



## Financial Inclusion Index



01

**Released by**

- Reserve Bank of India (RBI)
- Without any 'base year'
- Introduced in: **2021**
- Published in: **July every year**

02

**Areas Covered**

- Banking
- Investments
- Insurance
- Postal and Pension Sector

03

**Parameters**

- Access (**35%**)
- Usage (**45%**)
- Quality (**20%**)

**Financial Inclusion Index**

**2022 Findings**

- India's Financial Inclusion Index has **improved to 56.4 in 2022 from 53.9 in 2021**

**Initiatives for Financial Inclusion**

- Pradhan Mantri Jan Dhan Yojana
- Digital Identity (Aadhaar)
- National Center for Financial Education (NCFE)
- Center for Financial Literacy (CFL) Project

**What is Financial Inclusion?**

- Ensuring access to financial products and services needed by vulnerable groups at an affordable cost in a transparent manner by institutional players.
- This concept was first introduced in **India in 2005** by the RBI.
- World Bank considers financial inclusion a key enabler to reduce extreme poverty and boost shared prosperity.

04

05

06



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## Manipur to Implement the NRC

**For Prelims:** National Register of Citizens, Inner Line Permit, Protection of Indigenous People

**For Mains:** Reasons for Manipur to Implement NRC

### Why in News?

Recently, the **Manipur Assembly has resolved to implement the [National Register of Citizens \(NRC\)](#) and establish a **State Population Commission (SPC)**.**

- The decision has come after at least 19 **apex tribal organisations wrote to the Prime Minister demanding NRC** and other mechanism to **insulate the [indigenous people](#)** from the “ever-increasing number of non-local residents”.

### What is the National Register of Citizens?

- NRC is a register **prepared in respect of each village, showing the houses or holdings in a serial order** and indicating against each house or holding the number and names of persons staying therein.
- The register was **first prepared after the 1951 Census of India** and since then it has not been updated until recently.
  - It has been **updated in Assam only for now and the government plans to update it nationally** as well.
- **Purpose:** To separate “illegal” immigrants from “legitimate” residents.
- **Nodal Agency:** Registrar General and Census Commissioner India.

### Why is Manipur Pushing for NRC?

- According to data presented in the Manipur Assembly, the population of Manipur has increased significantly from 1971 to 2011, pointing to a **strong possibility of a huge [influx of non-Indians](#), especially Myanmar Nationals primarily Kukis-Chin Communities**.
  - Apart from the Kuki-Chin groups, pro-NRC groups have identified “Bangladeshis” and **[Muslims from Myanmar](#)** who have “occupied the constituency of Jiribam and scattered in the valley areas” as well as Nepalis (Gurkhas) who have “risen in tremendous number” as “**outsiders**”.
- The northeastern States have been paranoid about “outsiders”, “foreigners” or “alien cultures” **swamping out their numerically weaker indigenous communities**.
  - Manipur, home to **three major ethnic groups, is no different**.
  - These ethnic groups are the **non-tribal Meitei people** and the tribal **[Naga](#) and [Kuki-Zomi groups](#)**.
- There has been a **history of conflict among these three groups**, but the NRC issue has seemingly put the Meiteis and the Nagas on the same page.
  - They claim that an NRC is necessary because the political crisis in neighbouring **[Myanmar](#), triggered by the military coup in February 2021, has forced hundreds of people into the State** from across its 398-km international border.
  - A majority of those who fled or are fleeing belong to the **Kuki-Chin communities, ethnically related to the Kuki-Zomi people in Manipur** as well as the **[Mizos](#) of Mizoram**.

## What are the Other Protective Mechanisms in Manipur?

- In December 2019, Manipur became the fourth northeastern State to be brought under the [Inner-Line Permit \(ILP\) system](#) after **Arunachal Pradesh, Mizoram and Nagaland**.
  - The ILP - a temporary official travel document to allow inward travel of an Indian citizen into a protected area, was **implemented under the British-era Bengal Eastern Frontier Regulation**.
  - However, in less than two years later, an umbrella organisation that spearheaded the ILP movement said the system was flawed and that **Manipur needed a stronger and more effective mechanism for protecting indigenous populations**.
- Following the “intrusion of immigrants” from Bangladesh (East Pakistan formerly), Myanmar and Nepal, **a pass or permit system for Manipur was introduced**, which was abolished later on in 1950.
- In June 2021, Manipur government approved **1961 as the base year for identifying the “natives”** for the purpose of ILP.
  - Most groups are not happy with this cut-off year and insist on 1951 as the cut-off year for the NRC exercise.
- In 2021, the Ministry of Home Affairs (MHA) directed Nagaland, Manipur, Mizoram, Arunachal Pradesh and Border Guarding Force (BGF), i.e. [Assam rifles](#), to check illegal influx from Myanmar into India.
  - Similar Instructions were Issued in August 2017 and February 2018.

## What is the Status of the NRC Elsewhere in the Northeast?

- Assam is the **only State in the region that undertook an exercise to [update the NRC of 1951 with 24<sup>th</sup> March, 1971](#)**, as the cut-off date for citizenship of a person.
- Nagaland attempted a similar exercise called [RIIN \(Register of Indigenous Inhabitants of Nagaland\)](#) **in June 2019** to primarily sift the **indigenous Nagas from the non-indigenous Nagas**.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Mains

**Q.** Analyze internal security threats and transborder crimes along Myanmar, Bangladesh and Pakistan borders including Line of Control (LoC). Also discuss the role played by various security forces in this regard. (2020)

[Source: TH](#)

## The Privileges of Members of Parliament

**For Prelims:** Vice President of India, Enforcement Directorate (ED), Central Bureau of Investigation (CBI), Income Tax department (IT), Article 105

**For Mains:** The Privileges of Members of Parliament

## Why in News?

Recently, the [Vice President of India](#) highlighted the wrong assumptions of Members of Parliament about the [Parliamentary privileges](#), that action can't be taken against them by investigating agencies during a Parliamentary session.

- There have been protests by some political parties against the alleged misuse of central agencies like the [Enforcement Directorate \(ED\)](#), [Central Bureau of Investigation \(CBI\)](#), and the [Income Tax department \(IT\)](#) by the government to frame political rivals.

## What are the Parliamentary Privileges?

### ▪ About:

- Parliamentary privileges are special rights, immunities and exemptions enjoyed by the two Houses of Parliament, their committees and their members.
  - These privileges are defined in [Article 105 of the Indian Constitution](#).
- Under these privileges, the members of Parliament are exempted from any civil **liability (but not criminal liability)** for any statement made or act done in the course of their duties.
  - The privileges are claimed only when the person is a member of the house.
  - As soon as s/he ends to be a member, the privileges are said to be called off.
- **Parliament has not made any special law** to exhaustively codify all the privileges. They are **rather based on five sources**:
  - Constitutional provisions
  - Various laws made by Parliament
  - Rules of both the Houses
  - Parliamentary conventions
  - Judicial interpretations

### ▪ Privileges:

- **Freedom of Speech in Parliament:**
  - The freedom of speech and expression guaranteed to a citizen under [Article 19\(2\)](#) is different from the freedom of speech and expression provided to a member of the parliament.
  - It has been guaranteed under Article 105(1) of the Indian constitution. But the freedom is subject to rules and orders which regulate the proceedings of the parliament.
  - **Limitations:**
    - Freedom of speech should be in accordance with the constitutional provisions and subject to rules and procedures of the parliament, as **stated under Article 118 of the Constitution**.
    - Under **Article 121 of the Constitution**, the members of the parliament are restricted from discussing the conduct of the judges of the [Supreme Court](#) and the High Court.
- **Freedom from Arrest:**
  - The members enjoy freedom from arrest in any **civil case 40 days before and after the adjournment of the house and also when the house is in session**.
  - **No member can be arrested from the limits of the parliament without the permission of the house** to which s/he belongs so that there is no hindrance in performing their duties.
  - If the detention of any members of the parliament is made, **the chairman or the speaker should be informed by the concerned authority, of the reason for the arrest**.
    - But a member can be arrested outside the limits of the house on criminal charges against him under the [Preventive Detention act](#), [the Essential Services Maintenance Act \(ESMA\)](#), [the National Security Act \(NSA\)](#), or any such act.
- **Right to Prohibit the Publication of Proceedings:**
  - **Article 105(2)** of the Constitution, **no person shall be held liable for publishing any reports, discussions etc. of the house under the authority**

### of the member of the house.

- For paramount and national importance, it is essential that the proceedings should be communicated to the public to aware them of what is going on in the parliament.
- **Right to Exclude Strangers:**
  - The members of the house have the **power and right to exclude strangers** who are not members of the house from the proceedings. This right is very **essential for securing free and fair discussion** in the house.

