

Interpol and metaverse



- The Interpol unveiled the first-ever 'metaverse' specifically designed for law enforcement worldwide, at its ongoing 90th General Assembly in Delhi.
- The Interpol metaverse allows the registered users to take a virtual tour of its General Secretariat headquarters in France's Lyon, interact with other officers via their avatars, and even take training courses in forensic investigation and other policing skills,
- The facility is being provided through the global police organisation's secure cloud.

THE HINDU

Energy crisis in Europe

- As winter approaches, Europe faces an energy problem.
- The numerous leaks apparently caused by explosions to the Nord Stream 1, which is an energy pipeline connecting Russia to Germany, has driven supplies to a halt.

Why is this gas field relevant?

- The region of Groningen in the Netherlands has a gas field that began operations in 1963.
- During the 1980s, the area saw numerous earthquakes minor enough to avoid large damage but big enough for local buildings to develop cracks.
- Following these quakes, the Dutch government had earlier said that it would shutter the field in response to local protests.
- The closure date was also advanced to 2022 from 2030.

Can oil or gas exploration cause earthquakes?

- Examples of human activity that could lead to 'induced seismicity' are damming of rivers to create reservoirs, oil or gas extraction, and mining.
- Fluid extraction from hydrocarbon reservoirs (rocks that hold hydrocarbons which are oil and gas) causes an increase in net effective stresses, which, when supported by the geomechanics of the rock, may lead to development of new faults and fractures.
- In the case of Groningen, the ground subsiding has been caused by extraction alone over several years.

- Such extraction causes rocks to contract as the pores get to hold less and less hydrocarbons over time.
- **Should India be concerned about gas in the Netherlands?**
- India's domestic gas price is determined from the average of four global indices viz U.S.'s Henry Hub, the U.K.'s National Balancing point, Canada's Alberta and Russian gas
- India consumed about 63.9 bcm in FY22, about 3.1 bcm more than in the previous year.
- Imports alone accounted for close to 50% of consumption, at about 30 bcm. Global production is estimated to decline from 4,109 bcm in calendar 2021 to 4,089 bcm in 2022.
- The situation would become challenging for the government unless the formula for determining domestic gas price is reviewed.
- Vulture numbers are decreasing over the last few years, with experts attributing the cause to lesser availability of prey as well as erratic weather.
- Experts also agree that the use of some Non-Steroidal Anti-Inflammatory Drugs to treat cattle has led to the crash in vulture populations across India.
- What role do vultures play in the local ecosystem?
- As scavengers, vultures help prevent the spread of many diseases and can remove toxins from entering the environment by consuming carcasses of dead cattle/wildlife before they decompose.
- What are the challenges which impact vultures in the State?
- There are multiple. For one, temple tourism in the Sigur plateau is centred primarily around vulture habitats, such as Siriyur, Anaikatty and Bokkapuram.
- Another threat is the spread of invasive weeds such as the Lantana camara in vulture-landscapes, which hinder the birds from scavenging as their large wing-spans require plenty of open area to safely land and to take to the skies in case of any major threats.
- Finally, due to the illegal tapping of water along the streams running

THE HINDU

Vulture saving in TN

- The State is home to four species of vultures the white-rumped vulture (*Gyps bengalensis*), long-billed vultures (*Gyps indicus*), the Asian king-vulture (*Sarcogyps calvus*), and the Egyptian vulture (*Neophron percnopterus*).

through these areas, possible climate change, and forest fires, the Terminalia Arjuna trees, which many vultures use as nesting sites are disappearing

- Only through a multipronged approach of increasing the amount of food available to the birds and managing invasive species can vulture numbers start rebounding,
- **What are the steps taken to protect vultures in the State?**
- State government has banned the use of diclofenac
- The, a drug, to treat cattle, while there are strict restrictions for the sale of other NSAIDs in the Nilgiris, Erode and Coimbatore districts.
- Additionally, as the vultures in the Sigur plateau utilise landscapes in neighbouring Karnataka and Kerala, experts have called for a synchronous vulture census to accurately identify vulture populations and nesting sites.

THE HINDU

Official language

- The 11th volume of the Report of the Official Language Committee submitted to the President of India on September 9, 2022.
- A special status

- The main recommendations, as reported in a section of the print media, are that Hindi should replace English as the language of examinations for recruitment to the government;
- Hindi should be the only medium of instruction in Kendriya Vidyalayas, Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), and central universities;
- It should be constitutionally binding on State governments to propagate Hindi, etc.
- The official language committee is a statutory committee constituted under Section 4 in the Official Language Act, 1963.
- Its duty is to review the progress made in the use of Hindi for the official purposes of the Union and submit a report to the President.
- The Act makes it obligatory for the President to issue directions “in accordance with the whole or any part of the report” (Section 4(4)).
- It can thus be seen that the committee’s recommendations are required to be acted upon. It is the special status of this committees.
- Article 343 of the Constitution declares that Hindi in Devanagari script shall be the official language of the Union

- Hindi was declared the official language of the Union and it was also provided that the English language will continue for 15 years from the commencement of the Constitution.
- It was further provided that, if needed, Parliament may provide by law that English will continue even after the period of 15 years.
- Accordingly, Parliament enacted the official languages Act in 1963, providing for the continuance of English indefinitely as official language along with Hindi for the official purposes of the Union and for transaction of business in Parliament.
- The reported recommendations of the official language committee pose a problem for the President in as much as the committee says that Hindi should totally replace English as medium of instruction in central universities, IIMs, IITs,
- The Green Revolution transformed the way agriculture was practiced, especially in Punjab and Haryana.
- The economics of high-yielding varieties of paddy and wheat, supported by a guaranteed buyer (the government) and minimum support prices led to a crop duopoly oriented solely around increasing caloric intakes, supplanting the earlier diversity of crops grown in the region.
- Further policy moves in subsequent decades, which included the introduction of subsidies for electricity and fertilizers, and ease of access for credit in agriculture only served to cement this duopoly.
- But this transition to a two-crop agricultural praxis, while filling godowns and feeding mouths, has been depleting the water table, increasing pesticide and fertilizer use exponentially.

THE HINDU

Stubble burning and solution

- The root cause of stubble burning can be traced back to the 1960s-70s, when to meet the urgent challenge of feeding it's rapidly growing population, India introduced several measures as part of its Green Revolution.
- It has also led to the consolidation of small farms into larger landholdings.
- In an attempt to address the growing water crisis, the Punjab and Haryana governments introduced laws around water conservation, encouraging farmers to look to the monsoon rather than groundwater to irrigate their crops.
- The shortened harvesting season that arose resulting from a not

clearly thought-out policy move brought about the need for farmers to rapidly clear their fields between the kharif and rabi crops; the quickest of these ways was to burn off the remaining stubble post-harvest.

- The repercussion of stubble burning is felt all through the Indo-Gangetic Plain (IGP) air shed, where what is burned in Punjab and Haryana has an impact on air quality all the way down to Bihar and West Bengal.

Steps

- In-situ solutions include happy seeders and bio-decomposers,
- While the ex-situ solutions include collecting and using stubble as fuel in boilers, to produce ethanol, or to simply burning it away alongside coal in thermal power plants. Economic incentives to reduce burning have also been tested with limited success.
- The entire value-chain of agriculture in the region needs to change if air quality, water, nutrition, and climate goals are to be addressed.
- In practical terms, this means substantially reducing the amount of paddy being grown in the region and replacing it with other crops that are equally high-yielding, in-demand, and agro-ecologically suitable such

as cotton, maize, pulses, and oil seeds.

THE HINDU
