

17 August, 2024

Process of Election in India

Context: The first Jammu and Kashmir Assembly election in a decade will be held in three phases on September 18, 25, and October 1, 2024, the Election Commission of India announced.

➤ Definition of Elections

- Elections are a formal process where citizens of a country or political entity choose their representatives or leaders through voting.
- Elections are fundamental to democracy, embodying "Popular Sovereignty," where government legitimacy derives from the consent of the governed.



➤ Time of Elections

- Lok Sabha and State Legislative Assembly elections occur every five years unless earlier due to the premature dissolution of houses.
- Elections must be held within six months of the last session of a dissolved house.

➤ Constitutional Provisions on Premature Dissolution

- **Article 85:** The President can dissolve the Lok Sabha anytime, typically when the Union Government loses confidence without an alternative.
- **Article 174:** The Governor can dissolve the State Legislative Assembly under similar conditions.

➤ Process of Election in India

- **Announcement of Election Schedule by the ECI**
 - The Election Commission of India announces the election schedule a few weeks before the process begins, including dates for various election events.
 - The Model Code of Conduct (MCC) comes into effect immediately after the announcement.
- **Issue of Notification by the ECI**
 - The ECI issues a notification calling upon the electorate to elect Members of a House, starting the formal election process.
- **Filing of Nominations by the Candidates**
 - Candidates file nominations in their chosen constituencies after the ECI issues the notification.
 - Nominations are scrutinized, and valid candidates can withdraw within two days.

• Oath or Affirmation of Candidates

- Candidates must make an oath or affirmation before an authorized officer after filing nominations.

• Election Campaign

- Candidates start campaigning after filing nominations, with campaigns ending 48 hours before polling closes.
- Political parties and candidates must abide by the Model Code of Conduct during campaigns.

• Election Manifestos

- Political parties release manifestos outlining their policies, programs, and promises during election campaigns.

• Allocation of Symbols

- After nominations, candidates from national and state parties are assigned symbols, with others allotted free symbols.

• Polling Days

- Election polling in India occurs over multiple days across constituencies to maintain law and order.

• Voting Procedure

- Voting in Lok Sabha and State Legislative Assembly elections is conducted using Electronic Voting Machines (EVMs).
- Voting is secret, with polling stations set up in public institutions.

• Supervising Elections

- The ECI deploys election observers to ensure fair campaigning and free voting.
- Election Expenditure Observers monitor campaign spending.

• Counting of Votes

- Votes are counted under the supervision of Returning Officers and ECI Observers, with the candidate receiving the most votes declared the winner.

• Constitution of House

- After elections, the ECI compiles a list of elected members and issues a notification for constituting the House.

• Election Petitions

- Election Petitions can be filed by any elector or candidate if malpractice is suspected, with cases tried by the High Court.

➤ Electronic Voting Machine (EVM)

- EVMs are used to record votes, replacing traditional ballot papers and boxes.
- **Advantages of EVM**
 - Eliminates invalid votes.
 - Speeds up vote counting.
 - Reduces paper use, saving trees.
 - Lowers printing costs.

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Small Satellite Launch Vehicle

Context: ISRO's smallest launch vehicle, the SSLV, successfully placed the EOS-08 and SR-0 satellites into a precise 475-km orbit during its third and final developmental flight on Friday.

➤ Overview of SSLV

- **Small Satellite Launch Vehicle (SSLV):** Developed by ISRO as a small-lift launch vehicle.
- **Payload Capacity:**
 - 500 kg to Low Earth Orbit (LEO) at 500 km altitude.
 - 300 kg to Sun-synchronous orbit at 500 km altitude.
- **Key Features:** Low cost, fast turnaround, launch-on-demand flexibility, minimal infrastructure needs.

➤ Development and Milestones

- **Inception:** Design for SSLV was completed by the Vikram Sarabhai Space Centre (VSSC) in December 2018.
- **Cost:** Development cost is ₹169.07 crore; manufacturing cost per unit is expected between ₹30-35 crore.
- **First Static Fire Test (ST01):** Conducted on 18 March 2021, but was unsuccessful due to oscillations and nozzle disintegration.
- **Second Static Fire Test (ST02):** Conducted on 14 March 2022, met required test objectives.

➤ Operational History

- **SSLV-D1 (7 August 2022)**
 - **Outcome:** Mission failed to achieve its objectives due to a software malfunction.
 - **Mission Details:**
 - ❖ Carried EOS 02 (135 kg) and AzaadiSAT (8 kg).
 - ❖ Issue: Accelerometer anomaly during the second stage led to failure in achieving the desired orbit.
- **SSLV-D2 (10 February 2023)**
 - **Outcome:** Successful mission, placing three satellites into planned orbits.
 - **Remedial Actions:**
 - ❖ Modified second-stage detachment system to reduce vibrations.
 - ❖ Redesigned navigation using NavIC data.
 - ❖ Added five new hardware components and upgraded electronics.
- **SSLV-D3 (16 August 2024)**
 - **Outcome:** Successful final developmental flight.
 - **Mission Details:**
 - ❖ Launched EOS-08 into a 475 km circular orbit.
 - ❖ Demonstrated repeatable flight performance, marking the completion of SSLV's development phase.