## What Did the Vice President Hold?

- According to the Vice President under the Article 105 of the Constitution, the Members of Parliament enjoy certain privileges so that they can perform their parliamentary duties without any hindrance.
  - One of the privileges is that a **Member of Parliament cannot be arrested in a civil case**, 40 days before the commencement of the Parliamentary session or Committee meeting, and 40 days thereafter.
    - This privilege is already incorporated under **Section 135A of the [Civil Procedure Code, 1908](#)**.
  - However, in **criminal matters, Members of Parliament are not on a different footing than a common citizen**.
    - It means that a Member of Parliament does not enjoy any immunity from being arrested in a criminal case, during the session, or otherwise.

## What is the View of Supreme Court?

- The Supreme Court in the **State of Kerala Vs. K. Ajith and Others (2021)**, observed, that **“privileges and immunities are not gateways to claim exemptions** from the general law of the land, particularly as in this case, the criminal law which governs the action of every citizen.”
- In July 2021, the **[Supreme Court rejected Kerala government’s plea to withdraw criminal cases against its MLAs](#)** who were charged in the assembly.
  - **The Supreme court stated that Parliamentary Privileges are Not Gateways of Immunity and** the legislators who indulge in vandalism and general mayhem cannot claim parliamentary privilege and immunity from criminal prosecution.

## Way Forward

- The Parliamentary privileges are conferred on the members for the smooth functioning of the parliament. But these rights should always be **in conformity with the [fundamental rights](#)** because they are our representatives and work for our welfare.
  - If the privileges are not in accordance with the fundamental rights, then the very essence of democracy for the protection of the rights of the citizen will be lost.
- It is the duty of the parliament not to violate any other rights which are guaranteed by the constitution. The members should also use their privileges wisely and not misuse them.

[Source: TH](#)

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## PESA Act

**For Prelims:** Provisions of PESA Act, Article 244(1), Tribal Policy in India

**For Mains:** PESA Act Related Issues, Benefits of implementing PESA Act

## Why in News?

Electoral Parties are trying to woo tribals in Gujarat by making promises to strictly implement the [Panchayat Extension to Scheduled Areas \(PESA\) Act, 1996](#).

- Gujarat notified the State PESA Rules in January 2017 and made them applicable in 4,503 gram sabhas under 2,584 village panchayats in 50 tribal talukas in eight districts of the state.
- However, the Act has not been **enforced in letter and spirit**.
- Six states (Himachal Pradesh, Andhra Pradesh, Telangana, Rajasthan, Gujarat, Maharashtra) have formed the PESA laws, and Chhattisgarh would become the seventh state if the rules are enacted.

## What is the PESA Act?

- **About:**
  - The PESA Act was enacted in 1996 “to provide for the extension of the provisions of Part IX of the Constitution relating to the Panchayats to the Scheduled Areas”.
  - **Part IX, comprising Articles 243-243ZT** of the Constitution, contains provisions **relating to municipalities and cooperative societies**.
- **Provisions:**
  - Under the Act, **Scheduled Areas are those referred to in Article 244(1)**, which says that the provisions of the **Fifth Schedule shall apply to the Scheduled Areas and Scheduled Tribes in states other than Assam, Meghalaya, Tripura, and Mizoram**.
  - The Fifth Schedule **provides for a range of special provisions for these areas**.
  - Ten states — Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, and Telangana — have notified Fifth Schedule areas that cover (partially or fully) several districts in each of these states.
- **Objectives:**
  - To **ensure self-governance through [Gram Sabhas \(village assemblies\)](#)** for people living in the **Scheduled Areas**.
  - It recognises the **right of tribal communities, who are residents of the [Scheduled Areas](#)**, to govern themselves through their own systems of self-government, and also acknowledges their traditional rights over natural resources.
  - Empowers Gram Sabhas to play a key role in approving development plans and controlling all social sectors.

## What is the Significance of Implementing the Act?

- **Democratic Decentralisation:** PESA empowers gram sabhas to play a key role in approving development plans and controlling all social sectors. This includes management of:
  - Resources over jal, jangal, zameen (water, forest and land)
  - **[Minor forest produce](#)**
  - Human resources: Processes and personnel who implement policies
  - Managing local markets
  - Preventing land alienation
  - Regulating intoxicants among other things
- **Preserving Identity:** The powers of gram sabhas include maintenance of cultural identity and tradition, control over schemes affecting the tribals, and control over natural resources within the area of a village.
- **Conflict Resolution:** The PESA Act thus enables gram sabhas to maintain a safety net over their rights and surroundings against external or internal conflicts.
- **Public Watchdog:** The gram sabha would have the powers to monitor and prohibit the manufacturing, transport, sale and consumption of intoxicants within their village limits.

## What are the Issues Related to PESA?

- **Partial Implementation:** The state governments are supposed to enact state laws for their Scheduled Areas in consonance with this national law.
  - This has resulted in the partially implemented PESA.
  - The partial implementation has worsened self-governance in Adivasi areas, like in Jharkhand.
- **Administrative Hurdles:** Many experts have asserted that PESA did not deliver due to the lack of clarity, legal infirmity, bureaucratic apathy, absence of political will, resistance to change in the hierarchy of power, and so on.
- **Followed in Letter Rather than Spirit:** Social audits conducted across the state have also pointed out that in reality different developmental schemes were being approved on paper by Gram Sabha, without actually having any meeting for discussion and decision making.

## How are Tribals and their Rights Protected in India?

- In India, most of the **tribes are collectively identified under Article 342 (1&2) as "Scheduled Tribes"**.
- Their right to self-determination is **guaranteed by Part X: The Scheduled and Tribal Areas - Article 244: Administration of Scheduled Areas and Tribal Areas.**
- That is, [Fifth and Sixth Schedules](#) of the Indian Constitution.
- The Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996 or PESA.
- The [Tribal Panchsheel Policy](#)
- [Scheduled Tribes and Other Traditional Forest Dwellers \(Recognition of Forest Rights\) Act, 2006](#) concerns the rights of forest-dwelling communities to land and other resources.

## Way Forward

- PESA, if it is implemented in letter and spirit, will rejuvenate the dying self-governance system in the tribal area.
- This will also give an opportunity to correct the loopholes in the traditional governance system and make it a more gender-inclusive and democratic space.

[Source: IE](#)

## World Tribal Day

**For Prelims:** Scheduled Tribes, Sixth Schedule, National Family Health Survey, Government Initiative

**For Mains:** National Report on the State of India's Tribal People's Health, Government's Initiative

## Why in News?

**The International Day of the World's Indigenous People** is observed on **9 August each year** to raise awareness and protect the rights of the **world's indigenous population**.

- On 9<sup>th</sup> August 2018, the first [National Report on the State of India's Tribal People's Health](#) was submitted to the Government of India by the Expert Committee on [Tribal Health](#).



