

**The Hindu Important News Articles & Editorial For UPSC CSE**

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—It's about quality—

### Page 01 : GS 2 : Indian Polity : Constitution – Basic structure

The Supreme Court upheld the inclusion of 'socialist' and 'secular' in the Preamble through the 42nd Amendment of 1976, emphasizing the Constitution as a living document.

- It clarified their meanings in the Indian context, particularly regarding state welfare and religious neutrality.

## 'Secular, socialist' are an inalienable part of the Constitution, to stay in Preamble, orders SC

**Krishnadas Rajagopal**  
NEW DELHI

"The word 'secular' denotes a Republic that upholds equal respect for all religions. 'Socialist' represents a Republic dedicated to eliminating all forms of exploitation—whether social, political, or economic," a Bench of Chief Justice Sanjiv Khanna and Justice Sanjay Kumar interpreted.

The order was based on a batch of petitions filed in 2020, challenging the validity of the inclusion of 'socialist' and 'secular' in the Preamble through the 42nd Constitution Amendment in 1976. The petitioners, who included BJP leader Subramanian Swamy, argued that the insertions made with retrospective effect, that is from the date of adoption of the Constitution by the Constituent Assembly on November 26,

1949, amounted to a fraud on the Constitution. Besides, they argued that the word 'secular' was deliberately eschewed by the Constituent Assembly and the word 'socialist' fettered the economic policy choice of the elected government, which represents the will of the people.

The apex court, in its seven-page order, said the case was not worth a detailed adjudication as the flaws in the petitioners' arguments were manifest. Besides, the court found the motives of the petitions, filed nearly 44 years after such an insertion, "questionable".

The court held that the Preamble was an inalienable part of the Constitution. Parliament had an unquestionable power to amend the Constitution under Article 368.

Its amending extended to the Preamble. The court



confirmed the retrospective amendment to the Preamble, saying the date of adoption would not curtail the power under Article 368.

The court explained that the Constitution was a 'living document', and open to changes according to the needs of the time.

Though the Constituent Assembly was not sure about what 'secularism' should entail in India, the court said, over time, the nation has developed its own interpretation of the

term, which has become a basic feature of the Constitution.

"Over time, India has developed its own interpretation of secularism, wherein the State neither supports any religion nor penalises the profession and practice of any faith. This principle is enshrined in Articles 14, 15, and 16 of the Constitution, which prohibit discrimination against citizens on religious grounds while guaranteeing equal protection of laws and equal oppor-

tunity in public employment," the Supreme Court observed.

The court said the Preamble's original tenets of equality of status and opportunity, fraternity, dignity and liberty reflect the secular ethos of the Constitution.

The apex court clarified that 'socialism' in the Indian context meant the commitment to function as a welfare state.

"Neither the Constitution nor the Preamble mandates a specific economic policy or structure, whether left or right. Rather, 'socialist' denotes the state's commitment to be a welfare state and its commitment to ensuring equality of opportunity. India has consistently embraced a mixed economy model, where the private sector has flourished, expanded, and grown over the years," the apex court highlighted.

### Challenge to Inclusion in the Preamble

- A batch of petitions challenged the inclusion of the words 'socialist' and 'secular' in the Preamble through the 42nd Constitution Amendment of 1976.
- Petitioners argued that these terms, inserted retrospectively from the adoption of the Constitution in 1949, were unconstitutional and that the inclusion of 'socialist' limited economic policy choices.

### Supreme Court's Decision

- The Supreme Court ruled that the inclusion of 'socialist' and 'secular' was valid and part of the Constitution.

## Daily News Analysis

- ➡ The court dismissed the petitioners' arguments as flawed and questioned their motives, noting the delay of nearly 44 years in filing the case.

### **Preamble and Constitutional Amendment**

- ➡ The Preamble is an integral part of the Constitution, and Parliament has the power to amend it under Article 368.
- ➡ The retrospective amendment was upheld, affirming that the Constitution is a living document adaptable to changing needs.

### **Interpretation of Words 'Secular' and 'Socialist'**

- ➡ Supreme Court's Interpretation of 'Secular' The Supreme Court explained that secularism in India means the State neither supports nor discriminates against any religion.
- ➡ It ensures equal respect for all faiths and guarantees citizens' rights to freely practice their religion.
- ➡ This interpretation is grounded in Articles 14, 15, and 16 of the Constitution, which prohibit discrimination on the basis of religion.
- ➡ These provisions ensure equal protection under the law and guarantee equal opportunities in public employment, reinforcing the secular ethos of the Constitution.
- ➡ Supreme Court's Interpretation of 'Socialist' The Supreme Court clarified that 'socialist' in India's context signifies the state's commitment to being a welfare state, ensuring equality of opportunity and socio-economic justice.
- ➡ It does not dictate a specific economic policy, whether left or right.
- ➡ The term reflects the Constitution's goal of promoting social welfare and addressing inequality.
- ➡ India adopts a mixed economy model, where both the private sector and the government play crucial roles in fostering economic development.

