

## DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 23-02-2024

### Table of Content

- Women of ASHA: Overworked and Underpaid
- Right to Adopt is not a Fundamental Right
- Human Rating and Gaganyaan Mission
- Interpol's Notices
- CERN scientists carry out laser cooling of Positronium
- News in Short
  - Guinea Worm Disease
  - Deal for 200 BrahMos missiles for Navy
  - INDUS-X Summit
  - Atal Vayo Abhyuday Yojana (AVYAY)
  - Zombie Deer Disease
  - Northern Ireland
  - Trinidad and Tobago
  - Malta

## WOMEN OF ASHA: OVERWORKED AND UNDERPAID

### Context

- A recent study highlights the marginalization of ASHA workers for being Overworked and Underpaid.

### Who are ASHA workers?

- ASHA workers are **volunteers from within the community** who are trained to provide information and aid people in accessing benefits of various healthcare schemes of the government.
- They act as a bridge connecting marginalized communities with facilities such as primary health centers, sub-centres and district hospitals.
- The role of these community health volunteers under the **National Rural Health Mission (NRHM)** was first established in **2005**.

### Eligibility for ASHA workers

- ASHA must primarily be a woman resident of the village married/ widowed/ divorced, preferably in the age group of **25 to 45 years**.
- She should be a **literate woman** with due preference in selection to those who are qualified up to **10th standard** wherever they are interested and available in good numbers.
  - ♦ This may be relaxed only if no suitable person with this qualification is available.

### Roles and responsibilities of ASHA workers

- Facilitating access to **health care services**.
- Building awareness about **health care entitlements** especially amongst the poor and marginalized.
- Promoting **healthy behaviors** and mobilizing for **collective action** for better health outcomes.
- Meeting **curative care** needs in the area.

### Challenges faced by ASHA workers

- **Triple Shift:** ASHA workers endure a triple shift encompassing duties at home, in the community, and at health centers, leading to extreme exhaustion and time constraints.
- **Layers of marginalization:** ASHAs face intersecting power dynamics of gender, caste, and informal economy, exacerbating their marginalization within the system.
- **Limited Autonomy:** ASHAs have limited control over their time, finances, and well-being, highlighting their lack of autonomy within the healthcare system.
- **Erratic Meals:** ASHAs experience erratic meal schedules and often receive the least priority in

food allocation within their families, reflecting broader gender inequalities in India.

- **Violence Embedded in Role:** Economic, physical, and psychological violence is embedded in the ASHAs' role, perpetuated by a system that fails to recognize their contributions.
- **Occupational Hazards Denied:** ASHAs are considered volunteers and denied recognition as 'workers'. Hence hazards such as extreme heat, further compromising their health and safety.
- **Vulnerability to Health Issues:** Poor eating habits, irregular meals, and lack of nutritious food make ASHAs vulnerable to malnutrition, anemia, and non-communicable diseases.
- **Financial Strain:** ASHAs often experience delayed wages and incur out-of-pocket expenses for job-related costs, diminishing their ability to afford healthcare for themselves.
- **Lack of Status as Healthcare Workers:** ASHAs are not accorded the status of healthcare workers, which underpins many of the challenges they face within the system.

### Government Steps

- In the **Interim Budget 2024-2025**, the Central government announced to provide free health insurance cover for all ASHAs and Anganwadi workers and helpers under the **Ayushman Bharat Scheme**.
- **In 2018**, the Ministry of Health and Family Welfare approved an **ASHA benefit package**, providing coverage for accidents, deaths and disability.

### Way Ahead

- A continual, systematic investment to strengthen the ASHA program is inextricably linked to advancing India's child and maternal health outcomes.
- Without policy changes, ASHAs remain framed as mere volunteers, neglecting their rights and welfare.
- India needs to **acknowledge ASHAs as full-fledged workers**, providing them with decent pay and proper care to ensure their physical and emotional fitness, ultimately benefiting women, children, and society as a whole.