## What is World Tribal Day?

### ▪ About:

- The day recognizes the **first meeting of the United Nations Working Group on Indigenous Populations in Geneva in 1982.**
  - It has been celebrated every year since 1994, in accordance with the declaration by the [United Nations](#).
- To date, numerous indigenous peoples experience extreme **poverty, marginalization, and other human rights violations.**

### ▪ Theme:

- The theme for 2022 is **“The Role of Indigenous Women in the Preservation and Transmission of Traditional Knowledge”.**

## What do we need to know about the Report?

### ▪ About:

- The **13-member committee** was jointly appointed by the Ministry of Health and Family Welfare and the Ministry of Tribal Affairs.
- It took **five years of research** for the committee to bring out the evidence and provide a **true picture of the state of tribal people of the country.**

### ▪ Findings:

- **Geographical Location:**
- Tribal people are concentrated in **809 blocks in India.**
  - Such areas are designated as the [Scheduled Areas](#).
- Unexpected finding was that **50% of India’s tribal population** (around 5.5 crore) live **outside the Scheduled Areas**, as a scattered and marginalised minority.
- **Health:**
  - The health status of tribal people has certainly improved during the last 25 years.
  - **Mortality Rate:**
    - **Under-five child mortality rate** has declined from **135 (Deaths per 1000) in 1988 (National Family Health Survey NFHS-1) to 57 (Deaths per 1000) in 2014 (NFHS-4).**
      - The % of **excess of under-five mortality** among **STs compared to others has widened.**
  - **Malnutrition:**
    - [Child malnutrition](#) is 50% higher in tribal children (42% compared to 28% in others).
  - **Malaria and Tuberculosis:**
    - [Malaria](#) and [tuberculosis](#) are **three to eleven times** more common among the tribal people.
    - Though the tribal people constitute **only 8.6% of the national population**, 50% malaria deaths in India occur among them.
  - **Public Health Care:**
    - Tribal people heavily depend on government-run public health care institutions, such as primary health centres and hospitals.
      - There is a 27% to 40% deficit in the number of such facilities, and 33% to 84% deficit in medical doctors in tribal areas.
      - Government health care for the tribal people is starved of funds as well as of human resources.
  - **Tribal Sub-Plan (TSP) Audit:**
    - It is an official policy of allocating and spending an additional financial outlay equal to the percentage of the ST population in the State.
    - As estimated for 2015-16, annually Rs 15,000 crore should be additionally spent on tribal health.
      - However, it has been completely flouted by all States.
      - No accounts or accountability exist on policy.
        - No one knows how much was spent or not spent.

## What were the Major Recommendations of the Committee?

- **Firstly**, the committee suggested launching a **National Tribal Health Action Plan** with a goal to bring the **status of health and healthcare** at par with the respective State averages in the next 10 years.
- **Second**, the committee suggested **nearly 80 measures to address the 10 priority health problems**, the **health care gap**, the **human resource gap** and the **governance problems**.
- **Third**, the committee suggested **allocation of additional money** so that the per capita **government health expenditure** on tribal people becomes **equal to the stated goal of the National Health Policy (2017)**, i.e., **2.5% of the per capita GDP**.

## What Steps has the Government of India taken for Tribal Welfare?

- [Anamaya](#)
- [1000 Springs Initiative](#)
- [Pradhan Mantri Adi Darsh Gram Yojna \(PMAAGY\)](#)
- [TRIFED](#)
- [Digital Transformation of Tribal Schools](#)
- [Development of Particularly Vulnerable Tribal Groups](#)
- [Pradhan Mantri Van Dhan Yojana](#)
- [Eklavya Model Residential Schools](#)

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Prelims

**Q. With reference to India, the terms 'Halbi, Ho and Kui' pertain to: (2021)**

- (a) dance forms of Northwest India
- (b) musical instruments
- (c) pre-historic cave paintings
- (d) tribal languages

**Ans: (d)**

### **Explanation:**

- Odisha has a unique place in India due to its vast population of tribals residing in the state. 62 tribal communities live in Odisha which is 22.8% of the total population of Odisha.
- Odisha's tribal language is divided into 3 main language families. They are Austro-Asiatic (Munda), Dravida and Indo-Aryan. Every tribe has its own language and language family. The languages include:
  - Austro-Asiatic: Bhumij, Birhor, Rem (Bonda), Gatah (Didyai), Gutab (Gadaba), Sora(Saora), Gorum (Parenga), Khadia, Juang, Santali, Ho, Mundari, etc.
  - Dravida: Gondi, Kui-Kondh, Kuvi-Kondh, Kisan, Koya, Olari, (Gadaba) Parja, Peng, Kudukh (Oraon) etc.
  - Indo Aryan: Bathudi, Bhuyan, Kurmali, Sounti, Sadri, Kandhan, Aghria, Desia, Jharia, Halbi, Bhatri, Matia, Bhunjia, etc.
- Out of these languages only 7 have scripts. They are Santali (Olchiki), Saora( Sorang Sampeng), Ho (Warangchiti), Kui (Kui Script), Oraon (Kukhud Tod), Mundari (Bani Hisir), Bhumij (Bhumij Anl). Santali language has been included in the 8<sup>th</sup> Schedule of the Indian Constitution.
- Therefore, option (d) is the correct answer.

**Q. Consider the following statements about Particularly Vulnerable Tribal Groups (PVTGs) in India: (2019)**

1. PVTGs reside in 18 States and one Union Territory.
2. A stagnant or declining population is one of the criteria for determining PVTG status.

3. There are 95 PVTGs officially notified in the country so far.
4. Irular and Konda Reddi tribes are included in the list of PVTGs.

**Which of the statements given above are correct?**

- (a) 1, 2 and 3  
(b) 2, 3 and 4  
(c) 1, 2 and 4  
(d) 1, 3 and 4

**Ans: (c)**

**Explanation:**

- In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups. The Commission stated that more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development. In this context, in 1975, the GoI initiated to identify the most vulnerable tribal groups as a separate category called Primitive Vulnerable Tribal Groups.
- 75 tribal groups have been categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTGs). PVTGs reside in 18 States and the Union Territory of Andaman and Nicobar Islands. Hence, statement 1 is correct and statement 3 is not correct.
- The criteria followed for determination of PVTGs are a pre-agriculture level of technology, a stagnant or declining population, extremely low literacy, and a subsistence level of the economy. Hence, statement 2 is correct.
- Irular (Tamil Nadu) and Konda Reddi (Andhra Pradesh) tribes are included in the list of PVTGs. Hence, statement 4 is correct.
- Therefore, option (c) is the correct answer.

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**Mains**

**Q.** What are the two major legal initiatives by the State since Independence addressing discrimination against Scheduled Tribes (STs)? **(2017)**

**Source:** [TH](#)

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## **Pradhan Mantri Adi Adarsh Gram Yojana**

**For Prelims:** Pradhan Mantri Adi Adarsh Gram Yojana, Special Central Assistance to Tribal Sub-Scheme, Safeguards for STs, Government Initiatives

**For Mains:** Schemes for welfare for STs, Safeguards for STs, Government Initiatives

### **Why in News?**

Recently, Government has modified the earlier scheme of **'Special Central Assistance to Tribal Sub-**

**Scheme (SCA to TSS)** with nomenclature '**Pradhan Mantri Adi Adarsh Gram Yojana (PMAAGY)**' for implementation during 2021-22 to 2025-26.

## What is Pradhan Mantri Adi Adarsh Gram Yojana?

- **About:**
  - It supplements the efforts of State Governments for **development and welfare of tribal people** by extending **Special Central Assistance** as an additive to the **State Tribal Sub-Plan (TSP)**.
  - It aims at **mitigating gaps** and providing **basic infrastructure** in villages with significant **tribal population** in convergence with funds available under different schemes in **Central Scheduled Tribe Component**.
- **Revision of Scheme Guidelines:**
  - To ensure all round development of the selected villages, so that they can indeed become '**Adarsh Grams**', the **SCA to TSS Scheme** was also revised to capture the **Gaps in critical socio-economic** 'Monitorable Indicators' as part of various sectors/domains.
    - These domains include **water and sanitation, education, health and nutrition, agricultural best practices** etc. amongst others.
- **New Approach for Implementation:**
  - The identification of needs or Gaps with regard to the '**Monitorable Indicators**' are based on a **Need Assessment exercise**.
  - The '**Village Development Plan**' (**VDP**) is based on the data collected as part of the Need Assessment exercise.
  - PMAAGY provides the platform for convergent implementation of other Schemes with the aim to achieve saturation in the various domains.
- **Objectives:**
  - Preparing **Village Development Plan** based on the needs, potential, and aspirations.
  - Maximizing the **coverage of individual/family benefit schemes** of the Central / State Governments.
  - Improving the **infrastructure** in vital sectors like **health, education, connectivity and livelihood**.
  - The scheme envisions to mitigate gaps in prominent **8 sectors of development:**
    - **Road connectivity** (Internal and Inter village /block)
    - **Telecom connectivity** (Mobile /internet)
    - **School**
    - **Anganwadi Centres**
    - **Health Sub-Centre**
    - **Drinking water facility**
    - **Drainage**
    - **Solid waste management**

