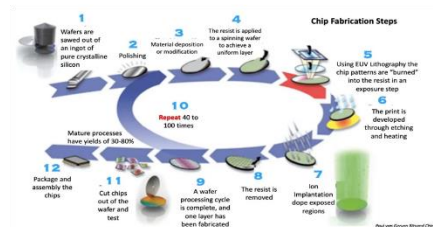


### WHAT IS THE TECHNOLOGY BEHIND MANUFACTURING A SEMICONDUCTOR CHIP?

**Why in News?** As semiconductor chip manufacturing capabilities are currently limited to very few regions in the world, India has realised the importance of investing in chip manufacturing infrastructure.

**What is a Semiconductor Chip?** A semiconductor has properties between a conductor and an insulator. In its purest form a semiconductor is a very weak conductor of electricity. However, its electrical properties can be changed by adding ‘dopants’ and complex circuits can be ‘printed’ on the semiconductor. **The transistor**, one of the earliest electronic components and an extremely versatile device, is built using a semiconductor.

#### What is Semiconductor Chip Fabrication Technology?



A semiconductor chip is manufactured much like a postage stamp. A sheet of stamps is printed on a piece of paper and then each individual stamp is cut out. Similarly, an array (typically 300-400) of chips are printed on a circular piece of semiconductor (called a **wafer**). This is then diced to

create individual chips. Each individual chip has to be packaged in a protective covering with tiny wires routing from the device to the boundary of the package (to supply power/ for feeding in and reading out signals and data)

**What does India’s Semiconductor Ecosystem Look Like?** Recently, the TATA group has partnered with Taiwan’s PSMC to set-up a 300mm wafer fabrication plant in Gujarat. It will roll out its first 28nm chip in 2026. Semiconductor manufacturing being an essentially interdisciplinary endeavour, could present opportunities to a wider array of professionals (process and control engineers, data scientists, etc).

## MID-DAY MEAL SCHEME

An Indonesian delegation is exploring collaboration with India on various initiatives including mid-day meal scheme and digital inclusion.



### About Mid-Day Meal scheme:

- It is the largest **school feeding programme** of its kind in the world which covers children across **Classes 1 to 8** (age group 6 to 14).
- **Background:**
  - In 1925, a Mid Day Meal Programme was introduced for disadvantaged children in **Madras Municipal Corporation**.
  - It was started in India on 15th August 1995 as the '**National Programme of Nutritional Support to Primary Education (NP-NSPE)**'.
  - It was renamed the '**National Programme of Mid-Day Meal in Schools**' in October 2007, also known as the Mid-Day Meal (MDM) Scheme.
- Under the scheme, a hot cooked meal per day is provided to all children (studying in Class I to VIII) enrolled in government schools, local body schools, government-aided schools, special training centres (STC), maktabs and madrasas supported under the **Sarva Shiksha Abhiyan**.
- **Objectives:**
  - **Increase the enrolment** in the schools of the children who belong to disadvantaged sections of society.
  - **Increase the attendance** and to retain the children studying in classes I to VIII in government and government-aided schools.
  - To give **nutritional support** to the children studying in the elementary stage, especially in the drought-affected areas.
  - To **address hunger and malnutrition** and improve socialisation among castes.
- **Implementation:** Each State/UT has to set up **State Steering-cum Monitoring Committees(SSMCs)** at the State, District and Block level to oversee its implementation.

- **Funding:** It is a **Centrally Sponsored Scheme**. Hence, the cost is shared between the Centre (60%) and States (40%) with states and UTs with a legislature, and 90:10 with the Northeastern states, Jammu and Kashmir, Himachal Pradesh and Uttarakhand, while the **Centre bears 100%** of the costs in UTs **without legislature**.
- **Nodal Ministry:** Ministry of Education
- In September 2021 it was renamed as the **Pradhan Mantri POSHAN Scheme**.

## WHO WAS MANGAL PANDEY AND WHAT WAS THE LEGACY OF THE REVOLT OF 1857?



**Why in News?** Mangal Pandey, who was hanged to death by the Company 167 years ago on April 8, 1857, had no idea that his mutiny would spark the Revolt of 1857, a watershed moment in modern Indian history.

**Who was Mangal Pandey and Why did he Mutinied?** Mangal Pandey was a soldier of the **34th Bengal Native Infantry**. He **refused to use the newly introduced Enfield rifle**, the cartridges (which had to be bit open before use) of which were believed to be made of animal fat (beef and pork). On March 29, 1857, Pandey fired at his Senior Sergeant Major. He was hanged on **April 8, 1857**, in Barrackpore and his regiment was disbanded.