Source: TH

## RIGHT TO ADOPT IS NOT A FUNDAMENTAL RIGHT

### Context

- The Delhi High Court has said that the right to adopt a child is not a fundamental right under Article 21 of the Constitution.

### Background

- **The Adoption Regulations, 2022** was notified by the Union Ministry of Women and Child Development.
- They replaced the 2017 regulations, which included a section stating that couples with three or more children may only opt for the adoption of children who have special needs or are hard to place.
- However, under the 2022 rules, this condition will apply to couples with two or more children.

### Concern of prospective adoptive parents (PAPs)

- PAPs with two biological children had moved the High Court against the 2022 rules.
- The petitioners contended that retrospective application of the Adoption Regulations 2022 was arbitrary and violative of Article 14 (equality before law) of the Constitution.

### High court Judgment

- The court said that “the **right to adopt cannot be raised to the status of a fundamental right within Article 21** nor can it be raised to a level granting PAPs the right to demand their choice of who to adopt”.
- The adoption process in entirety operates on the premise of welfare of children and, therefore, the rights flowing within the adoption framework do not place the rights of the PAPs at the forefront.

### Central Adoption Resource Authority (CARA)

- It has been set up as a **statutory body** of the **Ministry of Women and Child Development**.
- It functions as a nodal body for the adoption of Indian children and is mandated to monitor and regulate **in-country and inter-country** adoption.
- It deals with adoption of orphan, abandoned and surrendered children through its associated adoption agencies.
- It is designated as the Central Authority to deal with inter-country adoptions in accordance with the provisions of the **Hague Conventions on Inter-Country Adoptions, 1993**, ratified by the Government of India in 2003.

Source: TH

## HUMAN RATING AND GAGANYAAN MISSION

### Context:

- Recently, ISRO has successfully completed the human rating of its **CE20 cryogenic engine**,

which represents a major boost to India’s attempt to launch humans into space under the Gaganyaan mission.

### About the Gaganyaan Mission:

- India’s first human spaceflight program, aims to send astronauts into a low earth orbit.
- A critical aspect of this mission is the **concept of ‘human rating’**, which refers to the **process of certifying a system capable of safely transporting humans**.

#### Human Rating of L110-G Vikas Engine:

- Earlier, ISRO has completed the **final long-duration hot test of the human-rated L110-G Vikas engine** for the planned qualification duration of 240 seconds.
- The **air-lit liquid core stage** of the human-rated launch vehicle (LVM3-G) uses **two L110-G Vikas engines** in a clustered configuration.
- The successful completion of this test marks a major milestone in the human space flight programme, Gaganyaan.

#### Human Rating of CE20 Cryogenic Engine:

- ISRO has accomplished a major milestone in the human rating of its **CE20 cryogenic engine**, which powers the **cryogenic stage of the human-rated LVM3 launch vehicle** for Gaganyaan missions.
  - ♦ In order to qualify the CE20 engine for human rating standards, four engines have undergone 39 hot firing tests under different operating conditions for a cumulative duration of **8,810 seconds** against the minimum human rating qualification **standard requirement of 6,350 seconds**.
- The ground qualification tests for the human rating of the CE20 engine involved **life demonstration tests, endurance tests, and performance assessment** under nominal operating conditions as well as off-nominal conditions with respect to **thrust, mixture ratio, and propellant tank pressure**.
- The **final test** was the seventh of a series of vacuum ignition tests carried out at the **High Altitude Test Facility** at ISRO Propulsion Complex, **Mahendragiri**, to simulate flight conditions.



### Importance of CE20 Cryogenic Engine:

- It aims to **power the upper stage of the human-rated LVM3 vehicle** and has a thrust capability of 19 to 22 tonnes with a specific impulse of 442.5 seconds.