## What are the Basic Safeguards Provided by Indian Constitution for Scheduled Tribes?

- **The Constitution of India** does not endeavor to define the term 'tribe', however, the term 'Scheduled Tribe' was inserted in the Constitution through **Article 342 (i)**.
  - It lays down that 'the **President** may, by public notification, specify the tribes or tribal communities or parts of or groups within the tribes or tribal communities or parts which shall, for the purposes of this Constitution, be deemed to be Scheduled Tribes.
  - **The Fifth Schedule of the Constitution** provides for the setting up a **Tribes' Advisory Council** in each of the States having Scheduled Areas.
- **Educational & Cultural Safeguards:**
  - **Article 15(4):** Special provisions for advancement of other backward classes (it includes STs).
  - **Article 29:** Protection of Interests of Minorities (it includes STs).
  - **Article 46:** The State shall promote, with special care, the educational and economic interests of the weaker sections of the people, and in particular, of the Scheduled Castes, and the Scheduled Tribes, and shall protect them from social injustice and all forms of

exploitation.

- **Article 350:** Right to conserve distinct Language, Script or Culture.

▪ **Political Safeguards:**

- **Article 330:** Reservation of seats for STs in **Lok Sabha**.
- **Article 332:** Reservation of seats for STs in State **Legislatures**.
- **Article 243:** Reservation of seats in **Panchayats**.

▪ **Administrative Safeguard:**

- **Article 275:** It provides for the **grant of special funds** by the Union Government to the State Government for promoting the **welfare of Scheduled Tribes** and providing them with a **better administration**.

## What are some other Initiatives for Tribal Population?

▪ **TRIFED:**

- **The Tribal Cooperative Marketing Development Federation of India (TRIFED)** came into existence in 1987. It is a **national-level apex organization** functioning under the administrative control of the Ministry of Tribal Affairs.
  - The main aim of this drive is **to activate the Van Dhan Vikas Kendras (VDVKs) in the villages**.

▪ **Digital Transformation of Tribal Schools:**

- **Ministry of Tribal Affairs (MTA)** inked a **Memorandum of Understanding (MoU)** with Microsoft **to support the digital transformation of schools** such as **Eklavya Model Residential Schools (EMRS)** and **Ashram Schools**.

▪ **Development of Particularly Vulnerable Tribal Groups:**

- Ministry of Tribal Affairs has implemented the scheme of **“Development of PVTGs”** which covers 75 **Particularly Vulnerable Tribal Groups (PVTGs)** for their comprehensive socio-economic development.

▪ **Pradhan Mantri Van Dhan Yojana:**

- The **‘Sankalp Se Siddhi’** initiative, also known as **‘Mission Van Dhan’**, was introduced by the central government in 2021, in line with the Prime Minister's aim to establish a **sustainable livelihood for India's tribal population**.

▪ **Eklavya Model Residential Schools:**

- EMRS is a scheme for making **model residential schools** for Indian tribals (ST- Scheduled Tribes) across India. It started in the year 1997-98.
- **The Eklavya Model Residential School** in Shinde (Nashik) has been planned by the Ministry Tribal Affairs to give impetus to quality education in nearby tribal areas.

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  - Austro-Asiatic: Bhumij, Birhor, Rem (Bonda), Gatah (Didyai), Gutab (Gadaba), Sora(Saora), Gorum (Parenga), Khadia, Juang, Santali, Ho, Mundari, etc.

- Dravida: Gondi, Kui-Kondh, Kuvi-Kondh, Kisan, Koya, Olari, (Gadaba) Parja, Peng, Kudukh (Oraon) etc.
- Indo Aryan: Bathudi, Bhuyan, Kurmali, Sounti, Sadri, Kandhan, Aghria, Desia, Jharia, Halbi, Bhatri, Matia, Bhunjia, etc.
- Out of these languages only 7 have scripts. They are Santali (Olchiki), Saora( Sorang Sampeng), Ho (Warangchiti), Kui (Kui Script), Oraon (Kukhud Tod), Mundari (Bani Hisir), Bhumij (Bhumij Anl). Santali language has been included in the 8<sup>th</sup> Schedule of the Indian Constitution.
- Therefore, option (d) is the correct answer.

**Q. Consider the following statements about Particularly Vulnerable Tribal Groups (PVTGs) in India: (2019)**

1. PVTGs reside in 18 States and one Union Territory.
2. A stagnant or declining population is one of the criteria for determining PVTG status.
3. There are 95 PVTGs officially notified in the country so far.
4. Irular and Konda Reddi tribes are included in the list of PVTGs.

**Which of the statements given above are correct?**

- (a) 1, 2 and 3  
 (b) 2, 3 and 4  
 (c) 1, 2 and 4  
 (d) 1, 3 and 4

**Ans: (c)**

**Explanation:**

- In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups. The Commission stated that more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development. In this context, in 1975, the GoI initiated to identify the most vulnerable tribal groups as a separate category called Primitive Vulnerable Tribal Groups.
- 75 tribal groups have been categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTGs). PVTGs reside in 18 States and the Union Territory of Andaman and Nicobar Islands. Hence, statement 1 is correct and statement 3 is not correct.
- The criteria followed for determination of PVTGs are a pre-agriculture level of technology, a stagnant or declining population, extremely low literacy, and a subsistence level of the economy. Hence, statement 2 is correct.
- Irular (Tamil Nadu) and Konda Reddi (Andhra Pradesh) tribes are included in the list of PVTGs. Hence, statement 4 is correct.
- Therefore, option (c) is the correct answer.

**Mains**

**Q. What are the two major legal initiatives by the State since Independence addressing discrimination against Scheduled Tribes (STs)? (2017)**

**Source: PIB**

# Quit India Movement

**For Prelims:** Quit India Movement, Mahatma Gandhi, Freedom Struggle, Indian national Army.

**For Mains:** Successes and Failures of Quit India Movement.

## Why in News?

On 8th Aug 2022, India completed **80 years of [Quit India Movement](#)** also known as **August Kranti**.

## What was the Quit India Movement?

- On 8<sup>th</sup> August 1942, [Mahatma Gandhi](#) called to end **British rule and launched the Quit India Movement** at the session of the All-India Congress Committee in Mumbai.
- Gandhiji gave the call **“Do or Die” in his speech delivered at the Gowalia Tank Maidan**, now popularly known as **August Kranti Maidan**.
- Aruna Asaf Ali popularly known as the '**Grand Old Lady**' of the Independence Movement is **known for hoisting the Indian flag at the Gowalia Tank Maidan** in Mumbai during the Quit India Movement.
- The slogan **‘Quit India’ was coined by Yusuf Meherally**, a socialist and trade unionist who also served as Mayor of Mumbai.
  - Meherally had also coined the slogan **“Simon Go Back”**.

## What caused the Movement?

- **Failure of [Cripps Mission](#):** The immediate cause for the movement was the collapse of Cripps Mission.
  - Under Stafford Cripps, the mission was sent **to resolve the Indian question of a new constitution and self-government**.
  - It failed because it **offered India not complete freedom but the Dominion Status** to India, along with the [partition](#).
- **Indian Involvement in World War II without prior consultation:**
  - The British assumption of unconditional support from India to the British in [World War II](#) was not taken well by the [Indian National Congress](#).
- **Prevalence of anti-British Sentiment:**
  - The anti-British sentiments and **demand for full-independence had gained popularity** among Indian masses.
- **Centralisation of Many Small Movements:**
  - The two decades of mass movement which were being conducted on a much more radical tone under the leadership of the various associated and affiliated bodies of the Congress, like All India Kisan Sabha, Forward Bloc etc. **had already prepared the ground for the movement**.
- **Shortage of Essential Commodities:**
  - The economy was **also in shatters as a result of World War II**.