**What was the Linkage Between Mangal Pandey's Mutiny and the Discontent of Awadh? The kingdom of Awadh** had been treacherously annexed by the British in **1856**. Almost every agricultural family in the Awadh kingdom had a representative in the army. The **confiscation of the villages of taluqdars** during the land revenue settlement of 1856 caused **outrage**. Mangal Pandey (who belonged to Awadh) reflected the dissatisfaction that British authority had caused among peasant families.

**How did the 1857 Revolt Begun?** News of the Sepoys' mutiny (first in Barrackpore and then in the 7th Awadh Regiment) had reached Meerut. **On May 11, 1857**, a band of Sepoys from Meerut marched to the Red fort and proclaimed the elderly Mughal emperor - Bahadur Shah II - the leader of the revolt (**Shah-en-shah-i-Hindustan**).

**How the Revolt of 1857 Came to an End?** Delhi fell on **September 20, 1857**, and Bahadur Shah was deported to Burma. **The Rani of Jhansi died fighting on June 17, 1858**. Nana Saheb escaped to Nepal in 1859. **Tantiya Tope** (carried out guerrilla warfare until April 1859) was captured and put to death by the British.

**What was the Legacy of the Revolt of 1857?** It changed the nature of British rule in India. Queen Victoria was declared the Sovereign of British India (by the Government of India Act 1858), **transferring all powers of the Company to the Crown**. The **Queen's Proclamation** unveiled a new policy of perpetual support for the native Princes and non-intervention in matters of religious beliefs in India.

## CONSUMER CONFIDENCE SURVEY (CCS)

### Why in News?

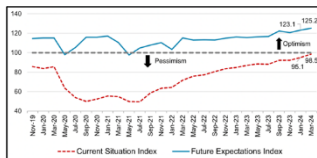
The latest bi-monthly survey, called Consumer Confidence Survey, conducted by the Reserve Bank of India (RBI) unveiled a remarkable surge in consumer confidence, reaching its peak since mid-2019.

### About Consumer Confidence Survey (CCS):

- The Reserve Bank of India (RBI) conducts a Consumer Confidence Survey to measure consumers' perceptions of the prevailing economic situation.
- The survey is conducted across various cities and measures consumer confidence on parameters such as the economy, employment, price, income, and spending.
- The survey consists of questions regarding consumers' sentiments over various factors in the current situation and future.

## Key Findings of the Survey:

- According to the survey findings, respondents demonstrated a positive assessment across all parameters.



- **Current Situation Index (CSI):**

- The CSI measures overall consumer sentiment regarding the present economic situation.

- It saw a rise of 3.4 points, compared to the previous survey. The CSI is at 98.5, marking its highest level since mid-2019.
- **Future Expectations Index (FEI):**
  - The FEI analyses consumer sentiment for the next 12 months.
  - It witnessed a substantial uptick, hitting its peak since mid-2019, underscoring a positive outlook for the forthcoming year.
- CSI and FEI are compiled on the basis of net responses on the economic situation, income, spending, employment and the price level for the current period as compared with one year ago and a year ahead, respectively.
- **Households' Inflation Expectation Survey:**
  - The share of households expecting overall prices and inflation to increase over the next three months and one year, has slightly increased.
  - This is for general prices as well as for most of the product groups, when compared to the previous survey round.
- Households' sentiments on general economic situation and employment prospects recorded notable improvements for both the current period as well as the upcoming year.
- The survey also highlighted improvements in households' sentiments regarding the general economic situation and employment prospects, both for the present and future years.

## Conclusion:

The RBI Governor has highlighted bright prospects for investment activity in India, citing factors such as:

- Upturn in the private capex cycle,
  - Robust government capital expenditure,
  - Healthy balance sheets of banks and corporates, and
  - Rising capacity utilization.
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## WHAT IS AUKUS?



The U.S., Britain and Australia are set to begin talks on bringing new members into their AUKUS security pact.

### About AUKUS:

- It is a **trilateral security partnership** between the **United Kingdom, the United States of America and Australia** agreed in 2021.
- It is intended to strengthen the ability of each government to support security and defense interests, building on longstanding and ongoing bilateral ties.
- It consists of **two key pillars**.
  - **Pillar 1** focuses on **supporting Australia to acquire its first conventionally armed, nuclear-powered submarine** (It does not involve the transfer of nuclear weapons to Australia.)
  - **Pillar 2** focuses on **cooperation in eight advanced military capability areas:** artificial intelligence (AI), quantum technologies, innovation, information sharing, and cyber, undersea, hypersonic and counter-hypersonic and electronic warfare domains.
- **Submarine Component:**
  - It is designed to **equip Australia with nuclear-powered attack submarines (SSNs)**. In total, Australia will end up with eight of the new nuclear submarines, called **SSN-AUKUS**.

