



Curing HIV Infections

❖ Context

- Recently, A 53-year-old man from Germany, referred to as the **Dusseldorf patient**, has **become at least the third person to have been “cured of HIV”** with the virus not being detectable in his body even four years after stopping the medicine.

❖ Key Highlights

- This was achieved with a **bone-marrow transplant** from people carrying a specific HIV-resistant genetic mutation.
- **Curing Mechanism :**
 - The **CD4 immune cells** in the human body are the primary targets of HIV, which makes it harder for a person to fend against secondary infections.
 - The HIV virus enters the body through the **CCR5 receptors** on the surface of CD4 immune cells.
 - However, the **CCR5-delta 32 mutation** blocks the formation of these surface-bound HIV viral receptors, by effectively closing the passage.
 - Just **one per cent of the world's population** has the CCR5-delta 32 mutation in two copies, which means they acquired it from both parents.
 - 20 per cent of people, mostly those of European heritage, have the mutation in one copy.
 - Those who carry the mutation are therefore almost resistant to the virus.

❖ About HIV

- HIV (human immunodeficiency virus) is a **virus that attacks cells** that help the body fight infection, making a person more vulnerable to other infections and diseases.
- **Global Stats:**
 - Around **37 million people worldwide are living with HIV**. Of these, 1.8 million are children under 15 years of age.

• Transmission:

- It spreads by **contact with certain bodily fluids of a person with HIV**.
- Most commonly during **unprotected sex**
- Through **sharing injection drug equipment**.

• AIDS:

- If left untreated, HIV can lead to the disease **AIDS** (acquired immunodeficiency syndrome).
- AIDS is the **late stage of HIV infection** that occurs when the body's immune system is badly damaged because of the virus.

• Cure:

- **No effective HIV cure exists.**
- However, by taking HIV medicine (called **antiretroviral therapy or ART**), people with HIV can live long and healthy lives and prevent transmitting HIV to their sexual partners.
- There are effective methods to prevent getting HIV through sex or drug use, including **pre-exposure prophylaxis (PrEP)** and **post-exposure prophylaxis (PEP)**.

Burkina Faso

❖ Context

- Recently, Burkina Faso announced an official end to the operations led by France in the country.

❖ Key Highlights

- **France had signed a military agreement with Burkina Faso** in 2018 to achieve stability against the threat of Islamist militant groups.
- France signed a series of similar agreements with other West African nations, including Mali who terminated the operation in late 2022.

❖ About Burkina Faso

- Burkina Faso, **landlocked country** in western Africa.
- The country occupies an **extensive plateau**.
- Its geography is **characterized by a savanna** that is grassy in the north and gradually gives way to sparse forests in the south.
- It is a **former French colony**.
- It has **experienced numerous coups** since independence from France in 1960.
- Since 2015, the country has been **fighting an Islamist insurgency** that spilled over from neighbouring Mali.

- This has **fuelled anger in the military and damaged the once important tourist industry**.
- Burkina Faso is **bounded by Mali** to the north and west, **Niger** to the northeast, **Benin** to the southeast, and **Côte d'Ivoire, Ghana, and Togo** to the south.



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El Niño Forecast

❖ Context

- While India has benefitted from **three consecutive La Niña years**, an **El Niño in 2023** could knock the wind out of its monsoon sails.



❖ Key Highlights:

- **India experienced a colder than normal winter** due to the north-south winter flow set up by the weather phenomenon known as La Niña.
- The ongoing La Niña phenomenon has now reached a record-breaking 3rd consecutive year.
- The forecast for the fall and winter of 2023 suggests a **probability of over 50%** for the occurrence of its companion phenomenon, the El Niño.

❖ About El Niño:

- El Niño is **the warming of sea waters** in the Central-east Equatorial Pacific that occurs every few years.
- During El Niño, surface temperatures in the **equatorial Pacific rise**, and trade winds - east-west winds that blow near the Equator weaken.
- **Under normal circumstances**, the easterly trade winds blow from the Americas towards Asia.
- **However, during El Niño**, these winds weaken and reverse direction, becoming westerlies that bring warm water from the western Pacific towards the Americas.
- Deeper waters are usually more nutrient-rich, **but upwelling is reduced under El Niño**, in turn reducing phytoplankton off the coast.
- Warmer water also **carries tropical species** towards colder areas, disrupting multiple ecosystems.
- **El Niño causes dry**, warm winters in Northern U.S. and Canada and increased flooding risk on the U.S. gulf coast and southeastern U.S.
- It also brings **drought to Indonesia and Australia**.