## What were the Demands of the Movement?

- The demand was **to end the British rule in India with immediate effect** to get the cooperation of Indians in World War-II against fascism.
- There was a demand **to form a provisional government** after the withdrawal of the Britishers.

## What were the Phases of Movement?

- **First Phase:**
  - **First Phase**, urban revolt, marked by strikes, boycott and picketing (protesting), which

were quickly suppressed.

- There were **strikes and demonstrations all over the country** and workers provided the support by not working in the factories.
- Gandhiji was soon **imprisoned at Aga Khan Palace in Pune** and almost all leaders were arrested.
- **Second Phase:**
  - The focus **shifted to the countryside, which witnessed a major peasant rebellion**, marked by destruction of communication systems, such as railway tracks and stations, telegraph wires and poles, **attacks on government buildings or any other visible symbol of colonial authority.**
- **Third Phase:**
  - The last phase witnessed the **formation of national governments or parallel governments** in isolated pockets (Ballia, Tamluk, Satara etc.)

## What were the Successes and Failures of the Movement?

### ▪ Successes:

- **Rise of Future Leaders:**
  - Underground activities were taken by leaders that included **Ram Manohar Lohia, J.P. Narayan, Aruna Asaf Ali, Biju Patnaik, Sucheta Kriplani**, etc which later emerged as prominent leaders.
- **Women Participation:**
  - **Women took active participation** in the movement. Female leaders like **Usha Mehta helped set up an underground radio station** which led to the awakening about the movement.
- **Rise of Nationalism:**
  - A greater **sense of unity and brotherhood emerged** due to the Quit India Movement. Many students **dropped out of schools and colleges, people gave up their jobs** and withdrew money from the banks.
- **Paved the way for Independence:**
  - While the Quit India campaign was crushed in 1944, with the **British refusing to grant immediate independence, saying it could happen only after the war had ended**, they came to the important realization that India was ungovernable in the long run due to the cost of World War II.
  - It changed the **nature of political negotiations with the British, ultimately paving the way for India's independence.**

### ▪ Failures:

- **Brutal Repression:**
  - The movement **saw violence in some places** which was not premeditated.
  - The movement was **violently suppressed by the British** – people were shot, lathi-charged, villages burnt and enormous fines imposed.
  - Over 1,00,000 people were arrested and the **government resorted to violence in order to crush the agitation.**
- **Lack of Support:**
  - **Muslim League, the Communist Party of India and the Hindu Mahasabha did not support** the movement. The Indian bureaucracy also did not support the movement.
    - The League was **not in favour of the British leaving India** without partitioning the country first.
    - The Communist party **supported the British since they were allied with the Soviet Union.**
    - The Hindu Mahasabha **openly opposed the call for the Quit India Movement** and boycotted it officially under the apprehension that the movement would create internal disorder and would endanger internal security during the war.
  - Meanwhile, Subhas Chandra Bose, organised the **Indian National Army** and the **Azad Hind government** from outside the country.
  - Many Congress members like **C Rajagopalachari resigned from the provincial legislature** as they did not favour Mahatma Gandhi's idea.



## UPSC Civil Services Examination Previous Year Question (PYQ)

**Q. With reference to 8<sup>th</sup> August, 1942 in Indian history, which one of the following statements is correct?**

- (a) The Quit India Resolution was adopted by the AICC.
- (b) The Viceroy's Executive Council was expanded to include more Indians.
- (c) The Congress ministries resigned in seven provinces.
- (d) Cripps proposed an Indian Union with full Dominion Status once the Second World War was over.

**Ans: (a)**

**Q. With reference to Indian freedom struggle, consider the following events: (2017)**

1. Mutiny in Royal Indian Navy
2. Quit India Movement launched
3. Second Round Table Conference

**What is the correct chronological sequence of the above events?**

- (a) 1 - 2 - 3
- (b) 2 - 1 - 3
- (c) 3 - 2 - 1
- (d) 3 - 1 - 2

**Ans: (c)**

- Royal Indian Navy Mutiny: It broke out in February 1946, when a section of non-commissioned officers and sailors known as Ratings revolted against British officers. It started as a strike demanding better food and accommodation. The mutiny came to an end with the intervention of Sardar Vallabhbhai Patel and Muhammad Ali Jinnah. The mutineers surrendered on 23rd February 1946.
- Quit India Movement: Mahatma Gandhi decided to initiate a new phase of the movement called Quit India Movement against the British in August 1942. He gave the slogan, 'do or die' to the masses and asked them to protest non-violently. Gandhi and other leaders were jailed at once, but the movement took its own course.
- Second Round Table Conference: A Second Round Table Conference was held in London during September 1931 to December 1931. Here, Gandhi represented the Indian National Congress (INC). It was the only Round Table Conference in which INC participated. Therefore, option (c) is the correct answer.

**Source: PIB**

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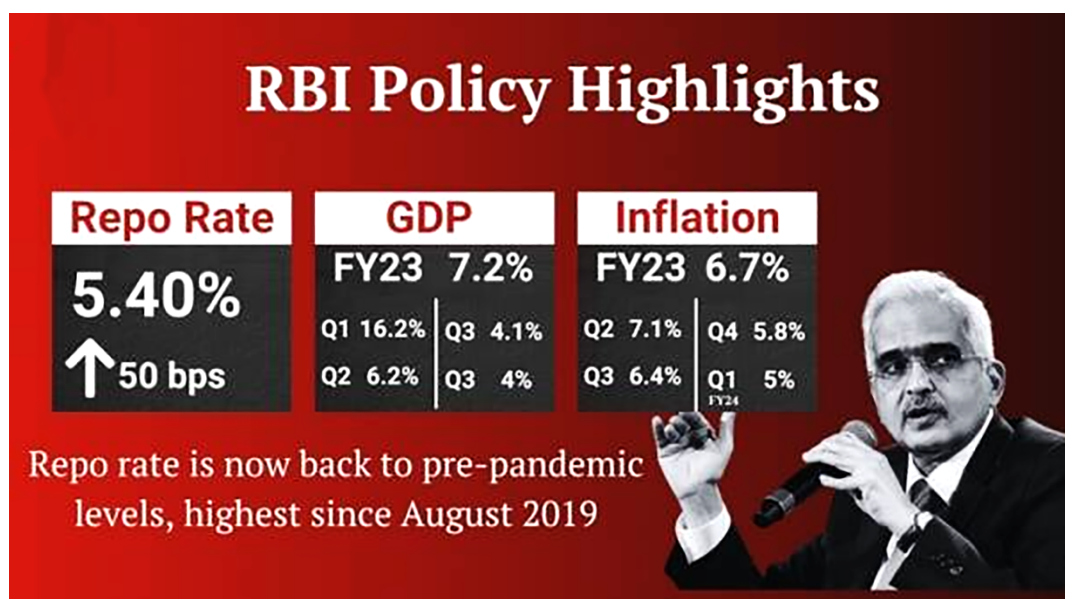
## Monetary Policy Review: RBI

**For Prelims:** RBI, Monetary Policy Committee (MPC), Instruments of Monetary Policy, Various Policy Stances of RBI

**For Mains:** Monetary Policy, Growth & Development, Monetary policy and its instruments

## Why in News?

Recently, the [Reserve Bank of India \(RBI\)](#) in its [Monetary Policy Committee \(MPC\)](#) Review announced a 50-basis point hike in the repo rates thereby taking the cumulative rate hike over the last three months to 140 basis points.



