

Prelim Bits 31-08-2022 & 01-09-2022 | UPSC Daily Current Affairs

Chinook Helicopters

The US Army has grounded its fleet of workhorse H-47 Chinook helicopters, after several experienced engine fires as the "suspect O-rings" used in some of the aircraft that did not meet its specifications.

- Originally known as the CH-47, the Chinook helicopters were an icon of US wars from Vietnam to the Middle East.
- They are advanced medium-lift, multi-role helicopters made by Boeing.
- It is in service across the US armed forces as well as in Britain and nearly 20 other countries.
- With two rotors, the helicopters can carry heavy loads and are well-armed for combat situations.
- They are frequently used in disaster relief missions as well.

The Indian Air Force operates its fleet of 15 Boeing-made Chinook helicopters.

Reference

1. <https://www.newindianexpress.com/world/2022/aug/31/us-army-grounds-chinook-helicopter-fleet-over-engine-fires-2493408.html>
2. <https://indianexpress.com/article/explained/explained-global/us-grounded-chinook-helicopters-problems-implications-explained-8122913/>
3. <https://www.livemint.com/news/india/us-army-grounds-entire-chinook-helicopter-fleet-all-you-need-to-know-11661925175488.html>

PARAKH

The Central Government is planning to draw up a benchmark framework 'PARAKH' to assess students at the secondary and higher secondary level to bring about "uniformity" across state and central boards.

- Currently, the centre and the states follow different standards of evaluation. This is leading to wide disparities in marks.
- Performance Assessment, Review and Analysis of Knowledge for Holistic Development (PARAKH) will **standardise the 'benchmark framework'** to bring uniformity across state and central boards.
- PARAKH will also aim to **do away with rote learning**, as mentioned in the New Education Policy (NEP) 2020.

- It is also being set up to oversee the process and conduct periodic tests like the National Achievement Survey (NAS) and State Achievement Surveys.
- The proposed regulator PARAKH will act as a constituent unit of the National Council of Educational Research and Training (NCERT).
- **Objectives** - PARAKH will be
 1. Setting norms, standards and guidelines for student assessment and evaluation for all recognised school boards of India, and
 2. Encouraging and helping school boards to shift their assessment patterns towards meeting the skill requirements of 21st century.
- PARAKH may conduct the first NAS by 2024.
- PARAKH will eventually become the national single-window source for all assessment-related information and expertise, with a mandate to support learning assessment in all forms, both nationally internationally.

Reference

1. <https://www.business-standard.com/article/current-affairs/parakh-to-bring-harmony-between-the-state-and-central-boards-in-india-122083100343.html>
2. <https://indianexpress.com/article/education/uniformity-across-all-boards-regulator-for-exam-assessment-parakh-8121746/>
3. <https://news.careers360.com/ncert-parakh-national-assessment-centre-nep-2020-state-cbse-board-exam-nas-education-ministry-world-bank>

Central Fraud Registry

The Reserve Bank of India (RBI) is considering setting up a fraud registry under the “One Nation One Ombudsman” strategy.

- The RBI’s fraud registry aims to create a database of fraudulent websites and phone numbers with locations.
- Such a database shall help prevent fraudsters from repeating the fraud because such websites or phone numbers will be blacklisted.
- It is part of RBI’s efforts to strengthen customer protection and **check digital frauds**. It aims at preventing fraudsters from using banking infrastructure.
- **Access** - Payment system participants will be provided access to this registry for near-real-time fraud monitoring.
- The aggregated fraud data will be published to educate customers on emerging risks.

Integrated Banking Ombudsman Scheme

- Under a “One Nation One Ombudsman” strategy, the Reserve Bank of India (RBI) launched the integrated banking ombudsman scheme and streamlined its grievance redressal process.
- Due to this, time taken by the banking Ombudsman offices for disposal of complaints (turnaround time or TAT) regarding banking frauds faced by customers has declined from 95 days in FY20 to 38 days at present.
- The scheme was launched for resolving customer grievances in relation to services provided by entities regulated by RBI in an expeditious and cost-effective manner.

- The fall in TAT is because of the number of process efficiencies, such as centralisation, delegation, integration and simplification, which was introduced as part of RBI - Integrated Ombudsman Scheme (RBI-IOS).
- The TAT is expected to fall further in future.
- **Data on TAT** - The number of complaints received under the banking ombudsman scheme has witnessed a gradual growth of 15.7% in 2020-21 and 9.39% in 2021-22.
- However, the rate of disposal of complaints filed at ombudsman offices has grown from 92.52% in FY20 to 97.57% in FY22.

