

## 1. Solid Fuel Ducted Ramjet

**Topic: Science and Technology**

**In News:** DRDO has successfully flight tested Solid Fuel Ducted Ramjet (SFDR) booster.

**More on the Topic:**

- Solid Fuel Ducted Ramjet (SFDR) is a missile propulsion system. The system utilises a solid fuelled **air-breathing ramjet engine**.
- A ramjet is a form of air-breathing jet engine that **takes up oxygen from the atmosphere during flight**. Thus, **it doesn't require an oxidizer as part of the solid motor**.
- However, ramjet-powered vehicles require an assisted take-off like a rocket. It assists to accelerate it to a speed where it begins to produce thrust.
- Further, ramjets work **efficiently at supersonic speeds around Mach 3** (three times the speed of sound) and can operate up to speeds of Mach 6. But the ramjet efficiency starts to drop when the vehicle reaches hypersonic speeds.

**Significance:**

- SFDR will help both India's surface-to-air and air-to-air missiles to perform better and enhance their strike range, making them more lethal.
- With it, India can have fastest long-range missiles in two categories, providing **full-fledged and multi-layered aerial protection from hostile attacks**.
- Its successful use in missiles will mark India's entry into select club of nations that use **next-generation missile technology against manoeuvring targets, compromising effectiveness of conventional missiles**.

**Source: Indian Express**

### Getting to The Halfway Mark

DRDO has developed the booster for the missile while the **Ramjet engine** is being made with help from Russia

**More trials will be required for cutting-edge technology** that will lead to new range of weapons

**The solid fuel-based propellant tech will more than double the range and speed of missiles to take down enemy targets**

## 2. Standing Deposit Facility

**Topic: Economy**

**In News:** Reserve Bank of India (RBI) introduced the Standing Deposit Facility (SDF).

### More on the Topic:

- It is an additional tool for absorbing liquidity without any collateral.
- The main purpose of SDF is to reduce the excess liquidity in the system, and control inflation.
- Before RBI used to absorb liquidity through Reverse Repo Facility. This needs collaterals to be given.
- By removing the binding collateral constraint on the RBI, the **SDF strengthens the operating framework of monetary policy.**
- RBI do not have to give securities as collateral now.
- The SDF is also a financial stability tool in addition to its role in liquidity management.
- Both the standing facilities, the MSF (marginal standing facility) and the SDF will be **available on all days of the week**, throughout the year.

### Significance of Standing Deposit Facility:

- The “extraordinary” liquidity measures undertaken in the wake of the pandemic, combined with the liquidity injected through various other operations of the RBI, have left a liquidity overhang of the order of **Rs 8.5 lakh crore in the system.**
- This has **pushed up the retail inflation level in the system.** The RBI will engage in a gradual and calibrated withdrawal of this liquidity over a multi-year time frame in a non-disruptive manner beginning this year.

### Repo Rate:

- Repo rate is the rate at which **the central bank of a country (RBI in case of India) lends money to commercial banks** in the event of any shortfall of funds. Here, the central bank purchases the security.

### Reverse Repo Rate:

- Reverse repo rate is the rate at which the RBI borrows money from commercial banks within the country. Here Commercial banks purchases security from RBI.