## What are the Highlights?

### ▪ Key Rates:

- **Policy Repo Rate: 5.40%**
  - Repo rate is the rate at which the central bank of a country (Reserve Bank of India in case of India) lends money to commercial banks in the event of any shortfall of funds. Here, the central bank purchases the security.
- **Standing Deposit Facility (SDF): 5.15%**
  - The SDF is a liquidity window through which the RBI will give banks an option to park excess liquidity with it.
  - It is different from the reverse repo facility in that it does not require banks to provide collateral while parking funds.
- **Marginal Standing Facility Rate: 5.65%**
  - MSF is a window for scheduled banks to borrow overnight from the RBI in an emergency situation when interbank liquidity dries up completely.
    - Under interbank lending, banks lend funds to one another for a specified term.
- **Bank Rate: 5.65%**
  - It is the rate charged by the RBI for lending funds to commercial banks.
- **Cash Reserve Ratio (CRR): 4.50%**
  - Under CRR, the commercial banks have to hold a certain minimum amount of deposit (NDTL) as reserves with the central bank.
- **Statutory Liquidity Ratio (SLR): 18.00%**
  - SLR is the minimum percentage of deposits that a commercial bank has to maintain in the form of liquid cash, gold or other securities.

### ▪ Projections:

- **GDP Growth for 2022-23: 7.2%**
  - Gross Domestic Product (GDP) gives the **economic output from the consumers' side**. It is the sum of private consumption, gross investment in the economy, government investment, government spending and net foreign trade (the difference between exports and imports).

- **Inflation Projection for 2022-23: 6.7%**

- Inflation is the rate of increase in prices over a given period of time. Inflation is typically a broad measure, such as the overall increase in prices or the increase in the cost of living in a country.

## Why a Hike in the Repo Rate?

- Even as the consumer price inflation has eased from its surge in April 2022, **it is expected to remain uncomfortably high and above the upper threshold (6%) of the target.**
- These elevated levels of inflation remained the key concern for the MPC as the inflation target of Government of India according to RBI is (4%+/- 2%)
- It is expected that Inflation would **remain above the Upper Threshold (6 %), in Q2 and Q3 (FY 2022-23).**
- This sustained high inflation may **destabilise inflation expectations and harm growth in the medium term.**
- The withdrawal of **Monetary Accommodation (Expanding money Supply)** or increasing Rates can **keep inflation expectations** in range and **contain the Second-Round Effects of Inflation.**
  - Second-round effects occur when inflation passes to impact the wage and price setting, **leading to a wage-price spiral.**

## How will Hike in repo rate impact Borrowers and Depositors?

- It will hit the home loan customers and **prospective borrowers**, as it will result in a **hike in lending rates.**
- It will **benefit the conservative investors**, who like to park their funds in bank fixed deposits, since the deposit rates are expected to increase following the rate hike.
- The deposit rate hike will help fulfil the credit demand in the economy and also help **banks raise additional funds.**

## What about Liquidity?

- While improving the availability of funds with the banks, Rates Hike will lead to **a gradual decline in systemic liquidity.**
- To maintain adequate liquidity in the system, RBI will conduct **two-way fine-tuning operations in the form of Variable Rate Repo (VRR) and Variable Rate Reverse Repo (VRRR) operations of different maturities.**
  - The Variable Rate Operations are usually undertaken **to reduce the money flow by taking out existing cash present** in the system.
  - The central bank has been rebalancing the surplus liquidity in the system by shifting it out of the fixed-rate overnight reverse repo window to VRRR auctions of longer maturity.

## What is Monetary Policy Framework?

- **About:**
  - In May 2016, the **RBI Act was amended to provide a legislative mandate** to the central bank to operate the country's monetary policy framework.
- **Objective:**
  - The framework **aims at setting the policy (repo) rate based on an assessment of the current and evolving macroeconomic situation**, and modulation of liquidity conditions to anchor money market rates at or around the repo rate.
- **Reason for Repo Rate as Policy Rate:** Repo rate changes **transmit through the money market to the entire financial system**, which, in turn, influences aggregate demand.
  - Thus, it is a key **determinant of inflation and growth.**

## What is the Monetary Policy Committee?

- **Origin:** Under Section 45ZB of the amended (in 2016) RBI Act, 1934, the central government

is **empowered to constitute a six-member Monetary Policy Committee (MPC)**.

- **Objective:** Further, Section 45ZB lays down that “the Monetary Policy Committee shall determine the Policy Rate required to achieve the inflation target”.
  - The decision of the Monetary Policy Committee shall be binding on the Bank.
- **Composition:** Section 45ZB says the MPC shall **consist of 6 members:**
  - RBI Governor as its ex officio chairperson,
  - Deputy Governor in charge of monetary policy,
  - An officer of the Bank to be nominated by the Central Board,
  - Three persons to be appointed by the central government.
    - This category of appointments must be from “persons of ability, integrity and standing, having knowledge and experience in the field of economics or banking or finance or monetary policy”.

## What are the Instruments of Monetary Policy?

- Repo Rate
- Standing Deposit Facility (SDF) Rate
- Marginal Standing Facility (MSF) Rate
- Liquidity Adjustment Facility (LAF)
- LAF Corridor
- Main Liquidity Management Tool
- Fine Tuning Operations
- Reverse Repo Rate
- Bank Rate
- Cash Reserve Ratio (CRR)
- Statutory Liquidity Ratio (SLR)
- Open Market Operations (OMOs)

## What is an Expansionary Monetary Policy?

- **About:**
  - An expansionary monetary policy is **focused on expanding (increasing) the money supply** in an economy. This is also known as Easy Monetary Policy.
  - It is implemented by **lowering key interest rates thus increasing market liquidity (money supply)**. High market liquidity usually encourages more economic activity.
  - When RBI adopts **Expansionary Monetary Policy**, it decreases **Policy Rates (Interest Rates) like Repo, Reverse Repo, MSF, Bank Rate etc.**
- **Implications:**
  - Causes an **increase in bond prices** and a reduction in interest rates.
  - Lower interest rates lead to **higher levels of capital investment**.
  - The lower interest rates **make domestic bonds less attractive**, so the demand for domestic bonds falls and the demand for foreign bonds rises.
  - The **demand for domestic currency falls** and the demand for foreign currency rises, causing a decrease in the exchange rate. (The value of the domestic currency is now lower relative to foreign currencies)
  - A lower **exchange rate causes exports to increase**, imports to decrease and the balance of trade to increase.

## What is Contractionary Monetary Policy?

- **About:**
  - A contractionary monetary policy is **focused on contracting (decreasing) the money supply** in an economy. This is also known as **Tight Monetary Policy**.
  - A contractionary monetary policy is implemented **by increasing key interest rates thus reducing market liquidity (money supply)**. Low market liquidity usually negatively affects production and consumption. This may also have a negative effect on economic growth.
  - When RBI adopts a contractionary monetary policy, it increases Policy Rates (Interest

Rates) like Repo, Reverse Repo, MSF, Bank Rate etc.

▪ **Implications:**

- Contractionary monetary policy **causes a decrease in bond prices** and an increase in interest rates.
- Higher interest rates **lead to lower levels of capital investment.**
- The higher interest rates make domestic bonds more attractive, so the demand for domestic bonds rises and the demand for foreign bonds falls.
- The demand for domestic currency rises and the demand for foreign currency falls, causing an increase in the exchange rate. (The value of the domestic currency is now higher relative to foreign currencies)
- A **higher exchange rate causes exports to decrease**, imports to increase and the balance of trade to decrease.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Prelims

**Q. If the RBI decides to adopt an expansionist monetary policy, which of the following would it not do (2020)**

1. Cut and optimize the Statutory Liquidity Ratio
2. Increase the Marginal Standing Facility Rate
3. Cut the Bank Rate and Repo Rate

**Select the correct answer using the code given below:**

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Ans: (b)**

**Q. With reference to Indian economy, consider the following: (2015)**

1. Bank rate
2. Open market operations
3. Public debt
4. Public revenue

**Which of the above is/are component/ components of Monetary Policy?**

- (a) 1 only
- (b) 2, 3 and 4
- (c) 1 and 2
- (d) 1, 3 and 4

**Ans: (c)**

### Mains

**Q. Do you agree with the view that steady GDP growth and low inflation have left the Indian economy in good shape? Give reasons in support of your arguments. (2019)**

