

## Current Affairs - 13 October 2024

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### NATIONAL COMMISSION FOR PROTECTION OF CHILD RIGHTS (NCPCR)

- The NCPCR is an Indian **statutory** body established in **2007** under the Commission for Protection of Child Rights Act 2005. It works under the aegis of the Union Ministry of Women and Child Development (**WCD**).
- **Its mandate** is to ensure that **all laws, policies, programs** and administrative systems conform to the vision of the rights of the child (age 0 - 18 years) as enunciated in the **Indian Constitution** as well as the UN Convention on the Rights of the Child (CRC).
  - India has acceded to the CRC in **1992** which is an international treaty that makes it incumbent upon the signatory States to take all necessary steps to protect children's rights enumerated in the Convention.
- The Commission envisages a **rights-based perspective**, which flows into national-state-local policies and programmes, ensuring -
  - Well-being of children,
  - **Strong institution-building processes**,
  - Respect for local bodies and decentralisation at the community level and greater social concern in this direction.

### Functions and Responsibilities of NCPCR:

- **Functions:**
  - **Examine and review** existing safeguards for the protection of child rights and recommend measures for their effective implementation.
  - **Report annually** and at other intervals to the central government on the effectiveness of these safeguards.
  - **Investigate violations** of child rights and recommend legal proceedings in appropriate cases.
  - **Promote research** in the field of child rights.
  - **Raise awareness** of child rights and available safeguards through various means, such as publications, media, and seminars.

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- **Inspect institutions** where children are detained or reside, including juvenile homes, and recommend remedial action if necessary.
- **Investigate complaints** and take suo motu notice of issues related to the deprivation and violation of child rights and the non-implementation of laws protecting and developing children.
- **Responsibilities:**
  - It has been mandated under the **Right of Children to Free and Compulsory Education (RTE) Act 2009** -
    - To examine and review the safeguards of the rights provided under the Act and
    - To recommend measures for its effective implementation.
  - It has been mandated under the **Protection of Children from Sexual Offences (POCSO) Act 2012** -
    - To monitor the designation of Special Courts by State Governments, and
    - To monitor the formulation of the guidelines described in the Act.
  - It has been charged with the monitoring of **Child Care Institutions (CCIs)** under the Juvenile Justice (Care and Protection of Children) Act 2015.
    - It was instructed to carry out a **social audit** of the same by the Supreme Court.

### Way Ahead:

- The NCPCR's recommendations and the subsequent political discourse underscore a critical intersection of education, minority rights, and governance in India.
  - As the debate unfolds, stakeholders emphasise the need for a **balanced approach to ensure quality education for all children while respecting diverse cultural contexts.**
  - To ensure this, the NCPCR called for the **coexistence of both the religious and formal education but not within the same institution.**
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### INDIA HAS ELIMINATED TRACHOMA AS A PUBLIC HEALTH PROBLEM

#### Why in news?

World Health Organisation (WHO) has declared that the Government of India has eliminated Trachoma as a public health problem. With this, India has become the third country in the South-East Asia Region to achieve this milestone.

#### Trachoma

- **Trachoma** is the leading infectious cause of blindness globally.
- It caused by **Chlamydia trachomatis**, and is spread by direct or indirect contact with eye or nose discharges, especially in young children.
- In endemic areas, up to 90% of preschool-aged children can be affected, with infection declining with age.
- **Symptoms**
  - Repeated infections over time can lead to scarring inside the eyelid, causing the eyelashes to rub against the eye (trachomatous trichiasis), which leads to pain, corneal scarring, and ultimately blindness.
  - Women are at higher risk due to frequent contact with infected children.

#### Efforts to eliminate trachoma

- Global efforts to eliminate trachoma are driven by WHO's SAFE strategy, which includes:
  - Surgery for trichiasis,
  - Antibiotics like azithromycin for mass treatment,
  - Facial cleanliness, and
  - Environmental improvements, such as better water and sanitation access.
- WHO adopted the SAFE strategy in 1993 and launched the WHO Alliance for Global Elimination of Trachoma in 1996.

