

October - 07

## TNPSC BITS

- ❖ Meta has released its first open-source model Llama 3.2 with both image and text processing abilities.
- ❖ Telangana has become the first State, in the country, to get a chapter of NITI Aayog's Women Entrepreneurship Platform (WEP).
- ❖ The Indian Air Force conducted a massive air show in Chennai to commemorate the 92nd anniversary of the Force.
- ❖ The World Green Economy Forum was held in Dubai, under the theme, "Empowering Global Action: Unlocking Opportunities and Advancing Progress".
- ❖ The Indian Military Nursing Service (MNS) marked its 99th Raising Day on Oct 1<sup>st</sup>, 2024.
- ❖ India is going to host first-ever Kho Kho World Cup in 2025.
- ❖ The World Health Organization has adopted the Global Strategic Preparedness, Readiness, and Response Plan, or SPRP, to minimize the dengue and other threats from Aedes-borne arboviruses.
- ❖ Idagunji Mahaganapati Yakshagana Mandali Keremane has received recognition from the UNESCO convention for safeguarding the Intangible Cultural Heritage (for the promotion of Yakshagana Dance).
- ❖ Typhoon Krathon made landfall in the major port city of Kaohsiung, Taiwan.

## TAMIL NADU

### Heat wave Mitigation Road map

- ❖ Global reports indicate that India will lose up to 5% of its Gross Domestic Product by 2030 to rising temperatures.
- ❖ Tamil Nadu with its warm tropical weather, is projected to be severely impacted by heat.
- ❖ The State Planning Commission brought a report, 'Beating the Heat-Tamil Nadu Heat Mitigation Strategy'.
- ❖ The temperature range at which humans can thrive is 25 degrees Celsius to 30 degrees Celsius, with 60% humidity.
- ❖ However, in many parts of Tamil Nadu, this threshold is regularly breached.
- ❖ At present, nearly 74% of the State's population is exposed to air temperature of over 35°C.

- ❖ The Tamil Nadu State Disaster Management Authority prepared the Heat Wave Action Plan in 2019, and in 2023.






WHAT MAKES FOR A HEATWAVE?		
Places with normal maximum temperature	Heatwave if temperature higher by	Severe heatwave if temperature higher by
40 degree Celsius or less	5-6 degree Celsius	7 degree Celsius
More than 40 degree Celsius	3-4 degree Celsius	More than 5 degree Celsius
For any place	Maximum temperature remains above 45 degree Celsius for two consecutive days	

*These criteria have to be met in at least two stations of a meteorological sub-division for at least two consecutive days. Source: Parliament question and IMD*