### **UPSC Mains PYQ : 2018**

**Ques : How is the Indian concept of secularism different from the western model of secularism? Discuss. (150 words/10m)**

The Union Cabinet approved the continuation of the Atal Innovation Mission (AIM) with an enhanced allocation of ₹2,750 crore until March 2028. AIM 2.0 aims to strengthen India's global competitiveness and drive job creation, innovation, and high-impact services across sectors.

## Cabinet approves next phase of Atal Mission

**The Hindu Bureau**  
NEW DELHI

The Union Cabinet, at a meeting here on Monday, approved the continuation of the Atal Innovation Mission (AIM), implemented by NITI Aayog, with an enhanced allocation of ₹2,750 crore for the period till March 31, 2028.

The Centre said the next

phase of AIM is expected to further enhance India's global competitiveness in the innovation ecosystem. "The continuation of AIM will directly contribute to creating better jobs, innovative products, and high-impact services across sectors," a release said.

It said AIM 2.0 will pilot new initiatives designed to fill gaps in the ecosystem.

### **Atal Innovation Mission (AIM) Overview:**

- Launched by NITI Aayog in 2016, AIM is India's flagship initiative to foster innovation and entrepreneurship.
- Aimed at creating a culture of problem-solving and innovative mindsets in schools and an entrepreneurial ecosystem in universities, research institutions, and the private sector.
- Holistic approach includes establishing Atal Tinkering Labs (ATLs) in schools, incubation centres in universities, and community innovation centres in underserved regions.

### **Key Initiatives:**

#### ➤ **Atal Tinkering Labs (ATL):**

- Established in 10,000 schools across India for grades 6-12, aiming to foster curiosity and innovation using technologies like IoT, 3D printing, robotics, and miniaturized electronics.

#### ➤ **Atal Incubation Centres (AICs):**

- 72 centres supporting 3500+ startups, providing mentorship, funding, and technical facilities to foster innovation and entrepreneurship.

## Daily News Analysis

- Focus on startups in sectors like HealthTech, EdTech, FinTech, SpaceTech, and more.
- **Atal Community Innovation Centres (ACICs):** Targeting under-served regions to promote innovation and entrepreneurship.
- **AIM Impact:** Creating jobs, promoting entrepreneurship, and enhancing India's global competitiveness in innovation.





The Major Atmospheric Cherenkov Experiment (MACE) telescope in Hanle, Ladakh, is the world's highest imaging Cherenkov telescope, advancing India's role in gamma-ray astronomy.

- ➡ It studies high-energy cosmic phenomena and searches for dark matter particles.
- ➡ Built indigenously, it showcases India's capabilities in high-energy astrophysics and particle physics research.

## MACE in Ladakh opens its one-of-a-kind eye to cosmic gamma rays

MACE's main goal is to study gamma rays with more than 20 billion eV of energy; the telescope can examine gamma rays emitted from beyond the Milky Way; other potential targets include pulsars and blazars; it will also be used to explore a class of hypothetical dark-matter particles

Shreejaya Karantha

**T**he Major Atmospheric Cherenkov Experiment (MACE) telescope is a state-of-the-art ground-based gamma-ray telescope inaugurated in Hanle, Ladakh, on October 4. Located at around 4.3 km above sea level, it is the highest imaging Cherenkov telescope in the world. It boasts of a 21-metre-wide dish, the largest of its kind in Asia and second-largest in the world.

The facility was built by the Bhabha Atomic Research Centre, the Tata Institute of Fundamental Research, the Electronics Corporation of India Ltd., and the Indian Institute of Astrophysics.

Light comes in a wide range of wavelengths but humans can only see a small portion. In the electromagnetic spectrum, gamma rays have the shortest wavelength and the highest energy, with each light-particle possessing more than 100,000 electron volts. (Visible light photons have around 1.63-3.26 eV each.)

### A strange blue light

Gamma rays are produced by exotic energetic objects in the cosmos, including rapidly spinning pulsars, supernova explosions, hot whirlpools of matter around black holes, and gamma-ray bursts. Because of their high energy, gamma rays are a health hazard. They can damage living cells and may even trigger deleterious mutations in DNA.

Fortunately, the earth's atmosphere blocks gamma rays from reaching the ground. Thus, astronomers who want to study objects that emit gamma rays prefer using space observatories – although there are indirect techniques to detect gamma rays with very high energies from the ground.

When a gamma ray from a cosmic source enters the atmosphere, it interacts with molecules in the air to produce a copious shower of electron-positron pairs. As these charged particles travel through the atmosphere at speeds greater than the speed of light in air, they emit a faint blue light, called Cherenkov radiation. This radiation has wavelengths typical of violet and blue light of the visible spectrum and of the ultraviolet wavelength range.

The light is emitted in about a fraction of a second, and the light particles spread out evenly over a vast region on the earth's surface. This region is a suitable place to locate a detector that can collect the photons and study them to indirectly understand the gamma rays. Instruments used for this kind of detection are called imaging atmospheric Cherenkov telescopes (IACTs). The MACE telescope is an IACT.

### Strength in numbers

Every IACT has a light collector and a camera. The size of the light collector determines the minimum energy of gamma rays it can detect. MACE's light collector has 356 mirror panels. Each panel consists of four smaller mirrors arranged in a honeycomb structure.