• SSLV Specifications

▪ Vehicle Characteristics:

- ❖ **Height:** 34 meters
- ❖ **Diameter:** 2 meters
- ❖ **Mass:** 120 tonnes

▪ Propulsion:

- ❖ First three stages use HTPB-based solid propellant.
- ❖ **Fourth stage:** Velocity-Trimming Module (VTM) with thrusters for control and velocity adjustments.

• Future Plans and Production

▪ Dedicated Launch Site:

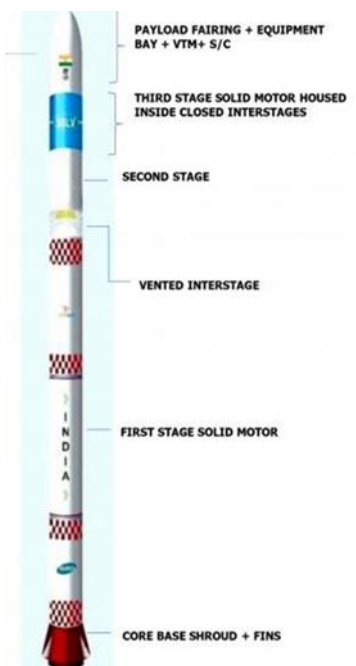
Kulasekharapatnam, Tamil Nadu, will handle future SSLV launches to Sun-synchronous orbit.

▪ Technology Transfer:

SSLV production and launch operations will be managed by a consortium of Indian firms and NewSpace India Limited (NSIL).

- **Cost Efficiency:** Projected launch cost is between ₹30-35 crore, making SSLV one of the most affordable rockets in its class.

- **Industry Adoption:** Several Indian companies are acquiring SSLV technology, with the rocket capable of being integrated and launched within 24 hours.



Surrogacy (Regulation) Act, 2021

Context: The Bombay High Court reaffirmed that sperm or egg donors cannot claim parental rights or be recognized as biological parents of children born through their gametes.

➤ Definition of Surrogacy

- Surrogacy is defined as a practice where a woman carries and gives birth to a child for an intending couple, with the intention of handing over the child to the couple after birth.

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➤ Types of Surrogacy

- **Altruistic Surrogacy:** Involves no monetary compensation to the surrogate mother, except for medical expenses and insurance during pregnancy.
- **Commercial Surrogacy:** Involves monetary benefit or reward beyond basic medical expenses and insurance, and is prohibited under the Act.

➤ Conditions for Permitting Surrogacy

- Surrogacy is permitted for intending couples suffering from proven infertility.
- The practice must be altruistic, not for commercial purposes.
- Surrogacy cannot be used for producing children for sale, prostitution, or other exploitation.
- Surrogacy is allowed for specific conditions or diseases as per regulations.

➤ Eligibility Criteria for Intending Couples

- Must obtain a 'certificate of essentiality' and a 'certificate of eligibility' from the appropriate authority.
- **Certificate of Essentiality:** Requires proof of infertility, a court order for parentage and custody, and insurance coverage for the surrogate mother.
- **Certificate of Eligibility:**
 - The couple must be Indian citizens, married for at least five years, and meet specific age criteria (wife: 23-50 years, husband: 26-55 years).
 - The couple should not have any surviving children, with exceptions for children who are mentally or physically challenged.

➤ Eligibility Criteria for Surrogate Mother

- Must be a close relative of the intending couple.
- Must be a married woman with a child of her own.

- Age must be between 25 to 35 years.
- Can act as a surrogate only once in her lifetime.
- Must have a certificate of medical and psychological fitness.
- The surrogate mother cannot donate her gametes.

➤ Other Provisions of the Surrogacy Regulation Act

- **National and State Surrogacy Boards:**
 - The central and state governments will establish National and State Surrogacy Boards to oversee surrogacy practices.
 - The National Surrogacy Board will advise on policy matters, lay down the code of conduct for surrogacy clinics, and supervise State Surrogacy Boards.
- **Parentage and Abortion Rules:**
 - A child born through surrogacy will be considered the biological child of the intending couple.
 - Abortion of a surrogate child requires written consent from the surrogate mother and authorization from the appropriate authority, in compliance with the Medical Termination of Pregnancy Act, 1971.
 - The surrogate mother can withdraw from surrogacy before embryo implantation.
- **Offenses and Penalties:**
 - Offenses include undertaking or advertising commercial surrogacy, exploiting the surrogate mother, abandoning or exploiting the surrogate child, and selling or importing embryos or gametes for surrogacy.
 - Penalties include imprisonment for up to 10 years and a fine of up to 10 lakh rupees.