❖ About La Niña:

- **La Niña** is the opposite of El Niño. La Niña is cooler than average SST in the equatorial Pacific region.
- **Trade winds are stronger than usual**, pushing warmer water towards Asia. On the American west coast, upwelling increases, bringing nutrient-rich water to the surface.
- Pacific cold waters close to the Americas **push jet streams northwards**.
- **This leads** to drier conditions in the Southern U.S., and heavy rainfall in the northwest and Canada.
- The combination of El Niño, La Niña, and the neutral state between the two opposite effects is **called the El Niño Southern Oscillation (Enso)**.
- ❖ **Effects On The Northern Indian Ocean:**
 - **In India**, El Niño causes weak rainfall and more heat, while La Niña intensifies rainfall across South Asia, particularly in India's northwest and Bangladesh during the monsoon.
 - A transition from a **La Niña winter to an El Niño summer** has historically tended to produce a largest deficit in the monsoon, on the order of 15%.
 - This means **that pre-monsoon and monsoon circulations** tend to be weaker in an El Niño year.
 - **The vertical shear** (change in the intensity of winds from the surface to the upper atmosphere) tends to be weaker as well. This in turn can favour enhanced cyclogenesis, **i.e. cyclone formation**.
 - Some research has indicated that the **Indian Ocean dipole** – a seesawing of sea-surface temperature over the western Indian Ocean – **could compensate for the negative effects of an El Niño**.

News in Between the Lines

Mohiniyattam



❖ Context

- Noted dancer Kanak Rele, who gave academic status to Mohiniyattam, dies.

❖ About Mohiniyattam:

- **Originating from Kerala, Mohiniyattam** is one of the eight classical dance forms of India, with the other seven being Bharatnatyam, Kathak, Kathakali, Sattriya, Odissi, Kuchipudi, and Manipuri.
- **The origin and popularity** of this dance form is closely tagged to the great **Tamil dance master Vadivelu, one of the Thanjavur quartets**.
- Mohiniyattam is a graceful dance to watch and is a **solo recital by women**.
- **The term Mohiniyattam comes** from the words mohini meaning a woman who enchants onlookers and aattam meaning graceful and sensuous body movements.
- The dance form Mohiniyattam has love and devotion to God as its major themes, with usually **Lord Vishnu or his incarnation Lord Krishna as the lead character**.

Organic Farming

❖ Context

- Recently the Prime Minister, has asked people for Organic Farming at home.

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❖ **About Organic Farming:**

- **The farming system known as organic farming** is primarily focused on cultivating the land and growing crops in a manner that preserves the health of the soil.
- **This is achieved by utilizing organic wastes** such as crop, animal, and farm waste, as well as aquatic waste, along with beneficial microbes or bio fertilizers to release nutrients to the crops.
- **According to a survey** India holds a unique position among 187 countries practicing organic agriculture, India is home to 30% of total organic producers in the world having 2.30 million ha.
- **The top three states** - Madhya Pradesh, Rajasthan and Maharashtra - account for about half the area under organic cultivation.
- Organic agriculture is practiced in 187 countries, with **the most organic agricultural land in Australia.**

International Civil Aviation (Chicago Convention)



❖ **Context**

- Cabinet approves the ratification of protocols relating to amendments in the convention on **International Civil Aviation (Chicago Convention), 1944.**

❖ **Key Highlights:**

- The **articles of the Chicago Convention** establish the privileges and obligations of all contracting States and promote international ICAO Standards and Recommended Practices (SARPs) adoption that regulate international air transport.
- The ratification has been approved in the **following three protocols**--
 - **Protocol to insert Article 3** in the Chicago Convention, 1944 to refrain member States from resorting to the use of weapons against civil aircraft in flight.
 - **Protocol to amend Article 50 (a)** of the Chicago Convention, 1944 for raising the strength of the ICAO Council from 36 to 40.
 - **Protocol to amend Article 56** of the Chicago Convention, 1944 for raising the strength of the Air Navigation Commission from 18 to 21.
- **The ratification would affirm India's commitment** to the principles enshrined in the Convention on International Civil Aviation.
- The ratification would **provide better chances and opportunity** for India to become more instrumental in matters pertaining to international civil aviation.

The Information Fusion Centre - Indian Ocean Region



❖ **Context**

- In order to further the existing cooperation in the realm of maritime safety and security, **IFC-IOR signed a MoU with Regional Coordination Operations Centre (RCOC), Seychelles.**

❖ **About IFC-IOR:**

- **IFC-IOR, hosted by the Indian Navy,** was established by the Government of India at Gurugram on 22 Dec 2018.
- **Its purpose is to** enhance collaborative maritime safety and security in the Indian Ocean Region. This effort aligns with India's vision of **Security and Growth for All in the Region (SAGAR).**
- **To improve the correlation of information,** the Centre hosts International Liaison Officers (ILOs) from partner nations. **To date the Centre has hosted ILOs from 12 partner nations** - Australia, France, Italy, Japan, Maldives, Mauritius, Myanmar, Sri Lanka, Seychelles, Singapore, United Kingdom, and the United States of America.