**Source: Indian Express**

### PROPOSED SYSTEM

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| <ul style="list-style-type: none"> <li>▪ Banks park more than ₹7 trillion liquidity surplus with RBI</li> <li>▪ Central bank has bonds worth up to ₹9 trillion to use as collateral</li> </ul> | <ul style="list-style-type: none"> <li>▪ Standing Deposit Facility can absorb this liquidity without issuing collaterals</li> <li>▪ If introduced, it will have lower rate than reverse repo</li> </ul> |
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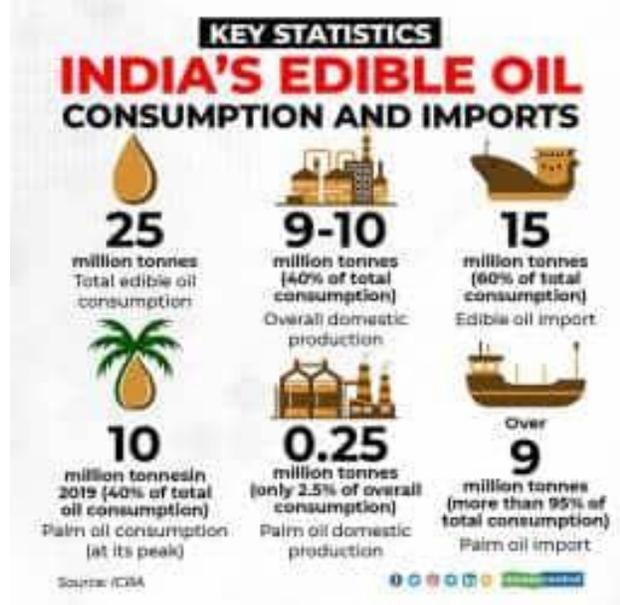
### 3.Indonesia’s Palm Oil Crisis and Implication for India

**Topic: Economy**

**In News:** The world’s largest producer and exporter of palm oil is facing domestic shortages, leading to price controls and export curbs.

**More on the Topic:**

- Indonesia produces nearly 60% of the total global output of Palm oil.
- It is also the world’s No. 1 exporter of the commodity, at 29 mt, followed by Malaysia (16.22 mt).
- Palm oil is an edible vegetable oil derived from the fruit of the oil palms.
- The oil is used in food manufacturing, in beauty products, and as biofuel.



**Why There is Palm oil crisis in the world:**

- The possible reason has to do supply disruptions. Ukraine and Russia together account for nearly 80% of the global trade in sunflower oil, quite comparable to the 90% share of Indonesia and Malaysia in palm. Russia Ukraine war led to disruption in other cooking oils, especially sunflower and soybean.
- Another factor is linked to petroleum, more specifically the use of palm oil as a bio-fuel.
- The Indonesian government has, since 2020, made 30% blending of diesel with palm oil mandatory as part of a plan to slash fossil fuel imports.

**Implications for India:**

- Out of India’s annual imports of 14-15 mt, the lion’s share is of palm oil (8-9 mt), followed by soyabean (3-3.5 mt) and sunflower (2.5).
- Indonesia has been India’s top supplier of palm oil, though it was overtaken by Malaysia in 2021-22.
- **The curbs will impact India adversely.**
- The central government has taken steps to cool prices, including reducing import duties on palm, soybean oil and sunflower oil, and limiting inventories to prevent hoarding.
- **India is trying to boost domestic production to overcome its dependence on imports.** The government launched a \$1.5 billion initiative called the National Mission on Edible Oils-Oil Palm last year to improve self-sufficiency.

**Source: Indian Express**

## 4. Animation, Visual Effects, Gaming and Comics (AVGC) Promotion Task Force

### Topic: Governance

**In News:** An Animation, Visual Effects, Gaming and Comics (AVGC) Promotion Task Force has been constituted with representatives from the centre, states and industry.

### More on the Topic:

- The new task force is aimed at placing India at the forefront of content creation while promoting the AVGC sector in the country.
- It is created under **The Information and Broadcasting Ministry**.
- The task force would frame a national AVGC policy as well as Recommend national curriculum framework for Graduation, Postgraduate and Doctoral courses in AVGC related sectors.
- It would also **facilitate skilling initiatives** in collaboration with academic institutions, vocational training centres & Industry.
- It would look in to **Boosting employment opportunities as well as facilitating promotion and market development activities** to extend the global reach of the Indian AVGC Industry,
- It will **enhance exports and recommend incentives to attract FDI** in the AVGC sector.