These honeycomb arrangements have been shown to be lighter yet more stable than solid mirrors because they reduce the empty space between segments and increase the total reflective area. The James Webb Space Telescope uses honeycomb-segmented mirrors for this reason.

To ensure it can detect gamma rays in the required energy range, MACE's



The blue spot at the centre of the red ring is an isolated neutron star in the Small Magellanic Cloud. Neutron stars are formed after heavy stars go supernova, in the process emitting gamma rays alongside radiation at other energies. ESA/NASA

construction and its geographical station were carefully planned. The high-altitude location puts the telescope above disturbances in the lower reaches of the troposphere. MACE is also not housed in a dome because of its large size, leaving its mirrors continuously exposed to the environment. Each mirror is coated with a thin layer of silicon dioxide for protection.

The mirrors are aligned to collect and focus the Cherenkov radiation into the high-resolution camera, which is made up of 1,088 photomultiplier tubes that detect the faint signals and amplify them. All the necessary electronic components for processing and recording data are placed within the camera, including a specialised device that continuously converts signals from photomultiplier tubes into digital data, allowing computers to perform real-time analysis.

The telescope has a moving weight of 180 tonnes. It stands on a base with six wheels that roll along a 27-metre-wide curved track. The drive system that moves the telescope uses an altitude-azimuth mount, meaning the telescope can shift its gaze both vertically and horizontally, to observe all patches of the sky.

MACE's main goal is to study gamma rays with more than 20 billion eV of

**Gamma rays are produced by exotic energetic objects in the cosmos, including rapidly spinning pulsars, supernova explosions, hot whirlpools of matter around black holes, and gamma-ray bursts**

energy. The telescope can examine high-energy gamma rays emitted from near black holes beyond the Milky Way and which are digesting large volumes of matter. Other potential astrophysical targets include gamma-ray pulsars, blazars, and gamma-ray bursts.

One important goal is to find dark matter particles. Dark matter is a type of matter believed to make up more than 85% of the total mass in our universe. It is a fundamental part of the standard model of cosmology – but scientists don't know what subatomic particles it could be made of.

One of the proposed particle constituents of dark matter is weakly interacting massive particles (WIMPs). Scientists have predicted that these particles can produce high-energy gamma rays when they collide into and destroy each other.

These gamma rays could be produced

in large galaxy clusters, small galaxies, and/or the centre of large galaxies, including the Milky Way.

### India's MACE is the next step

Previous studies have shown that the MACE telescope can help find and measure the high-energy gamma rays produced by WIMPs. This will allow astronomers to learn more about dark matter and the behaviour of WIMPs. But just as likely, MACE could help verify whether WIMPs actually exist and make up dark matter or whether this hypothesis is flawed.

India has been active in gamma-ray astronomy for more than five decades now. The unveiling of the MACE telescope marked a significant step towards further technological and scientific advancements in the field. Most of MACE's subsystems were also built and designed within the country.

With its advanced capabilities, MACE could play an important role in addressing fundamental open questions in the field of high-energy astrophysics and particle physics, and pave the way for cutting-edge research. (Shreejaya Karantha is a freelance science writer and a content writer and research specialist at The Secrets of The Universe. shreejayakarant@gmail.com)

## Significance of Gamma Rays

## Daily News Analysis

- Gamma rays, the highest-energy light in the electromagnetic spectrum, are produced by cosmic events like pulsars, black holes, and supernovae.
- These rays are blocked by Earth's atmosphere, making indirect ground-based detection crucial.
- When gamma rays interact with the atmosphere, they produce Cherenkov radiation, a faint blue light that MACE detects.

### Overview of MACE Telescope

- **Location and Altitude:** Situated in Hanle, Ladakh, at an altitude of 4.3 km, making it the world's highest imaging Cherenkov telescope.
- **Size and Features:** Features a 21-meter-wide dish, the largest in Asia and second-largest globally.
- **Technology and Components:** Equipped with 356 honeycomb-structured mirror panels and a high-resolution camera with 1,088 photomultiplier tubes.
- **Construction and Collaboration:** Built by BARC, TIFR, ECIL, and the Indian Institute of Astrophysics, showcasing indigenous capabilities.
- **Scientific Goal:** Studies gamma rays with over 20 billion eV energy and explores cosmic phenomena like black holes, pulsars, and dark matter.
- **Advanced Mechanics:** Has a 180-tonne moving weight and operates on a 27-meter-wide curved track for precise sky observations.
- **Significance:** Marks a significant step in India's gamma-ray astronomy and high-energy astrophysics research.

### Scientific Goals

- MACE studies gamma rays with energy exceeding 20 billion eV, focusing on phenomena like black holes, pulsars, and gamma-ray bursts.
- It aims to search for dark matter particles like WIMPs, potentially produced in galactic centers and clusters.

### India's Milestone

- The MACE telescope advances India's five-decade-long journey in gamma-ray astronomy.
- Its indigenous design and capabilities position India as a leader in high-energy astrophysics and particle physics research.