- These submarines will be based on a **British design but have American technology** or an American combat system.
  - AUKUS will **make Australia the seventh country** in the world to be **armed with nuclear-powered submarines** and the second, after the United Kingdom, with whom the United States has shared this technology.
  - These countries, however, made it clear that their aim is not to arm the new submarines with nuclear weapons. This is because Australia is a signatory to the Nuclear Non-proliferation Treaty (NPT), which bans it from acquiring or deploying nuclear weapons.
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## WHAT IS SUVIDHA PORTAL?

The Election Commission recently said its Suvidha portal has received over 73,000 applications since the Lok Sabha polls were announced.



### About Suvidha Portal:

- It is developed by the **Election Commission of India (ECI)** to ensure a level playing field upholding the democratic principles of free, fair and transparent elections.
- It streamlined the process of **obtaining and acting upon requests for permissions** and facilities from political parties and candidates during the election period.
- It caters to a diverse range of permission requests transparently on the **First in First Out principle**. **Political parties and candidates** can seamlessly submit permission requests online from anywhere, at any time. Offline submission options are available.
- It caters to **permissions for organising rallies, opening temporary party offices**, door-to-door canvassing, video vans, helicopters, obtaining vehicle permits, distributing pamphlets.
- It is supported by a robust IT platform, **managed by nodal officers** across various state departments. It also **has a companion app** that enables applicants to **track the status** of their requests in real time.

- Furthermore, the permission data available on the portal serves as a valuable **resource for scrutinising election expenditures**, contributing to greater accountability and integrity in the electoral process.
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## WHAT IS WINDFALL PROFIT?

Farmers are miffed that some shipments allowed by the government to markets like the UAE have been sold at a pittance, yielding windfall profits for selected importers.



### About Windfall Profit:

- It refers to a **sudden increase in profits**, typically caused by an unexpected event or circumstance. Such profits are generally well above historical norms and may occur due to factors such as a price spike or supply shortage that are either temporary in nature or longer-lasting.
- Windfall profits are **generally reaped by an entire industry sector** but can also find their way to an individual company or individual. Among the reasons that windfall profits can arise are a sudden change in market structure, an executive order from the government, a court ruling, or a dramatic shift in trade policy.
- In terms of an individual, a windfall profit/gain could be a spike in income as a result of a specific, one-time event, such as winning the lottery or inheriting a valuable property.
- Businesses typically **use these profits** in part to increase dividends, buy back shares, reinvest in the business for future growth, or reduce debt.

### Windfall Tax:

- **Windfall profits** often receive a windfall tax.
  - It is a **tax levied** by governments against certain industries when economic conditions allow those industries to experience significantly above-average profits.
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## AMENDMENTS IN PREVENTION OF MONEY LAUNDERING ACT (PMLA)

With the **advent of global terrorism in the 1990s**, there was a focus internationally on choking terror financing and the movement of illicit money across borders.

### Two Key Amendments in the PMLA:

- Although the law has been changed multiple times over the years, it was through amendments made in the PMLA in **2009 and 2012** that the **ED acquired the powers to take coercive action against politicians**.
- **In 2009**, ‘Criminal conspiracy’ under (Section 120B) the Indian Penal Code (IPC) was added to the PMLA’s schedule among various other offences.
  - This allowed the ED to **enter any case** where a conspiracy is alleged, **even if the principal offence is not part of the PMLA’s schedule**.
  - **For example**, this helped ED to build its land-grabbing case against former Jharkhand CM, who is currently in Ranchi jail.
  - In 2009, the ED also got **international jurisdiction** as far as tracking laundered money was concerned.
- **In 2012**, the PMLA was amended to move **the Prevention of Corruption Act, 1988 (PC Act)** to Part A of the statute’s schedule from Part B.
  - This was a significant move as **it applied stringent bail conditions** on those accused of corruption.
  - **For example**, if the public prosecutor opposes bail, the court must be convinced that there were reasonable grounds to believe that the accused was guilty and would commit an offence if granted bail.
  - **Part A** of the statute covered offences such as waging war against the nation, trafficking of drugs, the PC Act, the Wildlife (Protection) Act, the Immoral Traffic (Prevention) Act, the IT Act, etc.