

1. Sustainable Development Goal Localisation

Topic: Economy



In News: The Union Ministry of Panchayati Raj (MoPR) and the United Nations Development Programme (UNDP) have signed an agreement to collaborate in the areas of knowledge sharing and strengthening monitoring mechanisms for the localisation of the sustainable development goals.

More on the Topic:

- UNDP has been leading efforts **in partnership with NITI Aayog** and the State governments, notably Haryana, Karnataka, Nagaland, Punjab and Uttarakhand, to localise and accelerate the SDGs through its signature solution of Sustainable Development Coordination Centres.
- The achievement of Sustainable Development Goals by 2030 can happen only if we **consider local context and situations**.
- The MoPR-UNDP partnership will help in **keeping local priorities on top of the agenda**, while planning and implementing programmes.

About Sustainable Development Goals:

- Sustainable development can be defined as **'Development which meets the needs of the present without compromising the ability of future generations to meet their own needs'**.
- The Sustainable Development Goals or Global Goals are a collection of **17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all"**.
- Three core elements of sustainable development are **economic growth, social inclusion and environmental protection**.

- The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by 2030.

Source: Indian Express

2. Self-amplifying mRNA vaccine

Topic: Science and Technology

In News: A self-amplifying mRNA vaccine which was developed recently has shown promising results during an ongoing clinical trial in Vietnam.

More on the Topic:

- As per the developers the vaccine known as ARCT-154 offered 95 percent protection against severe Covid-19 and death, and 55 percent against COVID-19 infection.
- A self-amplifying mRNA vaccine delivers RNA multiplies inside the body.
- mRNA vaccines developed by Pfizer/BioNTech and Moderna use **messenger RNA that encodes the spike protein of the coronavirus.**
- This means that the **mRNA directs the cell to produce copies of the spike protein** so that the immune system will recognise the spike if and when actual infection takes place, and mount a response.
- On the other hand, the self-amplifying mRNA vaccine encodes **four extra proteins in addition to the vaccine antigen.** This enables amplification of the original strand of RNA once inside the cell.
- The basic advantage of new vaccine is that it requires a **smaller dose.**
- The new vaccine can be **easily stored, and it has lower cost** because its 'self-amplifying' design allows for smaller doses.



Source: Indian Express

3. Hermes Starliner drones

Topic: Science and Technology

In News: The Hermes StarLiner drone has been certified by the Israel Transportation Ministry to fly in civilian airspace, this makes Israel the first country in the world to permit unmanned aerial vehicles (UAV) to fly in civilian airspace.



More on the Topic:

- The majority of currently available UAVs lack the sensors needed to operate in civilian airspace without interfering with other planes.
- As a result, numerous countries have passed legislation prohibiting powerful drones from flying in civilian airspace.
- The StarLiner drone was **modified to comply with civil aviation requirements** by installing sensors to identify other aircraft and avoid collisions with them, an additional warning system to prevent it from approaching or crashing into the ground, autonomous takeoff and landing systems in low-visibility conditions, and other changes.
- Despite the fact that the certification will only apply to Israeli airspace, it is likely to improve the possibility of international adoption.
- Uses - Hermes Starliner will be able to
 - Participate in anti-terror and border security operations,
 - Perform maritime rescue and search,
 - Take part in securing public events, and
 - Take part in environmental inspection and commercial aviation missions.

Source: Indian Express

4. Desert National Park

Topic: Environment and Ecology

In News: Food and Agriculture Organization will implement Green Agriculture project in Desert national park in collaboration with UNEP.

More on the Topic:

- Desert National Park is a national park situated in the Indian state of Rajasthan, near the towns of Jaisalmer and Barmer.
- It is only place where Rajasthan State Bird (Great Indian Bustard), State animal (Chinkara) and State tree (Khejri) and State flower (Rohida) are found naturally.
- It also has fossil evidences dating back to the Jurassic Period indicating hot and humid climate characterized by dense forests. 180 million years old fossils of animals and plants are preserved at Wood Fossil Park at Akal near to Jaisalmer.



Source: Indian Express

5. Whakaari White Island

Topic: Places in News

In News: A new research has find out ways to detect pre-eruption warning signals at Whakaari White Island and other active volcanoes.

More on the Topic:

- Whakaari/White Island (also known as just White Island) is an active andesite stratovolcano situated in the New Zealand's north eastern Bay of Plenty.
- **It is New Zealand's most active cone volcano.** Whakaari erupted continually from December 1975 until September 2000, marking the world's longest historic eruption episode.
- This stratovolcano (composite cone volcano) formed out of the **convergent plate boundary between the Pacific and Australian plates.**
- It is made of layers of andesite lava flows and pyroclastic deposits (tephra).



- in the recent 2019 eruption, experts identified the event as a phreatic eruption: a release of steam and volcanic gases that caused an explosion, launching rock and ash into the air.
- The volcanic island Whakaari/White Island in Bay of Plenty region explosively erupted in December 2019. Fifteen people were killed and a further thirty suffered injuries.

Source: Business Standard

6. Sarmat Intercontinental Ballistic Missile

Topic: Science and Technology

In News: Russia has tested its new Inter Continental Ballistic Missile (ICBM) Sarmat.

More on the Topic:

- The RS-28 Sarmat (NATO name Satan-II) is reported to be able to carry ten or more warheads and decoys and has the capability of firing over either of the earth's poles with a range of 11,000 to 18,000 km.
- It is expected to pose a significant challenge to the ground-and-satellite-based radar tracking systems of the western powers, particularly the USA.
- The Sarmat is a liquid fuelled missile as compared to US ICBMs which have moved on to solid fuel systems.
- It is claimed that it has the longest range of destruction of targets in the world.
- The name Sarmat is based upon the **nomadic Sarmatian tribes** which used to live between 6th and 4th century BC in current territories of Russia, Ukraine and Kazakhstan.



Source: Hindu

7. Chennakeshava Temple

Topic: Art and Culture

In News: Rathotsava (chariot festival) at the historic Chennakeshava temple has begun with age old tradition of recital of the Quran.



More on the Topic:

- The Chennakeshava Temple was a centrepiece of the Hoysala kingdom and it is believed to be closely related to **the military achievements of the king** who commissioned it in 1117 AD, King Vishnuvardhana.
- It is located at Belur which was the first capital city of the Hoysalas.
- The king had fought wars with the Western Chalukyas and had also defeated the Cholas.
- The temple was built using **soft soapstone** as they were found suitable for intricate carvings.
- It is built according to Vijayanagara Architecture style.

Source: Hindu

8. Pranahita pushkaralu

Topic: Art and Culture

In News: The 12-day Pranahita Pushkaralu was organized recently.

More on the Topic:

- Pranahita River which originates at Tummidu Hatti on the Telangana-Maharashtra border flows for 113 kms before empties itself into the Godavari at Kaleshwaram.
- It is the confluence of Godavari-Pranahita-Saraswati (Antarvahini).
- Pranahita is the extension of the confluence of two rivers the Wardha





and the Wainganga.

- The Pranhita River is the largest tributary of Godavari River.
- The Godavari River rises from Trimbakeshwar in the Nashik district of Maharashtra.

Source: Hindu