### UPSC Mains Practice Question

**Ques :** Discuss the significance of the MACE telescope and its potential in understanding cosmic phenomena like dark matter and gamma rays. (150 Words /10 marks)



Delhi's air quality remains poor post-Deepavali despite mitigation measures.

- ➔ Paddy stubble burning in Punjab and Haryana, tracked using NASA satellites, is a major contributor.
- ➔ A controversy arose over delayed burning to evade detection, challenging data accuracy and exposing gaps in air pollution control measures.

## On stubble burning and satellite data

How are satellites used to track farm fires resulting from the stubble burning in Punjab and Haryana? What are the satellites used and how effective are they?  
Have the farmers worked their way around the tracking methodology?

### EXPLAINER

Vasudevan Mukunth

#### The story so far:

The air quality in the national capital has been struggling to recover from the lows to which it dropped right after Deepavali despite the implementation of GRAP stage IV measures, the active intervention of the Supreme Court, and stop-gap measures by the Delhi government. Many fingers are currently pointed at the farm fires in the surrounding States, where farmers are burning paddy stubble in time for the wheat-sowing season. While these fires are not solely responsible for Delhi's plight, a controversy over measuring their prevalence illustrates the amount of attention they are receiving.

#### How are the fires counted?

Farmers in Punjab and Haryana sow rice in the kharif season and harvest it in November, using the summer monsoons to quench the crop's high water demand. After the rice is harvested, they need to clear the leftover organic material—called paddy stubble—in order to make way for the next sowing season. For reasons of time and cost, they have traditionally preferred to burn the stubble. But thanks to the winds at this time of the year over the National Capital Region, the toxic particulate matter from the fires is floated to and hangs over New Delhi, dragging its air quality down.

Because of the large area over which farmers light the fires, officials have said satellites are the best way to track the fires. The Indian government currently procures this data from two NASA satellites called Aqua and Suomi-NPP.

NASA launched Aqua in 2002 and it is currently in the twilight stage of its designed lifespan. Its Moderate Resolution Imaging Spectroradiometer (MODIS) instrument was built to track changes in the lower atmosphere, especially over land, through time. MODIS's technical successor is the Visible Infrared Imaging Radiometer Suite (VIIRS) instrument onboard Suomi-NPP, which NASA launched in 2011. Both satellites are part of NASA's 'Earth Observing System'.

Aqua's and Suomi-NPP's overpass at each location happens at 1:30 p.m. local time in the day and at 1:30 a.m. local time at night. Their MODIS and VIIRS instruments collect visible and infrared images of the earth at around these intervals and are capable of spotting fires and smoke in a small window centred on the overpass time. The Ozone Mapping and Profiler Suite onboard Suomi-NPP can also identify aerosol loads in the atmosphere, which is useful to track smoke from fires and their eventual contribution to air pollution.

#### What is the new controversy?

On October 2, a senior scientist at NASA's Goddard Space Flight Centre named Hiren Jetwa wrote on X (Twitter) that there were 40% fewer farm fires than predicted in 2023 and expressed hope for the trend to continue this year. On October 24, Mr. Jetwa wrote in the same thread that the number of fires in 2024 seemed to be the 'lowest in [the] last decade', and added that either 'ground efforts to curb residue-burning appear to be working or burning activities [are] taking place after satellite overpass time, but it needs ground-truthing'.

His post implied farmers were burning paddy stubble after the Aqua and



**Billowing trouble:** Stubble being burnt at a paddy field on the outskirts of Amritsar in Punjab earlier this month. PTI

Suomi-NPP satellites had completed their overpass at around 1:30 pm.

The next day Jetwa followed up by comparing data from Aqua and Suomi-NPP with data from the GEO-KOMPSAT 2A satellite. South Korea launched this satellite, also called Cheollian 2A, in 2018 as a "dedicated geostationary weather satellite"; it's currently stationed at 128.2° E and has a planned mission life of at least a decade. In the visuals Mr. Jetwa collected and presented from the three satellites, the smoke cover over cropland in Punjab and Haryana seemed to thicken after Aqua and Suomi-NPP had completed their overpass, as if farmers were lighting more fires later in the day than before.

The senior scientist also wrote that the quantity of aerosols in the air was roughly the same as in previous years whereas it should have been lower given Aqua and Suomi-NPP indicated there were fewer fires.

#### Is the discrepancy real?

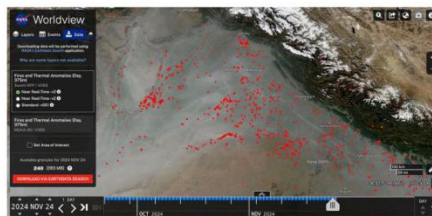
In 2020, the Indian government created the Commission for Air Quality Management in the NCR and Adjoining Areas (CAQM for short) by ordinance and a subsequent Act of Parliament in 2021. Its mandate was to study, identify, and resolve issues relevant to improving air quality in its jurisdiction.

On Saturday, *The Hindu* reported based on multiple sources and documents that the CAQM was aware farmers were burning paddy stubble after the NASA satellites had completed their overpass to avoid being detected. However the CAQM has continued to insist in the public that the number of farm fires has dropped, defending its conclusion in the face of contrary evidence by claiming it used different formulae.