- ISRO has successfully completed the acceptance tests of the flight engine identified for the first unmanned Gaganyaan (G1) mission, **tentatively scheduled for Q2 of 2024**.
- The successful human rating of the CE20 cryogenic engine and the L110-G Vikas engine marks a significant step towards the realisation of the Gaganyaan mission.
  - ♦ These developments demonstrate ISRO's

commitment to ensuring the safety and success of India's first human spaceflight program.

Source: Wionews

## INTERPOL'S NOTICES

### Context:

- Concerns have been raised about the **misuse of Interpol's notice system**, especially the issuance of **blue corner notices**, which are less scrutinized than their red corner notices.

### About

- Critics argue that **countries often exploit existing protocols to target political refugees and dissidents**.
- While efforts have been made to address this, questions remain about **striking the right balance between facilitating police cooperation and preventing misuse** of this powerful tool.

### Interpol/International Criminal Police Organisation

- **Founded in:** 1923
- **Members:** 196
- **Headquarters:** Lyon, France.
- **Role:** Not a law enforcement agency itself; it connects police forces worldwide and provides support.

100 YEARS AND COUNTING 1923-2023

INTERPOL

OUR EXPERTISE TO SUPPORT MEMBER COUNTRY INVESTIGATIONS

CRIMINAL ANALYSIS

INNOVATION

FUGITIVE INVESTIGATIVE SUPPORT

POLICE DATA MANAGEMENT

FORENSIC SUPPORT

CAPACITY BUILDING AND TRAINING

COMMAND AND COORDINATION CENTRE

SPECIAL PROJECTS

- **Functions:**
  - ♦ Facilitates international police cooperation by:
  - ♦ Sharing information and criminal records.
  - ♦ Issuing international arrest warrants and alerts.
  - ♦ Coordinating cross-border investigations.
  - ♦ Providing training and technical assistance.
- **Focuses on major areas of transnational crime, including:** Terrorism, Cybercrime, Organized crime, Drug trafficking, Human trafficking, Financial crime.
- **Issued by:** The General Secretariat at the request of a member country's INTERPOL National Central Bureau.
  - ♦ Notices can also be issued at the request of **International Criminal Tribunals and the International Criminal Court** to seek persons wanted for committing crimes within their jurisdiction and also at the request of the **United Nations** in relation to the implementation of sanctions imposed by the Security Council.
- **Most Notices are for police use only and are not available to the public.** However, an extract of the Notice can be published on this site if the requesting country wishes to alert the public or seek their help.
  - ♦ **All United Nations Special Notices are public.**

### INTERPOL Notices

- These are **international requests for cooperation or alerts** allowing police in member countries to share critical crime-related information.

### Types of Interpol Notice



- **Red Notice:** To seek the location and arrest of persons wanted for prosecution or to serve a sentence.
- **Yellow Notice:** To help locate missing persons, often minors, or to help identify persons who are unable to identify themselves.
- **Blue Notice:** To collect additional information about a person's identity, location or activities in relation to a criminal investigation.
- **Black Notice:** To seek information on unidentified bodies.
- **Green Notice:** To provide warning about a person's criminal activities, where the person is considered to be a possible threat to public safety.
- **Orange Notice:** To warn of an event, a person, an object or a process representing a serious and imminent threat to public safety.
- **Purple Notice:** To seek or provide information on modus operandi, objects, devices and concealment methods used by criminals.

- **INTERPOL–United Nations Security Council Special Notice:** Issued for entities and individuals who are the targets of UN Security Council Sanctions Committees.