## NATIONAL

### Jal Hi AMRIT Program

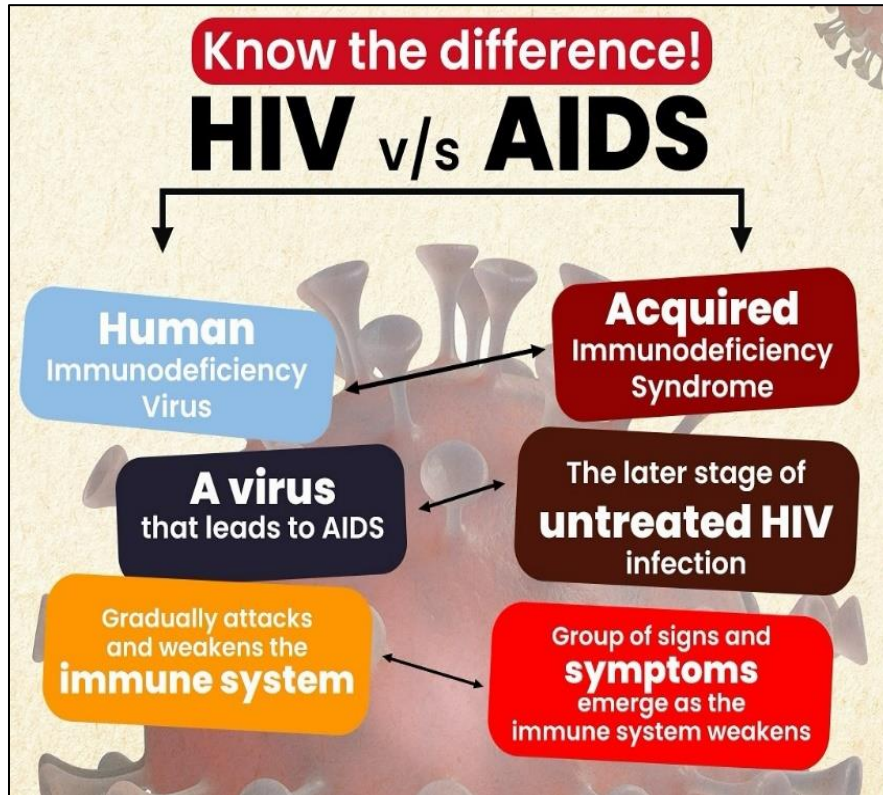
### AMRUT 2.0

- 
**Cabinet approves** the Atal Mission for Rejuvenation and Urban Transformation – **AMRUT 2.0**
- 
 Total indicative outlay of **₹2,77,000 crore**
- 
 Targets universal coverage of water supply by providing **household tap connections in all 4,378 statutory towns**
- 
**100% coverage** of household **sewerage/septage** management in **500 AMRUT cities**
- 
 Provide **2.68 crore tap** connections and **2.64 crore sewer/septage** connections

- ❖ 'Jal hi Amrit' initiative was launched under AMRUT 2.0 to promote efficient water management
- ❖ This initiative incentivises states and UTs to manage sewage treatment plants efficiently, ensuring the production of good-quality, recyclable treated water.

- ❖ AMRUT 2.0 Launched in 2021 to provide universal coverage of water supply through functional taps to all households in all statutory towns.

### HIV infections in India 2024



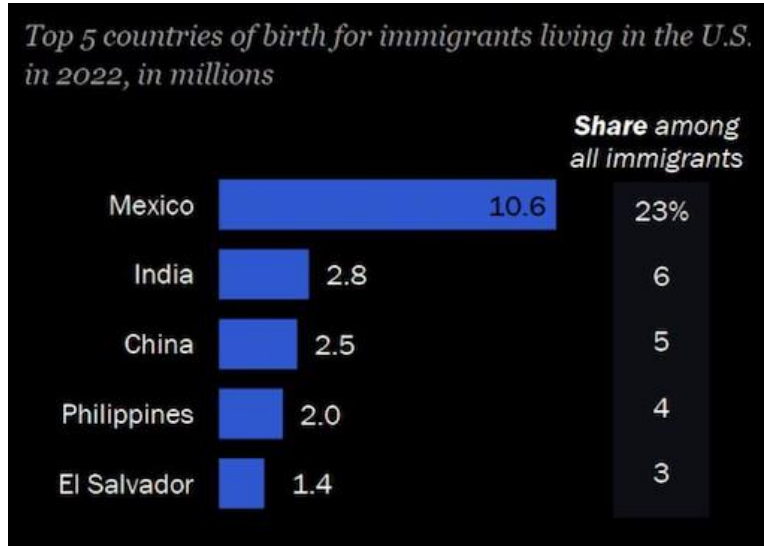
- ❖ India's annual new HIV infections have fallen 44% between 2010 and 2023, better than the global average.
- ❖ India has made notable progress in reducing annual AIDS-related deaths by nearly 80% between 2010 and 2023.
- ❖ Last year, there were 68,000 new infections in India, around 185 people were infected every day.

## INTERNATIONAL

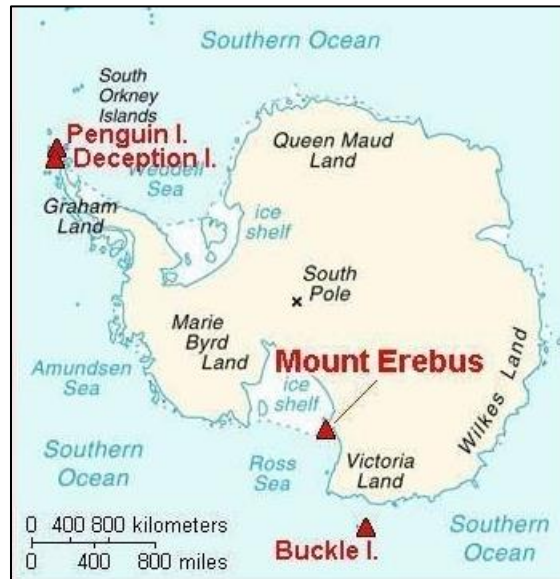
### Top Immigrants source of USA

- ❖ The United States of America is home to nearly one-fifth of world's international migrants.
- ❖ The foreign-born population in the US reached a record 47.8 million in 2023, increasing by 1.6 million from the previous year.