Reference

1. https://www.business-standard.com/article/finance/rbi-to-set-up-fraud-registry-to-check-banking-frauds-executive-director-122082901144_html
2. <https://economictimes.indiatimes.com/news/economy/policy/rbi-is-planning-to-set-up-a-fraud-registry/articleshow/93863019.cms?from=mdr>
3. <https://www.livemint.com/industry/banking/to-check-banking-frauds-rbi-mulls-setting-up-of-fraud-registry-11661833024967.html>

Oncolytic Viruses

A new study suggests that the body's immune capacity against cancer - to recognise and destroy cancer cells - can be boosted by using oncolytic viruses.

- Oncolytic viruses (OVs) are a **form of immunotherapy** that uses viruses to
 1. Selectively target and kill cancer cells, and
 2. Sparing normal cells.
- The study notes that these viruses also enhance the immune system's ability to recognize and terminate cancer cells.
- The study found that T-cells infected with myxoma virus (MYXV) can lead to a type of cancer cell death not previously observed.
- It claims to uncover an unexpected synergy between T-cells and MYXV to bolster solid tumor cell autolysis that reinforces tumor clearance.
- **Autolysis** is a form of cell destruction that is useful against solid tumors, which are seen as treatment-resistant.
- Myxoma can target and kill cancer cells directly, but using myxoma-equipped T-cells works well as cancerous cells near those targeted are also destroyed. This process is called **bystander killing**.

*The study makes the case that **immunotherapy combined with virotherapy** holds potential to seek and destroy 'cold tumors' that fly under the immune system's radar.*

Reference

1. <https://indianexpress.com/article/explained/explained-health/cancer-fighting-viruses-can-boost-bodys-immune-response-study-8121721/>
2. <https://www.cancerresearch.org/en-us/immunotherapy/treatment-types/oncolytic-virus->

[therapy](#)

3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8474975/>

Anti-radiation Pills

With fears of a nuclear disaster at Ukraine's Zaporizhzhia power plant growing, the European Union has decided to pre-emptively supply 5.5 million anti-radiation pills to be distributed among residents in the vicinity.

- **Radiation Emergency** - These are unplanned or accidental events that create radio-nuclear hazard to humans and the environment.
- Such situations involve radiation exposure from a radioactive source and require prompt intervention to mitigate the threat.
- **Anti-radiation pills** - These pills are potassium iodide (KI) tablets that provide some protection in cases of radiation exposure.
- Potassium iodide is non-radioactive iodine that can be used to help block radioactive iodine (I-131), from being absorbed by the thyroid.
- **Working** - After a radiation leak, radioactive iodine floats through the air and then contaminates food, water and soil.
- While radioactive iodine deposited during external exposure can be removed using warm water and soap, the bigger risk is inhaling it.
- Internal exposure, or irradiation, occurs when radioactive iodine enters the body and accumulates in the thyroid gland.
- As thyroid gland uses iodine to produce hormones to regulate the body's metabolism, the thyroid gland has no way of telling radioactive from non-radioactive iodine.
- KI tablets rely on this to achieve 'thyroid blocking'.
- As KI contains so much non-radioactive iodine, the thyroid becomes full and cannot absorb any more iodine - either stable or radioactive - for the next 24 hours.

KI pills are preventive only and cannot reverse any damage done by radiation to the thyroid gland. Once thyroid gland absorbs radioactive iodine, those exposed are at a high risk of developing thyroid cancer.

- **Effectiveness** - Effectiveness of KI depends on how much radioactive iodine gets into the body and how quickly it is absorbed in the body.
- Also, the pills are not meant for everybody.
- They are recommended for people under 40 years of age. Pregnant and breastfeeding women are also advised to take them.
- While it can protect the thyroid against radioactive iodine, it cannot protect other organs against radiation contamination.

The US Food and Drug Administration advises against using salt or iodine supplements as they do not contain enough iodine to trigger thyroid blocking.

Reference

1. <https://indianexpress.com/article/explained/explained-health/anti-radiation-pills-nuclear-emergency-zaporizhzhia-ukraine-explained-8122949/>
2. <https://www.bbc.com/news/world-europe-62727955>
3. <https://www.cdc.gov/nceh/radiation/emergencies/ki.htm>