Source: TH

## CERN SCIENTISTS CARRY OUT LASER COOLING OF POSITRONIUM

### Context:

- In a first, an international team of physicists from the **Anti-hydrogen Experiment: Gravity, Interferometry, Spectroscopy (AEgIS)** collaboration has achieved a breakthrough by **demonstrating the laser cooling of Positronium.**

### About

- Physicists representing the **Antihydrogen Experiment: Gravity, Interferometry, Spectroscopy (AEgIS)** collaboration announced this scientific achievement.
- AEgIS is a collaboration of physicists from **19 European and one Indian research group.**
  - ♦ The primary scientific goal of the AEgIS is the **direct measurement of the Earth's gravitational acceleration, g, on antihydrogen.**

### The experiment:

- The experiment was performed at the **European Organization for Nuclear Research, more popularly known as CERN,** in Geneva.
- Experimentalists achieved **laser cooling of Positronium atoms initially from ~380 Kelvin to ~170 Kelvin,** and demonstrated the cooling in one dimension using a **70-nanosecond pulse** of the alexandrite-based laser system.
- The lasers deployed, researchers said, were either in the **deep ultraviolet or in the infrared frequency bands.**

### Do you know?

- *Positronium*, comprising a bound **electron (e<sup>-</sup>) and positron (e<sup>+</sup>)**, is a **fundamental atomic system.**
- Due to its **very short life**, it annihilates with a **half life of 142 nano-seconds.**
- Its **mass is twice the electron mass** and enjoys the unique distinction of being a pure leptonic atom.

- This **hydrogen-like system**, with halved frequencies for excitation, makes it a **great contender for attempting laser cooling** and thereby performing tests of fundamental theories in physics.

### Significance

- This is an important **precursor experiment to the formation of antiHydrogen and the measurement of Earth's gravitational acceleration** on antihydrogen in the AEgIS experiment.
- In addition, this scientific feat **could open prospects to produce a gamma-ray laser** that would eventually allow researchers to look inside the atomic nucleus and have applications beyond physics.
- This **experiment will pave the way for performing spectroscopic comparisons required for the Quantum Electrodynamics (QED),** the study of the light and its interaction with charged matter, and a possible degenerate gas of Positronium down the road.
- According to CERN, the new scientific development will **allow high-precision measurements of the properties and gravitational behaviour** of this exotic but simple matter–antimatter system, which could reveal newer physics.
- It also allows the production of a **positronium Bose–Einstein condensate**, in which all constituents occupy the same quantum state.
  - ♦ Such a condensate has been proposed as a **candidate to produce coherent gamma-ray light** made up of monochromatic waves that have a constant phase difference between them.

Source: IE

## NEWS IN SHORT

### GUINEA WORM DISEASE

#### Context

- The world is on the brink of eradicating Guinea worm disease.

#### Eradication of the disease

- The disease had more than **3.5 million** cases in the **1980s**, but according to the World Health Organization's (WHO), they dwindled to 14 cases in 2021, 13 in 2022, and just six in 2023.
- India eliminated Guinea worm disease in the **late 1990s**, through a rigorous campaign of



surveillance, water safety interventions, and community education.

- ♦ The government of India received Guinea worm disease-free certification status from the **WHO in 2000**.

### Guinea worm disease

- Guinea worm disease, also called **dracunculiasis**, a neglected tropical disease (NTD),
- **It is caused** by the parasite **Dracunculus medinensis**.
- A person typically becomes infected by drinking water containing water fleas infected with guinea worm larvae.
- After infection, around a year later, the **adult female migrates to an exit site** – usually a lower limb – and induces an intensely painful blister on the skin.
- The open sore left by its exit is also susceptible to **secondary infections**.

### Signs and symptoms

- As the worm migrates to its exit site, people have allergic reactions, including hives, fever, dizziness, nausea, vomiting, and diarrhea.
- More than 90% of Guinea worm infections **manifest in the legs and feet**. The individual has an excruciating experience when the adult female worm emerges through the skin.

### Impact

- Dracunculiasis, itself **is not lethal**, it debilitates those whom it infects and prevents them from performing daily tasks and earning their livelihoods.

### Prevention

- There is no vaccine to prevent the disease, nor is there any medication to treat patients.

Source: TH

## DEAL FOR 200 BRAHMOS MISSILES FOR NAVY

### Context

- The Cabinet Committee on Security (CCS) has given its nod for acquisition of over 200 BrahMos Extended Range (ER) supersonic cruise missiles for deployment on Indian Navy warships.