- ❖ Mexico, China, and India are among the top birthplaces for immigrants residing in the US.
- ❖ Mexico remains the largest single country of origin, with 10.6 million Mexicans living in the US, immigrants from India make up 6%, followed by China with 5%.



## Mount Erebus 2024

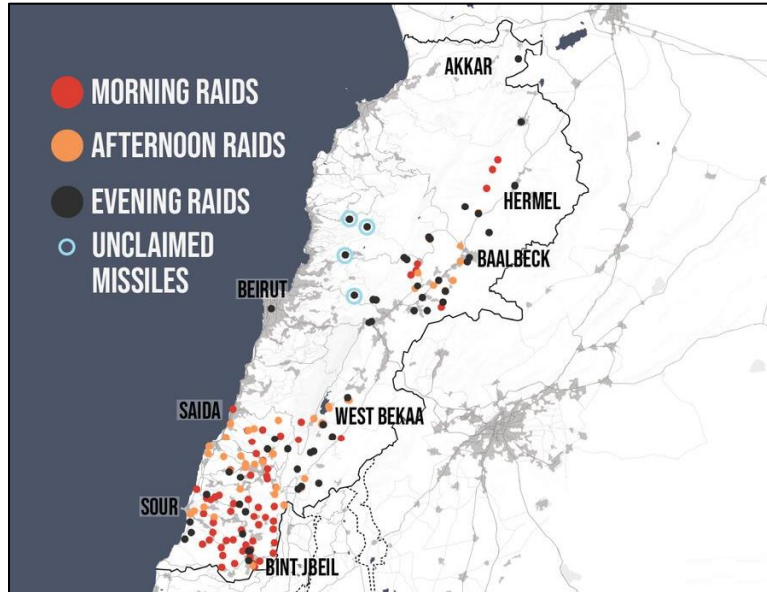


- ❖ Mount Erebus is the southernmost active volcano on Earth that towers 12,448 feet into the air.
- ❖ However, it is a geological wonder that regularly emits gas, steam, and molten rocks that are called volcanic bombs.
- ❖ The volcano regularly emits micro-crystals of gold.

- ❖ This volcano emits around 80 grams of gold, which amounts to about \$6,000 every day.
- ❖ Sir James Clark Ross, a British explorer, discovered the volcano in 1841 in his expedition to Antarctica.

### Operation Northern Arrows

- ❖ Israel Defense Forces (IDF) have launched targeted, limited ground operations against Hezbollah in southern Lebanon under Operation Northern Arrows.
- ❖ The IDF aims to neutralize some of the immediate dangers that Hezbollah presents to Israeli towns and cities.
- ❖ It is conducted in parallel with combat in Gaza and other areas.