That farmers were aware of the overpass timings is recorded in the minutes of a March 7, 2024, meeting, where director of Haryana Space Applications Centre Sultan Singh and National Remote Sensing Centre (NRSC) scientist Bhavana Sahay alleged as much. Farmers on the ground also told *The Hindu* a government official had asked them to light fires after 4 p.m.

(The alleged advice echoes Goodhart's law: "when a measure becomes a target, it ceases to be a good measure.")

The CAQM has also come under the



pump from a second angle: in affidavits to the Supreme Court, it has said the burnt area in Punjab shrunk 26.5% between 2022 and 2023 whereas data from the Government of Punjab and the Indian Agricultural Research Institute, which is funded by the Centre, says it increased 24% and 15% respectively.

#### How is the government responding?

The Centre had originally created the CAQM to replace the Environmental Pollution (Prevention and Control) Authority (EPCA), which the Supreme Court had created in 1998. EPCA was a non-statutory body and lacked the instruments to sanction non-compliant actors. CAQM was designed to have teeth in the 2021 Act – and which it has since been accused of not wielding.

The Supreme Court in particular has upbraided the CAQM for failing to mitigate air pollution resulting from the fires over the years. The body was expected to respond on November 25 to the Supreme Court to allegations that it was aware farmers were delaying burns to after the satellites' overpass. The Indian government is also on the back foot after Union Agriculture Minister Shweta Singh Chouhan said on October 26 that the number of stubble-burning incidents have dropped this year.

But the CAQM has also maintained that its efforts have lowered the prevalence of fires by 71% in Punjab and 44% in Haryana between 2020 and 2024, and has objected to the idea of a group of retired judges overseeing the fight against stubble-burning.

The CAQM also said it wrote to the NRSC – a body under the Indian Space

### THE GIST

Because of the large area over which farmers light the fires, officials have said satellites are the best way to track the fires. The Indian government currently procures this data from two NASA satellites called Aqua and Suomi-NPP.

While satellite data showed that there was a reduction in farm fires, the smoke cover over cropland in Punjab and Haryana seemed to thicken after the satellites had completed their overpass and the quantity of aerosols in the air was roughly the same as in previous years.

The Commission for Air Quality Management in the NCR and Adjoining Areas was expected to respond on November 25 to the Supreme Court to allegations that it was aware farmers were delaying burns to after the satellites' overpass.

Research Organisation (ISRO) – asking it to develop a standard protocol to measure burnt area in January 2024. At present, burnt area data is available once every five days from the Sentinel II satellites of the European Space Agency.

#### Can Indian satellites help?

In an affidavit to the Supreme Court on November 21, the CAQM said ISRO plans to evaluate the usability of data from various satellites to identify farm fires. According to the affidavit, ISRO experts are of the view that data from INSAT-3DR (by India), GEO-KOMPSAT 2A-MI (South Korea), Meteosat-9, Feng Yun-4A4B (China), and HIMAWARI-8 (Japan) cannot provide accurate fire counts – although their assessments will not be complete for at least another month.

The problem with INSAT-3DR is that its data is too coarse: of 1 km in visible and short-wave infrared radiation, of 4 km in middle and thermal infrared, and of 8 km for water vapour. In August 2021, ISRO had launched another satellite that could have been useful in this context, GISAT-1, but the GSLV-F10 mission carrying it failed after the rocket's upper stage failed to fire.

ISRO also operates the three RESOURCESAT satellites, launched in 2003, 2011, and 2016, with similar payloads. Those in RESOURCESAT 2A have better features, however. The Linear Imaging Self Scanner (LISS) cameras 3 and 4, both of which 'see' in visible and near-infrared radiation; LISS-4 has a spatial resolution of 5.8 m and LISS-3, of 23.5 m. The Advanced Wide Field Sensor (AWIFS) camera detects similar radiation at an even lower resolution of 56 m.

## Air Quality Crisis in Delhi Post-Deepavali



## Daily News Analysis

- Despite GRAP Stage IV measures, Supreme Court interventions, and actions by the Delhi government, Delhi's air quality remains poor after Deepavali.
- Farm fires in Punjab and Haryana, where paddy stubble is burned for wheat sowing, are significant contributors to the pollution.
- Although not solely responsible, these fires are under scrutiny due to their severe impact on air quality.

### Tracking Farm Fires Using Satellites

- **Paddy Stubble Burning:** Farmers burn stubble post-rice harvest to prepare for wheat sowing due to time and cost constraints.
- **NASA Satellites:** India uses data from Aqua and Suomi-NPP satellites to track farm fires.
- Aqua, launched in 2002, uses the MODIS instrument to monitor atmospheric changes.
- Suomi-NPP, launched in 2011, employs the VIIRS instrument for fire and smoke detection and the Ozone Mapping Profiler Suite for aerosol tracking.
- Both satellites pass over locations at 1:30 PM and 1:30 AM local time, capturing visible and infrared images.