NEWS IN BETWEEN THE LINES

Public Distribution System



Recently, the Enforcement Directorate (ED) arrested two individuals, including a Trinamool Congress leader, in connection with a ₹10,000 crore public distribution system (PDS) scam in West Bengal.

About Public Distribution System:

- Public Distribution System (PDS) is an **Indian Food Security System** under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- It was evolved to manage food scarcity through **affordable** distribution of food grains.
- This scheme was launched in June **1947**.
- It operates under the **Central and State Governments**, with distinct roles.

Evolution of PDS in India:

- Public Distribution System was introduced during **World War II** for rationing.
- In the **1960s**, the Public Distribution System expanded to tackle food shortages and the **Food Corporation of India (FCI)** was created.
- The Revamped Public Distribution System (**RPDS**) launched in **1992**.
- The Targeted Public Distribution System (**TPDS**) was initiated in **1997**, focusing on the poor.
- Antyodaya Anna Yojana (**AAY**) was introduced in **2000** for the poorest **BPL** families.
- The National Food Security Act, **2013**, ensured that the right to food became a legal right through the Targeted Public Distribution System (**TPDS**).

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Krishi-Decision Support System



Recently, the Krishi-Decision Support System (DSS) was introduced by the Union Agriculture Ministry to enhance agricultural decision-making.

About Krishi-Decision Support System:

- The Krishi-Decision Support System (DSS) is a **digital geo-spatial platform**.
- The platform **provides comprehensive data** including **weather patterns, soil conditions, crop health, crop acreage** and advisories.
- It **utilizes satellite images**, weather information, reservoir storage, groundwater levels and soil health data.
- It facilitates **crop mapping** and **analysis of parcel-level crop maps** to understand cropping patterns and promote sustainable agriculture.
- It helps in **monitoring drought conditions**, thereby aiding in effective drought management.

Forever Chemicals



Recently, American researchers achieved a major breakthrough by developing a method to trace the origin and destination of forever chemicals.

About the Forever Chemicals:

- Forever chemicals are a **class of synthetic chemicals known as per- and polyfluoroalkyl substances (PFAS)** that are resistant to degradation and can remain in the environment for hundreds or thousands of years.
- They are also known as "forever chemicals" because **they don't naturally break down over time**.
- Per- and polyfluoroalkyl substances were **first developed in the 1940s** and are used in many consumer products, such as **nonstick pans, water-resistant textiles** and fire suppression foams, because they can repel water and grease.
- They are also useful in applications like **detergents, food packaging** and **heat resistance**.
- However, per- and polyfluoroalkyl substances can migrate into the soil, water and air during production and use and can accumulate in the bodies of people and animals who are repeatedly exposed to them.
- Potential health risks of PFAS include cancers (testicular, kidney, liver, and pancreatic), **reproductive problems, weakened childhood immunity, low birth weight**, endocrine disruption, increased cholesterol, developmental delays in children, and reduced immune system function.

Place in News

Syria

Recently, India has sent 1400kg of anti-cancer drugs as a humanitarian assistance to Syria.

Syria (Capital: Damascus)

Located: Syria, officially known as the Syrian Arab Republic, is a country in West Asia located in the Eastern Mediterranean and the Levant.

Boundaries: Syria shares its border with **Iraq** (East and Southeast), the Mediterranean Sea (West), **Turkey** (North), **Jordan** (South) and **Israel** and **Lebanon** (Southwest).

Physical features:

- The highest point in Syria is **Mount Hermon** (Jabal al-Sheikh), located in the Anti-Lebanon mountain range, near the border with Lebanon.
- The major rivers in Syria are the **Euphrates, Orontes, Khabur** and **Barada**.



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- Syria is rich in several minerals, including **phosphates, gypsum, marble** and **asphalt**.
- The country also has reserves of **oil and natural gas**.

Membership: Syria is a member of several international organizations, including the **United Nations (UN)**, **Arab League**, **Non-Aligned Movement (NAM)** and the **Organization of Islamic Cooperation (OIC)**.

POINTS TO PONDER

- Which Mumbai stations have recently been added to the Amrit Bharat Station Scheme? – **Dahisar and Kandivali**
- According to recent findings, how are prokaryotes expected to respond to climate change in the marine environment?
– **They are remarkably resilient and may dominate the marine environment**
- Which Indian state has become the first to launch a Gross Environment Product Index (GEPI)? – **Uttarakhand**
- On which occasion did the President of India approve 103 Gallantry awards for Armed Forces and Central Armed Police Forces personnel? – **Independence Day 2024**
- Which unique orchid species was recently discovered in Fambonglho Wildlife Sanctuary, Sikkim? – **Gastrodia indica**

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