



## 1. UN Ground Water Summit 2022

Topic: Environment and Ecology



# GROUNDWATER SUMMIT 2022

UN-Water Summit on Groundwater

**In News:** United Nations-Water Summit on Groundwater 2022 was held in Paris, France.

### More on the Topic

- The two-day conference will be organised by UN-Water, UNESCO and the International Groundwater Resources Assessment Centre.
- The summit will mark end of “Groundwater: Making the invisible visible” campaign run by UN-Water throughout 2022.
- The campaign highlighted the role of groundwater in alleviating poverty, food and water insecurity and other socio-economic development hurdles.

### Ground Water Statistics:

- Groundwater is a vital resource that provides almost half of all drinking water worldwide, **about 40 per cent of water for irrigated agriculture and about a third of water required for industry.**
- The role of groundwater in human development becomes bigger in the face of heightened water scarcity that is “already affecting about **2.7 billion people** around the world for at least one month per year”.
- The unmanaged groundwater and increasing population may result in seasonal water shortages by 2050 for an estimated 3.1 billion people and perpetual water shortage for almost a billion.



- Further, water and food security will also be compromised and lead to poverty in the cities despite having good infrastructure development.

#### India- Ground Water Statistics:

- India is the largest user of groundwater with a fourth of the total global withdrawal. Indian cities cater to about 48 per cent of its water supply from groundwater.
- **89% of ground water extracted** is used in the **irrigation sector**, making it the highest category user in the country.
- This is followed by ground water for domestic use which is 9% of the extracted groundwater. Industrial use of ground water is 2%. **50% of urban water requirements** and **85% of rural domestic water requirements** are also fulfilled by ground water.
- According to the CGWB, with **230 billion metre cubes of groundwater drawn out each year** for irrigating agriculture lands in India, many parts of the country are experiencing rapid depletion of groundwater.

#### Government Initiatives:

- **Atal Bhujal Yojana (Atal Jal):** Sustainable management of ground water resources with community participation.
- **Jal Shakti Abhiyan (JSA):** It was launched in 2019 in 256 water stressed districts in the country to improve water availability including ground water conditions in these areas.
- **Aquifer Mapping and Management Programme:** The CGWB has taken up Aquifer Mapping and Management Programme.
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT):** Development of basic urban infrastructure in the AMRUT cities, such as water supply, sewerage & septage management, storm water drainage, green spaces & parks, and non-motorized urban transport.

Source: Indian Express

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## 2. L1 Frequency Global Positioning System (GPS)



### Topic: Science and Technology

**In News:** Indian Space Research Organisation (ISRO) is introducing the L1 frequency in all its future satellites.

#### More on the Topic:

- It is aimed to promote the civilian use of NAVigation with the Indian Constellation (NavIC).
- It is the regional navigation satellite system developed by the Indian Space Research Organisation (ISRO).
- The L1 frequency, one of the most commonly used frequencies in the Global Positioning System (GPS), **will increase the use of the regional navigation system (NavIC) in wearable devices and personal trackers** that use low-power, single-frequency chips.
- At present, the satellites operate on two frequencies — **L5 and S bands**.
- The new satellites NVS-01 onwards, meant to replace these satellites, will also have L1 frequency that can be used by devices that run on low power, single-frequency chips such as smart watches and security systems.

#### About NavIC:

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- NavIC or the **Indian Regional Navigation Satellite System (IRNSS)** is designed with a constellation of 7 satellites and a network of ground stations operating 24×7.
- There are a total of eight satellites however only seven remain active.
- Three satellites in geostationary orbit and four satellites in geosynchronous orbit.

#### Usage of NavIC:

- The usage of NavIC system has increased in India. **NavIC finds utilisation in national projects like public vehicle safety, power grid synchronisation, real-time train information system and fishermen safety.**
- Other upcoming initiatives (such as) common alert protocol-based emergency warning, time dissemination, geodetic network and unmanned aerial vehicles are in the process of adopting NavIC system
- Other than that, many mobile phones available in the country already use chipsets capable of receiving NavIC signals.

Source: Indian Express

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### 3. NASA's Artemis 1 Mission

Topic: Science and Technology



**In News:** The Orion's landing in the Pacific Ocean marked the end of the inaugural Artemis 1 lunar mission exactly 50 years after Apollo's final moon landing.

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- Artemis 1 was essentially **an experimental mission**, to check if the capsule can be trusted to ferry humans to the moon and back in future missions.
- Thus, safe re-entry was critical to the success of the whole initiative.
- In its 35-day mission, the Orion passed about 127 km above the moon in a fly-by. Orion entered Earth's atmosphere at a speed of over 40,000 kilometres per hour – more than 30 times the speed of sound – for a “fiery, 20-minute plunge to the ocean”.
- It has demonstrated **Orion's heat shield can withstand high speed and high heat conditions when returning through Earth's atmosphere.**
- Orion performed a new landing technique called ‘skip entry’, designed to help spacecraft accurately splash down at landing site and reduce the force of gravity.
- After its success, **a crewed Artemis II will go around the moon and back by 2024**, followed in a few years by **Artemis III, which will see astronauts, including a woman, land on the moon.**

#### Significance of Artemis 1:

- It is the first in a series of missions that are planned to **not only take humans back to the Moon, but to also explore the possibilities of extended stay there**, and to investigate the potential to use the Moon as a launch pad for deep space explorations.
- The Artemis missions will build on the existing achievements of space technologies over the past few decades and **lay the foundations for more complex and ambitious missions in the future.**
- It will work towards **extracting the resources found on the Moon, building from the materials available there**, and harnessing hydrogen or helium as energy sources.