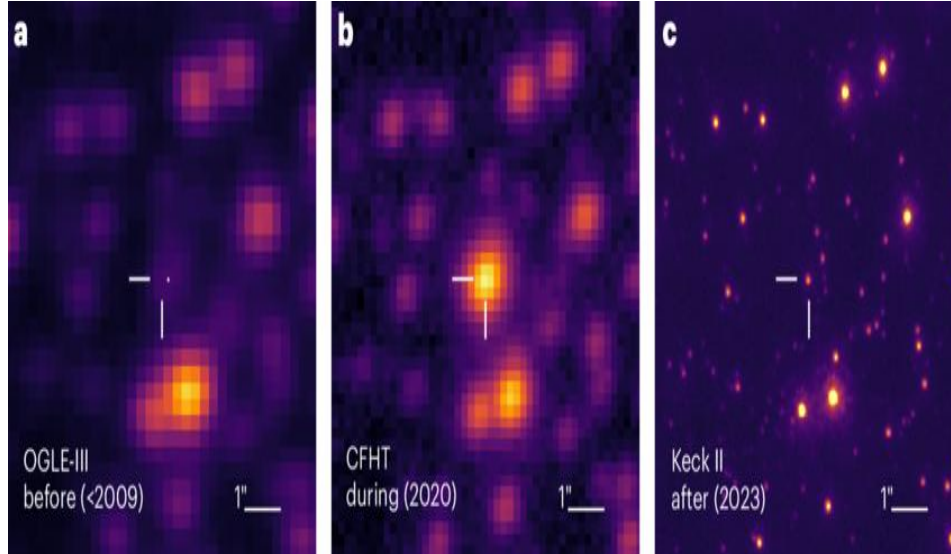


## SCIENCE AND TECHNOLOGY

### Earth's Future

- ❖ Eight billion years into the future, astronomers have discovered what may be a future Earth.
- ❖ Astronomers have got a unique look at what our planet might look like in eight billion years.
- ❖ The planet, known as KMT-2020-BLG-0414, is a rocky world 4,000 lightyears away from Earth that orbits a white dwarf, which is the burning remnant of a star.
- ❖ In 5 billion years, our sun is predicted to change into a white dwarf.

- ❖ But before then, Mercury, Venus, and maybe even Earth and Mars will be consumed by our sun as it accelerates outward into a red giant.
- ❖ Humans may migrate to the icy moons Europa and Enceladus, which will become water worlds as the sun becomes a red giant.



### **New FAST Core Array**



- ❖ The Five-hundred-meter Aperture Spherical Telescope (FAST) is situated in karst region in Guizhou, southwest China.
- ❖ Now a second phase will add 24 new moveable radio telescopes, each with a diameter of 131 feet (40 meters).
- ❖ This expansion is named the FAST Core Array.

- ❖ It aims to make use of the "quiet" electromagnetic environment that exists within a 3-mile (5 kilometers) radius around the telescope.

## ENVIRONMENT

### Indian Wild Ass – Khur

- ❖ The Little Rann of Kutch is home to the wild ass sanctuary, which is the only remaining habitat of the Indian wild ass (*Equus hemionus khur*), locally called khur.
- ❖ About 6,000 of these sandy and brown creatures live in this area.
- ❖ The khur has outlasted predators such as the cheetah and the lion, which were last spotted in this region in the 1850s.
- ❖ The khur have recently overcome a near-extinction event on account of diseases.
- ❖ The viral African Horse sickness, and Surra (caused by the protozoan parasite *Trypanosoma evansi* and spread by biting insects) had decimated many herds.
- ❖ Only a few hundred survivors were estimated in the 1960s.

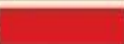






## STATES

### Verified Health Facility

- ❖ Karnataka, Uttar Pradesh, Rajasthan, Maharashtra, and Andhra Pradesh are the top five states in terms of the absolute number of health care facilities verified in the Health Facility Registry (HFR).

- ❖ The National Health Resource Repository (NHRR) data was established in 2018.
- ❖ It aims to collect information on all public and private health care institutions across the country.
- ❖ The HFR is a repository of health facilities that aims to create a national digital health register of both public and private health facilities.
- ❖ This includes hospitals, clinics, diagnostic laboratories, imaging centres, and pharmacies of both modern and traditional systems of medicine.
- ❖ Karnataka is the only state with the highest number of verified facilities in the country at 60,711.
- ❖ It is followed by Tripura and Chhattisgarh, which have coverage saturation rates of 81.2 per cent and 69.1 per cent, respectively.
- ❖ At the bottom of the list are Odisha, Tamil Nadu, and Delhi, which have the lowest levels of facility coverage.

HEALTH FACILITY VERIFICATION	Verified facilities according to						
	HFR	NHRR 2018	Saturation rate (%)		HFR	NHRR 2018	Saturation rate (%)
<b>Top 5</b>					<b>Bottom 5</b>		
Karnataka	60,711*	49,337	100.00		Odisha	6	0.03
Tripura	2,495	3,073	81.20		Tamil Nadu	1,694	2.30
Chhattisgarh	10,403	15,048	69.10		Delhi	1,590	4.30
Rajasthan	33,228	54,083	61.40		Maharashtra	21,964	14.70
Himachal Pradesh	3,989	7,069	56.40		Haryana	4,659	17.60

Note: HFR refers to Health Facility Registry; NHRR refers to National Health Resource Repository; \* Karnataka has verified more facilities than those in NHRR data  
Source: ABDM Dashboard, as of 5 pm, October 2, 2024

## IMPORTANT DAYS

### World Animal Welfare Day 2024 - October 04

- ❖ It aims to celebrate animal rights and welfare all over the planet.
- ❖ It educates people about our species diversity, how to protect and rescue them and about to make a positive impact on animal welfare.
- ❖ World Animal Day was first commemorated on March 24, 1925.





❖ The theme for this year is “The world is their home too.”



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