### BrahMos missiles

- It is a joint venture between India's **Defence Research and Development**

**Organisation (DRDO)** and Russia's NPO **Mashinostroyeniya**.

- ♦ The missile derives its name from the **Brahmaputra** and **Moskva** rivers.
- The BrahMos joint venture was formed in **1998** and the first successful launch of the missile took place in **2001**.

### Features

- **Stages:** BrahMos is a **two-stage missile** with a solid propellant booster engine.
  - ♦ **First stage** brings the missile to supersonic speed and then gets separated.
  - ♦ **The second stage** takes the missile closer to three times the speed of sound in cruise phase.
- **Range:** The range of the missile was originally capped at **290 kms** as per obligations of the **Missile Technology Control Regime (MTCR)**.
  - ♦ Following India's entry into the club in June 2016, DRDO officials had stated that the range would be extended to **450 km and to 600 km** at a later stage.

Source: BL

## INDUS-X SUMMIT

### Context:

- Recently, the second edition of **India-U.S. Defence Acceleration Ecosystem (INDUS-X) Summit** was held in New Delhi, India.

### About the INDUS-X Summit:

- It is a collaborative effort between India and the United States in defence innovation.
- It is organised by **Innovations for Defence Excellence (iDEX)** under the Department of Defence Production, Ministry of Defence, and Department of Defence (DoD), United States, in conjunction with the **U.S.-India Business Council** and **Society of Indian Defence Manufacturers**.

### Significances:

- It aims to expand strategic technology partnerships and defence industrial cooperation between the Indian and U.S. governments, businesses, and academic institutions.
- It represents a pivotal moment for advancing defence innovation and collaboration between India and the United States, setting the stage for future technological advancements and strategic partnerships.

Source: TH

## ATAL VAYO ABHYUDAY YOJANA (AVYAY)

### Context:

- The **Department of Social Justice and Empowerment** develops and implements programmes and policies for senior citizens in close collaboration with State Governments, NGOs and the civil society.

### About the Atal Vayo Abhyuday Yojana (AVYAY)

- A **Central Sector Scheme** to improve the quality of life of the Senior Citizens.
- Implemented by:** The Department of Social Justice and Empowerment.
- Aim:** To improve the quality of life of the Senior Citizens by providing basic amenities like shelter, food, medical care and entertainment opportunities and by encouraging productive and active ageing through providing support for capacity building.

### Components of the AVYAY Scheme

- Integrated Programme for Senior Citizens (IPSrC):** Grant in aid is provided to NGOs for running and maintenance of Senior Citizens' Homes (old age homes), continuous care homes, etc.
  - ♦ **Facilities like shelter, nutrition, medicare and entertainments** are provided free of cost to indigent senior citizens.
- State Action Plan for Senior Citizens (SAPSrC):** Grant in aid is released to States/UTs for creation of a pool of trained Geriatric Caregivers for senior citizens, for carrying a special drive for Cataract Surgeries for Senior Citizens and State Specific Activities for the welfare of senior citizens, especially who are indigent in the States/UTs.
- Rashtriya Vayoshri Yojana (RVY):** The scheme aims to provide senior citizens, suffering from any of the age-related disability/infirmity, with **assisted living devices** which can restore near normalcy in their bodily functions, overcoming the disability/infirmity.
  - ♦ The eligible senior citizens under this component are those who are in the **BPL Category or having monthly income upto Rs.15000/-**.
- Elderline: National Helpline for Senior Citizens (14567):** The Ministry has set up the National Helpline for Senior Citizens to provide free information, Guidance, Emotional Support and field intervention in cases of abuse and rescues.