Source: Hindu

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## 4. One District One Product (ODOP) initiative



### Topic: Government Schemes

**In News:** One District One Product (ODOP) initiative operationally merged with 'Districts as Export Hub (DEH)' initiative.

#### More on the Topic:

- ODOP was launched by the **Ministry of Food Processing Industries** in 2018.
- It is a centrally sponsored scheme.
- It aims to **facilitate balanced regional development across all districts of India.**
- The programme helps the districts to **attain their maximum potential, promotes economic growth, and creates more employment opportunities.**
- The ODOP Initiative is aimed at **fostering balanced regional development across all districts of the country**, enabling holistic socio-economic growth across all regions.
- The objective is to focus on **District of the country as unit for converting into a manufacturing and export hub** by identifying products with export potential in the District.
- The **State Government would identify the food product from a district.** The product could be a perishable Agri product, cereal-based product, or any food product produced in a district.

#### Districts as Export Hubs:

- The scheme tries to **target export promotion, manufacturing and employment generation at grass root level** and has made States and Districts accountable for the export growth from the Districts in the country.
- Under the DEH initiative, a **District Export Promotion Committee (DEPC)** is formed which is responsible for preparing a district export action plan.



- To effectively implement the plan, the Committee recommended forming an empowered Group of Secretaries of related Ministries/Departments such as agriculture, textile, food processing, and MSME.
- The Committee also noted that **local government bodies should be involved in the implementation of the plan.**

Source: Indian Express

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## 5. Badri Cow

**Topic: Environment and Ecology**



**In News:** To increase the productivity of its indigenous Badri cow Uttarakhand is now planning for its genetic enhancement.



### More on the Topic:

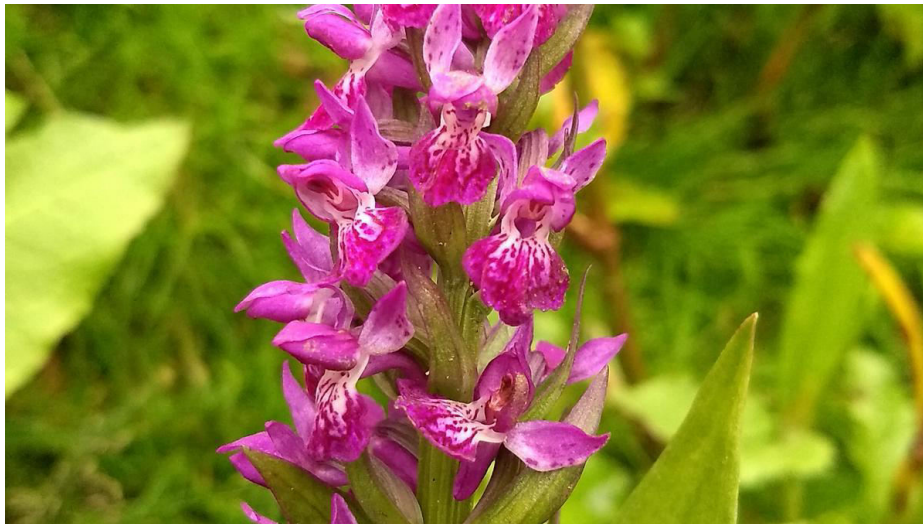
- **Sex-sorted semen and embryo transfer technology** will be harnessed to improve production of indigenous Badri cattle as part of ten-year State plan.
- They also proposed to **opt for the embryo transfer method** in order to produce more cattle of high genetic stock.
- Badri/Pahari desi cow is **a native cow of Uttarakhand**. They graze in the Himalayas on native herbs and shrubs.
- Hence its milk has **high medicinal value**. This breed has strong immunity as well.
- This breed is comparatively more resistant to diseases, mostly due to its eating habits.
- The petite Badri cow is found only in the hill districts and was earlier known as the pahadi cow.
- Its milk has **rich medicinal content and high organic value**.

Source: Business Standard

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## 6. IUCN Red list Included Himalayan Plants

Topic: Economy



**In News:** Three Himalayan medicinal plants have entered IUCN Red List.

### More on the Topic:





- Meizotropis pellita has been assessed as 'critically endangered', Fritilloria cirrhosa as 'vulnerable', and Dactylorhiza hatagirea as 'endangered'.
- **Meizotropis pellita**, commonly known as Patwa, is a perennial shrub with restricted distribution that is endemic to Uttarakhand.
- **Fritillaria cirrhosa** (Himalayan fritillary) is a perennial bulbous herb.
- **Dactylorhiza hatagirea**(**Salampanja**) is a perennial tuberous species endemic to the Hindu Kush and Himalayan ranges of Afghanistan, Bhutan, China, India, Nepal, and Pakistan.
- A recent assessment in the biodiversity hotspot shows **deforestation, habitat loss, forest fires, illegal trade and climate change** pose serious threat to the species.
- The fresh data is expected to aid conservation efforts in the region.

Source: Business Standard

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## 7. PM SVANidhi



### Topic: Government Schemes

**In News:** The Government has extended the Prime Minister Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) Scheme beyond March 2022.

#### More on the Topic:

- The scheme was launched by the Ministry of Housing and Urban Affairs in June 2020.
- The main objective of the scheme is to provide affordable Working Capital loans to street vendors to restart their livelihoods that have been adversely affected due to the Covid-19 lockdown.
- Vendors can get collateral-free working capital loans up to ₹10,000, which are repayable in monthly instalments in term of one year.
- An enhanced loan of up to ₹20,000 and ₹50,000 on the second and third times respectively, on repayment of earlier loans.

**Source: Business Standard**

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