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- The World Health Assembly has set **2030** as the new target date for eliminating trachoma as a public health issue globally.
  - By October 2024, 20 countries had eliminated trachoma as a public health problem.
  - Economic losses from blindness and visual impairment due to trachoma are estimated at \$2.9–5.3 billion annually.

### Why was trachoma such a challenge in India?

- **High Prevalence in Specific States**
  - Trachoma posed a significant challenge in India as it frequently resurfaced in new communities.
  - It was a leading cause of blindness in hyper-endemic regions like Punjab, Rajasthan, Western Uttar Pradesh, and Garhwal (Uttarakhand) between 1971 and 1974, where the prevalence exceeded 50%.
  - These areas were heavily impacted by the disease, making control efforts difficult.
- **Reduction in Trachoma Prevalence**
  - By 2005, trachoma accounted for only 4% of blindness cases in India.
  - A survey conducted in 2006-2007 indicated a significant decline in prevalence, prompting the Indian government to conduct a rapid assessment in hyper-endemic states.

### What does WHO declaring India trachoma-free mean?

- WHO declaring India trachoma-free signifies a major public health achievement, marking an improvement in the country's water, sanitation, and hygiene standards.
  - Trachoma is often linked to poor sanitation, a common issue in developing countries.
  - With its elimination, India has reached "gold-tier" public health status, demonstrating significant progress in addressing these challenges and enhancing overall health conditions.
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### SYNTHETIC MEDICAL IMAGES

The rise of AI-generated synthetic medical images can provide an ethical, scalable, and cost-effective solution to the medical field.



- It is generated by AI or computer algorithms without being captured by traditional imaging devices such as MRI, CT scans, or X-rays.
- These images are entirely constructed using mathematical models or AI techniques like Generative Adversarial Networks (GANs), diffusion models, and autoencoders.
- In the medical field, synthetic medical images are created in a similar way, where the AI generates entirely new medical scans or radiological images that mimic real ones but are not derived from any actual patient data.

How are these images created?

- A Variational Autoencoder (VAE) takes an image, compresses it into a simpler form called the latent space, and then tries to recreate the original image from that compressed version.
- The process continuously improves the image by minimising the difference between the real image and the recreated version.
- GANs involve a generator that creates synthetic images from random data and a discriminator that determines whether the image is real or synthetic.
- Both improve through competition—the generator tries to make its images more realistic, while the discriminator gets better at spotting fakes.
- Diffusion models begin with a bunch of random noise and gradually transform it into a realistic image, using a step-by-step process that slowly shapes the noise into something that resembles the images it was trained on.
- These methods generate synthetic images in various fields, including healthcare and research.

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### Advantages

- Ability to facilitate intra- and inter-modality translation.
  - Intramodality translation: It refers to generating synthetic images within the same type of imaging modality, such as improving or reconstructing MRI scans based on other MRI data.
  - Inter-modality translation: It involves generating synthetic images by translating between different types of imaging modalities, such as creating CT scans from MRI data.
  - Privacy protection: These images are generated without patient data, they circumvent privacy concerns, making it easier for researchers and healthcare providers to share and collaborate on AI development without the risk of violating patient confidentiality.
  - Cost effective: Synthetic medical images also address the time and cost of collecting real medical data.
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### WATER CHESTNUT

Water chestnut, grass-like sedge which grows in the Wulkar Lake is in high demand during autumn in Kashmir.



- It is known as goer in Kashmir, an aquatic vegetable growing in the Wular Lake in Kashmir.
- It is popularly known as Singhara ka atta in India, it grows underwater.
- The plants have extremely sharp spines with barbs that can cause serious injuries if stepped upon.
- It is native to Europe, Asia, and Africa and is also known as water caltrops.
- It is dense with potassium and fiber. It barely contains any sodium or fat, but is high in carbohydrates.