- Senior-care Ageing Growth Engine (SAGE):** To promote out-of-the-box and innovative solutions for the commonly faced problems.
  - ♦ **Innovative start-ups are identified and encouraged** for developing products, processes and services for the welfare of the elderly under this initiative.
- The selected start-ups/start-up ideas are provided equity support of up to **Rs.1 Crore per project**.
- Geriatric Caregivers Training :** To bridge the gap in supply and increasing demand in the field of geriatric caregivers and also to create a cadre of professional caregivers in the field of geriatrics.
  - ♦ The component is implemented through **National Institute of Social Defence** and at present 3,180 geriatric caregivers have been trained.

Source: PIB

## ZOMBIE DEER DISEASE

### Context:

- Chronic wasting disease also known as Zombie deer disease** is spreading among wildlife across **North America, Scandinavia, and South Korea**.

### Zombie deer disease

- It is a fatal **neurological illness and chronic wasting disease that affects deer, elk, reindeer, sika deer, and moose**.
  - ♦ Symptoms include emaciation, disorientation, lethargy, and abnormal behavior, **earning it the nickname "zombie"** due to affected animals exhibiting **staggering gaits and vacant expressions**.
- Causative factor:** It is caused by abnormal proteins called **prions**, which damage brain and nerve tissues.
- Symptoms:** It may take over a year before an infected animal develops symptoms, which can include **drastic weight loss (wasting), stumbling, listlessness and other neurologic symptoms**.
- Treatment:** There are no treatments or vaccines for the disease.
- Transmission:** It spreads between animals through **body fluids** like feces, saliva, blood, or urine, either through **direct contact or indirectly** through environmental contamination of soil, food or water. It can spread quickly between deer populations.

Source: TOI



## NORTHERN IRELAND

### In News

- Northern Ireland finally got a functional government after two years .



### About Northern Ireland

- It is a part of the United Kingdom and It is bordered by the Republic of Ireland in the south and west.
- In the east, it is separated from Scotland by the North Channel.
- In the north, it is surrounded by the Atlantic Ocean.
- Geographical Features :**



- ♦ **Highest Point:** Slieve Donard which is located within the Mourne Mountains
- **Sperrin Mountains**
  - ♦ The **Antrim Plateau**, situated in the northeast, constitutes another important geographical region in Northern Ireland.
  - ♦ The **Lagan River**, which flows through the valley, serves as an essential water source for the region, supporting agriculture, industry, and residential needs.
  - ♦ Northern Ireland boasts numerous lakes, known locally as loughs. Among these, **Lough Neagh is the largest**,
- **Lough Erne.**

## TRINIDAD AND TOBAGO

### In News



### Oil spill in Trinidad and Tobago impacting its tourism industry

#### About Trinidad and Tobago

- It is an island country of the southeastern West Indies.
- It consists of two main islands—Trinidad and Tobago—and several smaller islands.
  - ♦ Trinidad is the larger and more populous of the main islands; Tobago is much smaller, comprising about 6% of the total area and 4% of the population.

It shares maritime borders with **Barbados** to the northeast; **Grenada** to the northwest; **Guyana** to the southeast and with **Venezuela** to the west and south.



- The capital of Trinidad and Tobago is Port of Spain.
- The islands are bounded by the **Caribbean Sea** to the north; by the **Atlantic Ocean** to the south and east and by the **Gulf of Paria** to the west.
- The highest point on the islands is **El Cerro del Aripo**
- Trinidad is drained by numerous short rivers and streams, with the Rivers – Caripo (in the north) and Ortoire (in the south), being the most significant.

## MALTA

### In News

### Malta Becomes 119th Country to Join International Solar Alliance



### About Malta

- Malta, an island country located in the central Mediterranean Sea.
- It is located in the southern-central region of the Mediterranean Sea, in Southern Europe.
  - ♦ It is positioned both in the Northern and Eastern hemispheres of the Earth.
- Malta is situated South of Sicily (Italy), East of Tunisia and North of Libya.
- The three largest islands in the archipelago are Malta, Comino, and Gozo