### Emerging Controversy Over Satellite Data

- A senior NASA scientist noted fewer fires in 2024 but highlighted the possibility of burning after satellite overpass times.
- Comparisons with South Korea's GEO-KOMPSAT 2A satellite showed smoke increasing after Aqua and Suomi-NPP's daily passes.
- Aerosol levels in the atmosphere remain consistent with previous years, contradicting reduced fire claims.

### Discrepancy in Reporting and Data

- **Commission for Air Quality Management (CAQM):**
  - Established in 2020 to tackle air pollution in NCR.
  - Allegations surfaced that farmers were advised to burn stubble post-overpass times to evade satellite detection.
  - Reports from Punjab and IARI indicate a rise in burnt areas, contradicting CAQM's claim of a 26.5% reduction.
- **Goodhart's Law:**
  - Explains how measures lose effectiveness when turned into targets.
  - Farmers manipulating stubble-burning timings show this principle: aiming to avoid satellite detection, they adjust behavior, reducing the measure's reliability in tracking fires and addressing pollution.

### Government's Response and Challenges

- **Supreme Court Criticism:** CAQM has been criticized for its inefficacy in reducing stubble burning and air pollution.
- **CAQM Claims:** Asserted a 71% reduction in Punjab and 44% in Haryana between 2020 and 2024.
- Efforts to develop accurate satellite protocols are underway, with collaboration with NRSC and ISRO.

### Indian Satellites and Limitations

- ➡ **INSAT-3DR:** Provides coarse-resolution data unsuitable for precise fire detection.
- ➡ **RESOURCESAT Satellites:** Offer better spatial resolutions with instruments like LISS and AWiFS but still face limitations.
- ➡ **GISAT-1:** Could have contributed but failed during its launch in 2021.

### Conclusion

- ➡ The controversy around farm fires highlights the urgent need for accurate measurement systems and actionable solutions to mitigate Delhi's recurring air quality crisis.
- ➡ Enhanced technology and inter-agency coordination are critical.

### UPSC Mains PYQ : 2015

**Ques :** Mumbai, Delhi and Kolkata are the three megacities of the country but the air pollution is a much more serious problem in Delhi as compared to the other two. Why is this so? (200 words/12.5m)

**In News : YOUTH UNEMPLOYMENT RATES IN INDIA – Lower Than Global Levels**

India's employment scenario shows improvement, with youth unemployment decreasing to 10.2% in 2023-24, compared to global levels.



- Worker Population Ratio has increased, and formalisation of jobs is evident through significant EPFO enrolments. Government schemes prioritize employment generation and skill development.

**Youth Unemployment: Global vs. India**

- The India Employment Report, 2024, by the Institute for Human Development (IHD) and International Labour Organisation (ILO), highlights improved youth employment in India compared to global levels.
- Globally, youth unemployment rates were 15.6% in 2021 and 13.3% in 2023, as per ILO reports.



## Daily News Analysis

- ➡ In India, the Periodic Labour Force Survey (PLFS) 2023-24 reported a youth unemployment rate (ages 15–29) of 10.2%, significantly lower than global averages.

### Key Labour Force Indicators

- ➡ **Worker Population Ratio (WPR):** Increased from 31.4% in 2017-18 to 41.7% in 2023-24, reflecting higher youth employment.
- ➡ **EPFO Payroll Data:** Over 1.3 crore net subscribers joined EPFO in 2023-24, with 7.03 crore net subscribers added between September 2017 and August 2024, indicating growing formal employment.

### Government Initiatives for Employment Generation

- ➡ Employment generation and enhancing employability are priorities for the government.
- ➡ **Key schemes include:**
  - Prime Minister's Employment Generation Programme (PMEGP).
  - Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).
  - Pradhan Mantri Mudra Yojana (PMMY).
  - Deen Dayal Antodaya Yojana (DAY-GKY and DAY-NULM).
  - These schemes are implemented by ministries such as MSME, Rural Development, Housing and Urban Affairs, and Finance.

### UPSC Mains PYQ : 2022

**Ques : Besides the welfare schemes, India needs dem management of inflation and unemployment to serve the poor and the underprivileged sections of the society. Discuss.(250 words/15m)**

**Page : 04 Editorial Analysis**

# *The Constitution still thrives, let it show India the way*

**T**his month marks the 75th anniversary of the adoption by the Constituent Assembly of the draft Constitution of India, on November 26, 1949. The Union government has announced that it intends to commemorate this momentous occasion with a special joint sitting of Parliament. There are bound to be several self-congratulatory speeches, from all sides of our fractious political divide. But the speech that should haunt us all is that of the principal draftsman of the Constitution, B.R. Ambedkar, on the eve of the Constitution's adoption. On November 25, 1949, in his magisterial summation of the work of the Drafting Committee he chaired, and before commending its work to the Assembly, he pointedly observed: "however good a Constitution may be, it is sure to turn out bad because those who are called to work it, happen to be a bad lot. However bad a Constitution may be, it may turn out to be good if those who are called to work it, happen to be a good lot."