### Importance of the AVGC Sector:

- It will prepare India to play a larger role in **building Metaverse**, help in catering to the Indian market and in meeting global demand.
- A metaverse is a **network of 3D virtual worlds focused on social connection and it can be defined as a simulated digital environment that uses Augmented Reality (AR), Virtual Reality (VR), and blockchain**, along with concepts from social media, to create spaces for rich user interaction mimicking the real world.
- India is the second largest base of online gamers in the world after China.
- **AVGC Sector has immense potential to contribute to India' GDP**. Online casual gaming, which forms a large chunk of the total gaming revenue, is projected to grow at a



Compound Annual Growth Rate (CAGR) of about 29% over the next four years to reach revenues of Rs 169 billion by FY25.

- The potential for job opportunities in the AVGC sector is remarkable. It would create around 70,000 to 1.2 lakh job opportunities in the coming years.

Source: Livemint

## 5. Nearfield communication Technology

**Topic: Science and Technology**

**In News:** Google Pay has recently launched a new feature in India, 'Tap to pay for UPI', in collaboration with Pine Labs. The feature makes use of Near Field Communication (NFC) technology.

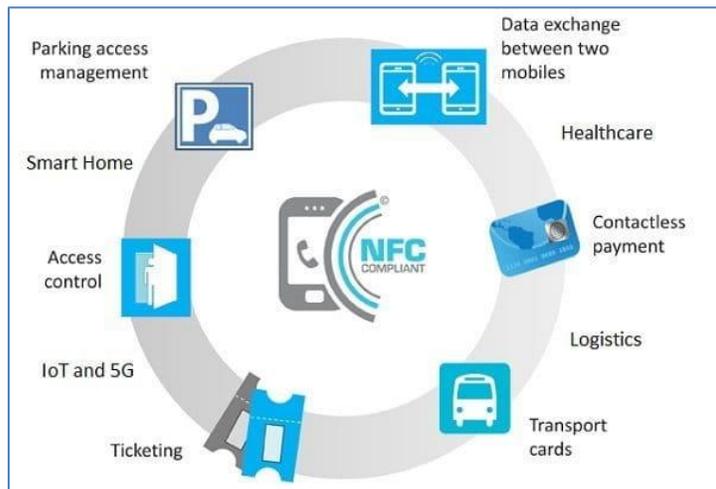
**More on the Topic:**

- It will allow **users with UPI accounts configured on Google Pay to make payments just by tapping their NFC-enabled Android smartphones** on any Pine Labs Android POS terminal.
- Once users tap their phones on the POS terminal, it will automatically open the Google pay app with the payment amount pre-filled.
- Users can then verify the amount and merchant name and authenticate the payment, using their UPI PIN.
- The process is much faster compared to scanning a QR code or entering the UPI-linked mobile number which has been the conventional way till now.

**About NFC technology:**

- NFC is a short-range wireless connectivity technology that allows NFC-enabled devices to communicate with each other and transfer information quickly and easily with a single touch.
- NFC transmits data through **electromagnetic radio fields**, to enable communication between two devices. Both devices must contain NFC chips, as transactions take place within a very short distance.
- NFC-enabled devices must be either physically touching or within a few centimetres from each other for data transfer to occur.

Source: PIB



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## 6. Banarasi Pashmina

### Topic: Art and Culture

**In News:** The Khadi and Village Industries Commission (KVIC) has launched the premium Pashmina products prepared by the highly skilled Khadi weavers of Varanasi.



### More on the Topic:

- This is for the first time that Pashmina products are being produced outside the Himalayan highlands of Leh-Ladakh and Jammu & Kashmir.
- Pashmina production begins with collection of raw Pashmina wool from Ladakh and which is brought to Delhi for de-hairing, cleaning and processing.
- The processed wool, in the form of roving, is brought back to Leh where it is handspun into yarn by women Khadi artisans on modern Charkhas provided by KVIC.
- The finished yarn is then sent to Varanasi where it is woven by trained Khadi weavers into final Pashmina products.

### Changthangi or Pashmina goat:

- It is a special breed of goat indigenous to the high altitude regions of **Ladakh in Jammu and Kashmir**.
- They are raised for **ultra-fine cashmere wool**, known as Pashmina once woven.
- These goats are generally domesticated and reared by nomadic communities called the **Changpa in the Changthang region of Greater Ladakh**.

Source: PIB

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