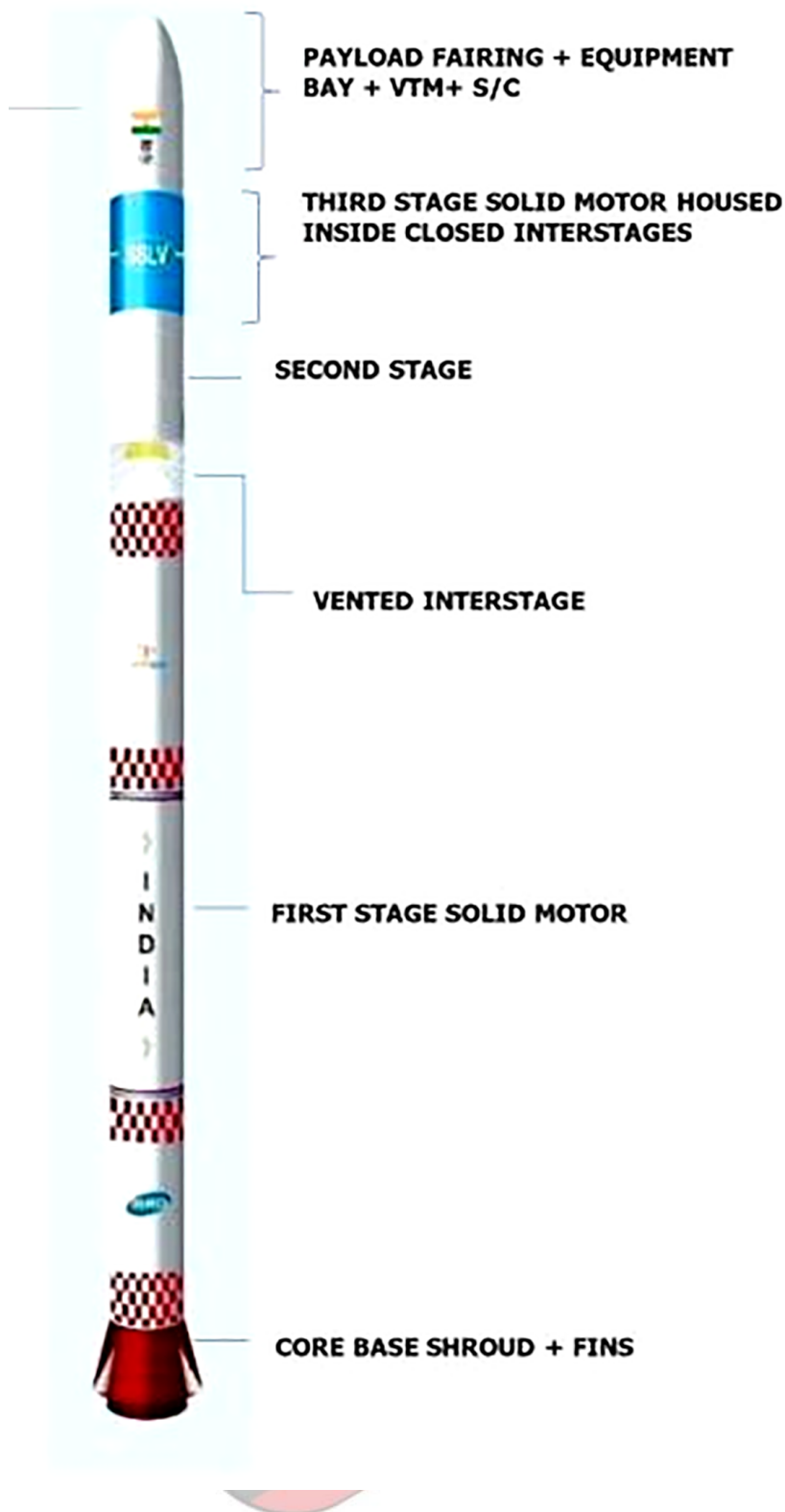
## Small Satellite Launch Vehicle (SSLV)

### Why in News?

Recently, [Indian Space Research Organisation \(ISRO\)](#) launched the first flight of the [Small Satellite Launch Vehicle\( SSLV\)](#), carrying an [Earth observation satellite EOS-02](#) and co-passenger students' satellite [AzaadiSAT](#).

- However, the mission failed to place the satellites in their required orbits, and the satellites, as they were already detached from the launch vehicle, were lost.





## What is a Small Satellite Launch Vehicle?

- About:
  - **Small Satellite Launch Vehicle (SSLV)** is a **three stage Launch Vehicle** configured with **three Solid Propulsion Stages and a liquid propulsion-based Velocity Trimming Module (VTM)** as a terminal stage.
    - SSLV is 2m in diameter and 34m in length with a lift-off weight of around 120 tonnes.
    - SSLV is capable of launching 500kg satellites in 500km planar orbit from Satish Dhawan Space Centre (SDSC).
- **Key Features:**

- Low cost,
- Low turn-around time,
- Flexibility in accommodating multiple satellites,
- Launch demand feasibility,
- Minimal launch infrastructure requirements, etc.
- **Significance:**
  - **The Era of small satellites:**
    - Earlier, the bigger satellite payloads were given importance, but as the sector grew many players emerged like **Businesses, government agencies, universities, and laboratories began to send satellites.**
      - Mostly all of them fall in the category of small satellites.
  - **The Rise in Demand:**
    - The demand for the launch of small satellites has increased at a rapid pace in the last eight to ten years, **due to the ever-growing need for space-based data, communication, surveillance, and commerce.**
  - **Saves cost:**
    - Satellite manufacturers and operators do not have the luxury of waiting months for space on a rocket or paying exorbitant trip charges.
      - Therefore, Organizations are increasingly developing a constellation of satellites in space.
      - **Projects like SpaceX's Starlink and One Web are assembling a constellation of hundreds of satellites.**
  - **Business opportunity:**
    - With the rise in demand, the rockets could be launched frequently with less cost, this provides a business opportunity for space agencies like ISRO to tap the potential of the sector as most of the demand comes from companies that are launching satellites for commercial purposes.

## What is the SSLV-D1/EOS-02 Mission?

- It was aimed at garnering a larger pie in the small launch vehicles market, as it could place the satellites into **Low Earth Orbit.**
- It was carrying the two satellites on board the rocket -
  - **The primary EOS-2 Earth-observing satellite-** EOS-02 is an earth observation satellite designed and realised by ISRO.
    - This microsat series satellite offers advanced optical remote sensing operating in infra-red band with high spatial resolution.
  - **The secondary AzaadiSAT student satellite-** It is an 8U Cubesat weighing around 8 kg.
    - It carries 75 different payloads each weighing around 50 grams and conducts **femto-experiments.**
      - It carried out tiny experiments which would have measured the **ionising radiation in its orbit** and also a transponder which worked in the ham radio frequency to enable amateur operators to access it.
    - **Girl students from rural regions across the country were provided guidance to build these payloads.**
      - The payloads are integrated by the student team of **"Space Kidz India".**

## What was the Issue?

- The problem appeared to be the SSLV's terminal stage, called the **velocity trimming module (VTM).**
  - According to the launch profile, the VTM was supposed to have burnt for 20 seconds at 653 seconds after launch.
    - However, it burnt for only 0.1 seconds, denying the rocket the requisite altitude boost.
- The two satellites separated from the vehicle after the VTM burned, there was a malfunctioning of a sensor which resulted in placing the satellites **in an elliptical orbit, rather than a circular orbit.**
- According to **ISRO**, all the stages performed normally, both the satellites were injected. But the



orbit achieved was less than expected, which makes it unstable.

## What is the Difference between Circular and Elliptical Orbits?

### ▪ Elliptical Orbits:

- Mostly objects such as **satellites and spacecrafts are put in elliptical orbits only temporarily.**
- They are then either pushed up to circular orbits at a greater height or the acceleration is increased until the trajectory changes from an ellipse to a hyperbola and the spacecraft escapes the gravity of the Earth in order to move further into space — for example, to the Moon or Mars or further away.

### ▪ Circular Orbits:

- **Satellites that orbit the Earth** are mostly placed **in circular orbits.**
- One reason is that if the satellite is used for imaging the Earth, it is easier if it has a fixed distance from the Earth.
- If the distance keeps changing as in an elliptical orbit, keeping the cameras focused can become complicated.