The working of the Constitution, Dr. Ambedkar pointed out, depended on how the people and the political parties applied it. The drafters had made provision for relatively easy amendment, so as to permit the document to keep up with the needs of the times. But the rest depended on the way successive generations of its custodians chose to implement it.

## **The lacunae that B.R. Ambedkar identified**

Dr. Ambedkar highlighted the fact that "there is complete absence of two things in Indian society" – equality and fraternity. "On the 26th of January 1950," he declared, "we are going to enter into a life of contradictions. In politics we will have equality and in social and economic life we will have inequality. In politics we will be recognizing the principle of one man one vote and one vote one value. In our social and economic life, we shall, by reason of our social and economic structure, continue to deny the principle of one man one value. How long shall we continue to live this life of contradictions? How long shall we continue to deny equality in our social and economic life?"

In calling for a social and not merely political democracy to emerge from the Constitution, Dr. Ambedkar stressed the absence of fraternity as the second major ingredient that was missing in India. "Fraternity means a sense of common brotherhood of all Indians – of Indians being one people. It is the principle which gives unity and solidarity to social life." But thanks to the caste system – the entire structure of caste, he averred,



**Shashi Tharoor**

a fourth-term Indian National Congress Member of the Lok Sabha for Thiruvananthapuram, and the award-winning author of 26 books, including 'The Battle of Belonging: On Nationalism, Patriotism and What it Means to be Indian' (2021). He is a member of the Congress Working Committee

But a speech that should haunt all Indians is that of its principal draftsman on the eve of the Constitution's adoption – on people and political parties making it work

was 'anti-national' – religious divisions and the absence of a common sense of nationhood among some Indians, fraternity had not yet been achieved. But it was indispensable, since liberty, equality and fraternity were all intertwined and could not flourish independently of one another. "Without equality," he pointed out, "liberty would produce the supremacy of the few over the many. Equality without liberty would kill individual initiative. Without fraternity, liberty would produce the supremacy of the few over the many. Without fraternity, liberty and equality could not become a natural course of things. It would require a constable to enforce them."

## **What has changed**

Today, 75 years later, it is well worth asking what progress we have made to achieve the aims of the Constitution's drafters, and in particular to fill the lacunae that Dr. Ambedkar identified. Equality has advanced, no doubt, with the abolition of untouchability being accompanied by the world's oldest and farthest-reaching affirmative action programme, in the form of reservations, initially for Scheduled Castes and then for the Other Backward Classes (OBC). These reservations, which were initially intended to be temporary, have now been entrenched in our system and may be said to be politically unchallengeable. But the task of promoting social and economic equality, which Dr. Ambedkar pointed to, is far from complete. The clamour for further opportunities for those who believe that Indian society continues to deny them the equality of outcomes that the numbers warrant, continues to roil our politics. The escalating demand for a caste census is bound to have further implications for the evolution of India's constitutional practice.

As for fraternity, the mobilisation of votes in our contentious democracy in the name of caste, creed, region and language have ensured that the social and psychological sense of oneness that Dr. Ambedkar spoke about, is still, at best, a work in progress. But there is no doubt that the sense of nationhood that he felt had not yet come into existence has now become embedded across the country. One only needs to look at the crowds at a cricket match involving the Indian team, or the national outrage and mourning after an international conflict such as the Kargil war (1999) or the Galwan incident (2020), to be aware that there is a strong sense of nationhood despite the persistence of local or sectarian identities.

Yet, by reifying caste reservations, India has promoted equality but arguably undermined fraternity. Fraternity had a special place in Dr. Ambedkar's vision; the word was, in many ways, his distinctive contribution to India's constitutional discourse. It also had an economic dimension, with the implicit idea that the assets of the better-off would be used to uplift the



untouchables and other unfortunates. Fraternity would both result from and lead to the erosion of social and caste hierarchies. But, as the sociologist Dipankar Gupta has argued, the extension of reservations to the OBCs saw caste as 'an important political resource to be plumbed in perpetuity'.

Professor Gupta avers that this 'is not in the spirit of enlarging fraternity, as the Ambedkar proposals are'; while Dr. Ambedkar's ultimate aim was the annihilation of caste from Indian society, for Mandal, caste was not to be "removed", but to be "represented". It entrenched caste rather than eliminating it from public life.

## **Highs and worrying lows**

This debate may well go on. Still, we can be grateful that the ascent to power of the very elements of Indian politics who had initially rejected the Constitution has not resulted in its abandonment. There is a certain irony to a Bharatiya Janata Party government celebrating a document that its forebears in the Rashtriya Swayamsevak Sangh and the Jana Sangh had found "un-Indian" and devoid of soul. That soul has evolved over 75 years and 106 amendments, and the Constitution still thrives. But the hollowing out of many of the institutions created by the Constitution, the diminishing of Parliament, pressures on the judiciary and the undermining of the democratic spirit – leading to the V-Dem Institute labelling India as an "electoral autocracy", policed by the "constable" Dr. Ambedkar warned against – mean that much still remains to be done by its custodians.

