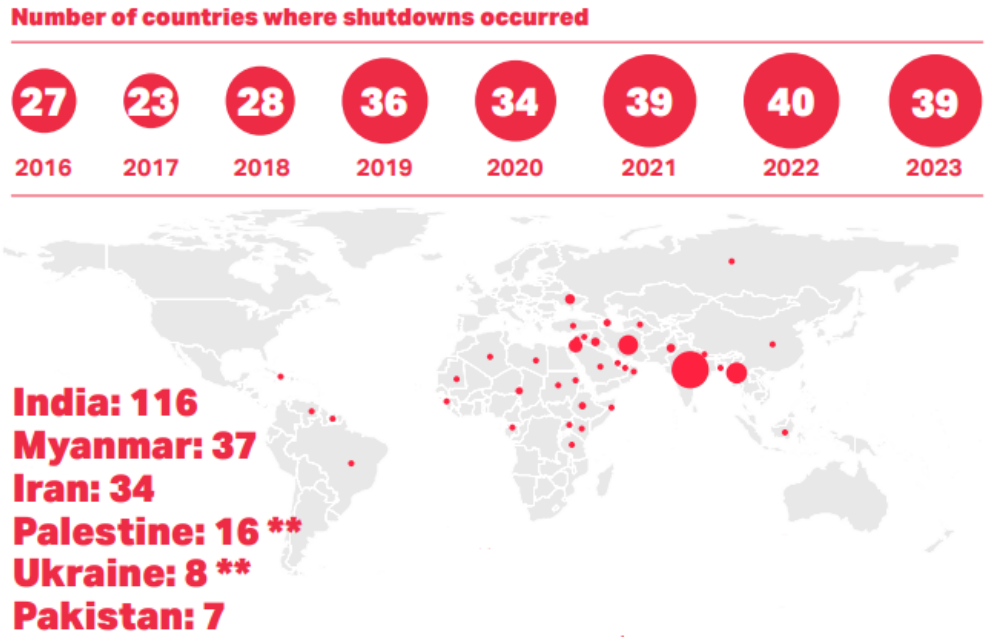
The Hindu| Fixed timeline for living donor transplants.

Internet shutdowns in 2023

According to a new report, India records highest number of Internet shutdowns globally in 2023.

- **Report title** – Shrinking democracy, growing violence: internet shutdowns in 2023.
- **Published by** – ***Access Now***, to keep alive the #KeepItOn campaign.

> ***The #KeepItOn campaign*** *unites and organizes global organizations and efforts to end internet shutdowns. This coalition was started in 2016 and has since increased rapidly to more than 334 members from 106 countries around the world.*



- **Common cause of internet shutdown**
  - **Stated** – National security, public safety and for preventing the spread of misinformation and hate speech.
  - **Actual** – To oppress, silence and control the mass people.



- **India** – The Internet was snapped 116 times in 2023.
- **Causes** – Communal tension, violence, exams, and other reasons.
- **Impact** – A total of *13 States and Union Territories* imposed shutdowns in 2023, where 7 of them disrupted Internet services 5 or more times.

- Shutdowns *spanning over 5 days or more* shot up from 15% of all shutdowns in 2022 to more than 41% in 2023.
- More and more of these shutdown orders are being *applied regionally rather than locally* with 64 shutdown orders affect[ing] more than 1 district in the same State, province, or region.
- There were *47 shutdowns in Manipur* regionally and a *Statewide shutdown in Punjab*.

*2023 is the **6th straight year India has topped** the list of internet shutdowns. Shutdowns in Manipur and Punjab last year led to millions being cut off from the Internet*

- **Concerns** – The publication of Internet shutdown orders as required by guidelines laid down by the Supreme Court was not done consistently.

References

1. The Hindu| India tops with highest internet shutdown in 2023
2. Access Now| Report on Internet Shutdown in 2023

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