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. With reference to India's satellite launch vehicles, consider the following statements: (2018)**

1. PSLVs launch the satellites useful for Earth resources monitoring whereas GSLVs are designed mainly to launch communication satellites.
2. Satellites launched by PSLV appear to remain permanently fixed in the same position in the sky, as viewed from a particular location on Earth.
3. GSLV Mk III is a four-staged launch vehicle with the first and third stages using solid rocket motors; and the second and fourth stages using liquid rocket engines.

**Which of the statements given above is/are correct?**

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 2
- (d) 3 only

**Ans: (a)**

**Exp:**

- **PSLV is the third generation launch vehicle of India. It is the first Indian launch vehicle to be equipped with liquid stages.** It is used mainly for delivering various satellites in Low Earth Orbits, particularly the Indian Remote Sensing series of satellites. It can take up to 1,750 kg of payload to Sun-Synchronous Polar Orbits of 600 km altitude.
- GSLV is designed mainly to deliver Indian National Satellite System, or INSAT, which is a series of multipurpose geo-stationary satellites launched by ISRO to fulfil the needs of telecommunications, broadcasting, meteorology, and search and rescue operations. It places satellites to the highly elliptical Geosynchronous Transfer Orbit (GTO). **Hence, statement 1 is correct.**
- The satellites in the geosynchronous orbits appear to remain permanently fixed in the same position in the sky. **Hence, statement 2 is not correct.**
- GSLV-Mk III is a fourth generation, three stage launch vehicle with four liquid strap-ons. The indigenously developed Cryogenic Upper Stage (CUS), which is flight proven, forms the third stage of GSLV Mk III. It is capable to lift 4-5 tonne satellites into Geosynchronous Transfer Orbit (GTO). The rocket has three-stages with two solid motor strap-ons (S200), a liquid propellant core stage (L110) and a cryogenic stage (C-25). Hence, statement 3 is not correct. **Therefore, option (a) is**

the correct answer.

## Mains

Q. What is India's plan to have its own space station and how will it benefit our space programme? (2019)

[Source: IE](#)

## Electromagnetic Field (EMF) Emissions

### Why in News?

Recently, in a written reply to a question in [Rajya Sabha](#), the Minister of State for Communications stated that there is no impact on the Environment due to Electromagnetic Field levels in India.

### What are Electromagnetic Field (EMF) Emissions?

#### ▪ About:

- Electromagnetic fields are a **combination of invisible electric and magnetic fields of force**.
  - Electric fields are **created by differences in voltage**: the higher the voltage, the stronger will be the resultant field.
  - Magnetic fields are **created when electric current flows**: the greater the current, the stronger the magnetic field.
- **Natural Sources of EMF:**
  - Electromagnetic fields are **present everywhere in our environment but are invisible to the human eye**.
  - Electric fields are produced by the local build-up of electric charges in the atmosphere associated with thunderstorms.
- **Human-Made Sources of EMF:**
  - Besides natural sources, the electromagnetic spectrum also includes **fields generated by human-made sources: X-rays** are employed to diagnose a broken limb after a sport accident.
  - The **electricity that comes out of every power socket** is associated with low frequency electromagnetic fields.
  - Various kinds of **higher frequency radio waves** are **used to transmit information** – whether via TV antennas, radio stations or mobile phone base stations.

#### ▪ Issues:

- **Impacts on Humans:**
  - Numerous worldwide studies link EMFs to serious **health problems such as leukemia, miscarriages, chronic fatigue, weakened immune system, forgetfulness, [depression](#), nausea and loss of libido**.
- **Impacts on the Environment:**
  - Radars are used for navigation, weather forecasting **emit pulsed microwave signals, which are detrimental to health of flora and fauna present around these radars**.

### What are the Initiatives Taken by the Government to Curb EMF Emissions?

- As per the Government, **EMF emissions** from Mobile towers are non-ionizing Radio frequencies having very minuscule power and are **incapable of causing any adverse environmental impact**.
- The **International EMF Project** of the [World Health Organisation \(WHO\)](#) published an information sheet in 2005 on the effect of EMF emissions on animals, insects, vegetation, and aquatic life and has concluded that the **exposure limits in the Non-Ionizing Radiation Protection (ICNIRP) guidelines** for the protection of human health are also **protective of the environment**.
  - The present norms for Electromagnetic Field (EMF) emissions from mobile towers in **India are already ten times more stringent (even lower) than the safe limits prescribed by ICNIRP and recommended by WHO**.
- The government has put in place a **well-structured process and mechanism for monitoring any violation** so that [Telecom Service Providers \(TSPs\)](#) adhere to the prescribed norms including the submission of a self-certificate before the commercial start of the **Base Transceiver Station (BTS)** site.
- The field units of the **Department of Telecommunications (DoT)** regularly carry out the EMF audit of up to 10% of BTS Sites annually on a random basis.
  - DoT also **imposes a financial penalty on TSPs whose BTSs are found to exceed the prescribed EMF emission limits**.
- In addition, if emission levels of such non-compliant BTSs are not brought within prescribed limits within 30 days, the same is liable to be shut down as per the prescribed procedure.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Prelims

**Q. With reference to Visible Light Communication (VLC) technology, which of the following statements are correct? (2020)**

1. VLC uses electromagnetic spectrum wavelengths 375 to 780 nm.
2. VLC is known as long-range optical wireless communication.
3. VLC can transmit large amounts of data faster than Bluetooth.
4. VLC has no electromagnetic interference.

**Select the correct answer using the code given below:**

- (a) 1, 2 and 3 only
- (b) 1, 2 and 4 only
- (c) 1, 3 and 4 only
- (d) 2, 3 and 4 only

**Ans: (c)**

**Exp:**

- Visible Light Communication (VLC) systems employ visible light for communication that occupy the electromagnetic spectrum from 375 nm to 780 nm. **Hence, statement 1 is correct.**
- VLC is known as short-range optical wireless communication. Hence, statement 2 is not correct.
- Li-Fi, a kind of VLC, has a range of approximately 10 meters and it cannot pass through walls or any solid object.
- VLC can transmit large amounts of data faster than Bluetooth. The VLC uses visible light for communication to provide high speed internet up to 10 Gb/s while Bluetooth 4.0 promises speeds up to 25 Mb/s. **Hence, statement 3 is correct.**
- **VLC has no electromagnetic interference. The radio frequency (RF) based signals have the problem of interference** with other RF signals such as its interference with pilot navigational equipment signals in aircraft. Therefore, in the areas that are sensitive to electromagnetic radiation (such as aircrafts) VLC can be a better solution. **Hence, statement 4 is correct. Therefore, option (c) is the correct answer.**

**Q. Assertion (A): Radio waves bend in a magnetic field.**

**Reason (R): Radio waves are electromagnetic in nature. (2008)**

**Ans: (A)**

- **The electromagnetic (EM) spectrum is the range of all types of EM radiation. Radiation is energy that travels and spreads out. The visible light that comes from a lamp in houses and the radio waves that come from a radio station are two types of electromagnetic radiation.** The other types of EM radiation that make up the electromagnetic spectrum are microwaves, infrared light, ultraviolet light, X-rays and gamma-rays.
- In 1873, Scottish physicist James Clerk Maxwell developed a unified theory of electromagnetism, which dealt with electrically charged particles interacting with each other and with magnetic fields. He proved that magnetic poles come in pairs that attract and repel each other, much like electric charges through his Maxwell equations.
- Electromagnetic waves are formed when an electric field is coupled with a magnetic field. Magnetic electric fields of an electromagnetic wave are perpendicular to each other and to the direction of the wave.
- Radio waves are at the lowest range of the EM spectrum, with frequencies of up to about 30 GHz, and wavelengths greater than about 10 millimetres (0.4 inches).
- Radio waves are waves of the electromagnetic spectrum (electromagnetic in nature), thus these waves bend in both magnetic and electric fields. **Hence, Assertion (A) is correct and Reason (R) is correct explanation of Assertion (A). Therefore, option (a) is the correct answer**

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