Mukaab



❖ **Context**

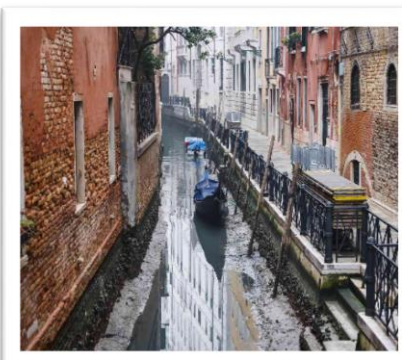


- Recently, Saudi Arabia unveiled its latest grand plan to transform its capital city.

❖ **Key Highlights**

- The new project coming up in Riyadh is called the **Mukaab** – “cube” in Arabic.
- It will stand 400 metres high, wide and long, big enough – to hold 20 Empire State Buildings. The Mukaab will be at the heart of the New Murabba Project, a plan to create **“the world's largest and modern downtown” in Riyadh.**
- The Mukaab will be built using the modern **Najdi architectural style.**
- Its design focuses on **naturally controlling the climate** inside the structure.
- It will serve a functional purpose by limiting energy requirements inside it.

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	<ul style="list-style-type: none"> Set to be completed by 2030, it will be helmed by Crown Prince Muhammad bin Salman. This is the latest among a string of ambitious architectural projects planned and undertaken by Saudi Arabia as a part of its Vision 2030, aimed at revolutionising the country's economy and lifestyle. Recently, the NEOM project (or The Line) has dominated headlines for its futuristic design and ambitious zero-carbon goals.
<p>Venice Canal</p> 	<ul style="list-style-type: none"> ❖ Context <ul style="list-style-type: none"> ➤ With some of Venice's secondary canals almost drying up in the past few days, images of docked water taxis, gondolas and ambulance boats have garnered a lot of attention on social media. ❖ Key Highlights <ul style="list-style-type: none"> Experts believe that a prolonged long spell of low tides and lack of rain are responsible for the issue in the city. The low water levels have come as a surprise because Venice is known to suffer from frequent flooding. ❖ About Famous Canal and Gondolas of Venice <ul style="list-style-type: none"> Located in northern Italy, the city of Venice has a unique geography. It is a collection of over 118 small islands spread over a lagoon, which is a kind of water body that is separated from a larger water body through some kind of land formation. Covering 70,176.4 ha., the Venetian lagoon is separated from the Adriatic Sea. Temporary settlements in the 5th century gradually became permanent here, comprising land-dwelling peasants and fishermen.
<p>Neutral Citation</p> 	<ul style="list-style-type: none"> ❖ Context <ul style="list-style-type: none"> ➤ Recently, Chief Justice of India announced that the Supreme Court will adopt a "neutral citation system" for its judgments. ❖ Key Highlights <ul style="list-style-type: none"> The CJI expressed hope that High Courts too would follow neutral citation for their judgments. The Delhi, Kerala, and Madras HCs have already introduced neutral citation. ❖ About Neutral Citation <ul style="list-style-type: none"> Citation : A case citation is essentially an identification tag for a judgment. <ul style="list-style-type: none"> Typically, it would contain a reference number, the year of the judgment, the name of the court that delivered that judgment, and a shorthand for the journal publishing the judgment. Neutral Citation : A neutral citation would mean that the court would assign its own citation - distinct from those given by traditional Law Reporters. <ul style="list-style-type: none"> Law Reporters are periodicals or annual digests that publish judgments, often with an editorial note to make it accessible for lawyers to refer to precedents. The Delhi HC neutral citation is, for example, in this format: No-YEAR/DHC/XXXXXX. Significance : With artificial intelligence (AI) enabled translation of judgments and transcribing of court proceedings, a uniform citation is necessary.
<p>Feed Back Unit</p>  <p>MCQ Quiz Daily Current Affairs Daily Pre PARE Daily</p>	<ul style="list-style-type: none"> ❖ Context <ul style="list-style-type: none"> ➤ Recently, The Ministry of Home Affairs (MHA) gave the Central Bureau of Investigation (CBI) its nod to prosecute Delhi's Deputy Chief Minister in a prevention of corruption case related to a 'Feed Back Unit' (FBU) created in 2015. ❖ Key Highlights <ul style="list-style-type: none"> It was setup in September 2015 with approval from the Delhi Cabinet of Ministers. The 'Feed Back Unit' was tasked with gathering 'relevant information and actionable feedback' regarding the working of government departments, autonomous bodies, institutions and entities under the jurisdiction of the Delhi government. Its mandate also included conducting sting operations, or 'trap cases', by its personnel, dubbed intelligence 'assets', on 'targets' or subjects – mainly individuals – under the Secretary of the Vigilance department but the 'direct control of the Chief Minister's Office.' It is alleged that the FBU was a "covert body aimed at targeted espionage" meant to "camouflage clandestine political objectives" and operate without "any administrative control or oversight".

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