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How it is used?

- The edible kernel, concealed beneath a thick outer layer, is peeled off, dried, and pounded into flour.
  - People also use the sturdy dried outer shells as fuel in the traditional fire pots known as kangri during winter.
  - Water chestnut is eaten in dishes during during Navaratri. It is also easily digestible and provide energy, which is crucial when fasting.
  - When peeled, the chestnut reveals white flesh with a crunchy, juicy texture and a sweet taste.
  - Over the years, dry weather and increasing marshy land around the lake caused a decline in production of water chestnuts and have adversely affected livelihoods.
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### TELE MANAS



**Tele MANAS is now available as a comprehensive mobile platform –  
Tele MANAS App – developed for the public.**

- Tele Mental Health Assistance and Networking Across States (Tele MANAS) was started by the Ministry of Health and Family Welfare 2022.
- It seeks to function as a comprehensive, integrated, and inclusive 24x7 tele-mental health facility.
- It aims to provide free tele-mental health services all over the country round the clock, particularly to people in remote or underserved areas.
- Tele-MANAS will be organised in a two-tier system:
- Tier 1 comprises state Tele-MANAS cells, which include trained counsellors and mental health specialists.
- Tier 2 will comprise specialists at the District Mental Health Programme (DMHP)/Medical College resources for physical consultation and/or e-Sanjeevani for audio-visual consultation.



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- Currently, there are 51 operational Tele-MANAS cells functioning across all 36 States and UTs, offering services in 20 different languages.
- Another feature added to the programme this year is the video consultations facility which will be undertaken by the mental health professionals who are taking audio call escalations to get further information about the caller as part of history taking and clarification.

### Key facts about Tele MANAS App

- It is offered under the National Tele Mental Health Programme of India.
- The app has a library of information including tips on self-care, recognizing distress signals and managing early signs of stress, anxiety, and emotional struggles.

This mobile app will also help users connect for free and access confidential mental health support through trained mental health professionals across India, 24x7 for immediate counselling.

### T-90 BHISHMA TANK

**In a significant move towards self-reliance, the Indian Army has rolled out its first overhauled T-90 Bhisma tank, further enhancing its operational readiness.**



It is Indian Army's main battle tank since 2003.

- It is known for its firepower, speed, and protection. With this overhaul, the tank has become even more powerful and lethal.
- The tank is manned by a crew of three—commander, gunner, and driver—who work in close coordination to engage and destroy targets.

### Features

- It is equipped with a 125 mm smoothbore gun, capable of firing various types of shells.





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- An anti-aircraft gun mounted on top can bring down targets within a two kilometre range, and the tank can fire up to 800 shells per minute.
- Its compact size enables it to manoeuvre quickly through forests, mountains, and marshy terrain at a speed of up to 60 kilometres per hour.
- It has advanced thermal sighting system, the tank can detect targets up to 8 kilometers (5 miles) away, day or night.

### WHAT IS CENTRAL DRUGS STANDARD CONTROL ORGANISATION (CDSCO)?



The Central Drugs Standard Control Organisation (CDSCO) has met safety, efficacy, and quality - indicators for a functional vaccine regulatory system by the World Health Organization (WHO), the government said recently.

- It is the National Regulatory Authority (NRA) of India for the medical devices industry under the provisions of the Drugs & Cosmetics Rules.
- It works under the Ministry of Health & Family Welfare.
- The Drugs Controller General of India (DCGI) is the head of the CDSCO.

Headquarters: New Delhi.

Under the Drugs and Cosmetics Act, CDSCO is responsible for,

- Approval of New Drugs;
- Conduct of Clinical Trials;
- Laying down the standards for Drugs;
- Control over the quality of imported Drugs in the country;
- Coordination of the activities of State Drug Control Organizations;
- CDSCO, along with state regulators, is jointly responsible for the grant of licenses for certain specialized categories of critical drugs, such as blood and blood products, I. V. Fluids, Vaccine and Sera.