"Independence," Dr. Ambedkar said in concluding his memorable speech, "is no doubt a matter of joy. But let us not forget that this independence has thrown on us great responsibilities. By independence, we have lost the excuse of blaming the British for anything going wrong. If hereafter things go wrong, we will have nobody to blame except ourselves." Seventy-five years later, let us vow to reduce the number of things we need to blame ourselves for – and let the Constitution show us the way.

**GS Paper 02 : Indian Polity**

**UPSC Mains Practice Question:** Discuss how Dr. B.R. Ambedkar's vision of equality and fraternity remains relevant in addressing contemporary social and economic challenges in India. (150 Words /10 marks)

### Context :

- The article reflects on the 75th anniversary of India's Constitution, highlighting Dr. B.R. Ambedkar's concerns about political equality juxtaposed with social and economic inequalities.
- It examines progress in achieving equality and fraternity while noting persistent challenges, including caste-based divisions and institutional weaknesses.
- The Constitution's resilience amidst evolving socio-political dynamics is emphasized.

### Introduction

- This month marks the 75th anniversary of the adoption by the Constituent Assembly of the draft Constitution of India, on November 26, 1949. The Union government has announced that it intends to commemorate this momentous occasion with a special joint sitting of Parliament. There are bound to be several self-congratulatory speeches, from all sides of our fractious political divide. But the speech that should haunt us all is that of the principal draftsman of the Constitution, B.R. Ambedkar, on the eve of the Constitution's adoption.
  - On November 25, 1949, in his magisterial summation of the work of the Drafting Committee he chaired, and before commending its work to the Assembly, he pointedly observed: "however good a Constitution may be, it is sure to turn out bad because those who are called to work it, happen to be a bad lot.
  - However bad a Constitution may be, it may turn out to be good if those who are called to work it, happen to be a good lot."
  - The working of the Constitution, Dr. Ambedkar pointed out, depended on how the people and the political parties applied it. The drafters had made provision for relatively easy amendment, so as to permit the document to keep up with the needs of the times.
  - But the rest depended on the way successive generations of its custodians chose to implement it.

### The lacunae that B.R. Ambedkar identified

- Dr. Ambedkar highlighted the fact that "there is complete absence of two things in Indian society" — equality and fraternity.
- "On the 26th of January 1950," he declared, "we are going to enter into a life of contradictions. In politics we will have equality and in social and economic life we will have inequality."
  - In politics we will be recognizing the principle of one man one vote and one vote one value.
- In our social and economic life, we shall, by reason of our social and economic structure, continue to deny the principle of one man one value.
- **Key questions:** How long shall we continue to live this life of contradictions?
  - How long shall we continue to deny equality in our social and economic life?"

### The Absence of Fraternity



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- In calling for a social and not merely political democracy to emerge from the Constitution, Dr. Ambedkar stressed the absence of fraternity as the second major ingredient that was missing in India.
- "Fraternity means a sense of common brotherhood of all Indians — of Indians being one people. It is the principle which gives unity and solidarity to social life."
- But thanks to the caste system — the entire structure of caste, he averred, was 'anti-national' — religious divisions and the absence of a common sense of nationhood among some Indians, fraternity had not yet been achieved.
- But it was indispensable, since liberty, equality and fraternity were all intertwined and could not flourish independently of one another.
- "Without equality," he pointed out, "liberty would produce the supremacy of the few over the many. Equality without liberty would kill individual initiative."
  - Without fraternity, liberty would produce the supremacy of the few over the many.
  - Without fraternity, liberty and equality could not become a natural course of things.
- It would require a constable to enforce them."

### **What has changed: Dr. Ambedkar's Vision and Progress After 75 Years**

- Today, 75 years later, it is well worth asking what progress we have made to achieve the aims of the Constitution's drafters, and in particular to fill the lacunae that Dr. Ambedkar identified.
- Equality has advanced, no doubt, with the abolition of untouchability being accompanied by the world's oldest and farthest-reaching affirmative action programme, in the form of reservations, initially for Scheduled Castes and then for the Other Backward Classes (OBC).
- These reservations, which were initially intended to be temporary, have now been entrenched in our system and may be said to be politically unchallengeable.
- But the task of promoting social and economic equality, which Dr. Ambedkar pointed to, is far from complete.
- The clamour for further opportunities for those who believe that Indian society continues to deny them the equality of outcomes that the numbers warrant, continues to roil our politics.
- The escalating demand for a caste census is bound to have further implications for the evolution of India's constitutional practice.

### **The State of Fraternity**

- As for fraternity, the mobilisation of votes in our contentious democracy in the name of caste, creed, region and language have ensured that the social and psychological sense of oneness that Dr. Ambedkar spoke about, is still, at best, a work in progress.
- But there is no doubt that the sense of nationhood that he felt had not yet come into existence has now become embedded across the country.
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### Caste Reservations and Fraternity

- Yet, by reifying caste reservations, India has promoted equality but arguably undermined fraternity.
- Fraternity had a special place in Dr. Ambedkar's vision; the word was, in many ways, his distinctive contribution to India's constitutional discourse.
- It also had an economic dimension, with the implicit idea that the assets of the better-off would be used to uplift the untouchables and other unfortunates.
- Fraternity would both result from and lead to the erosion of social and caste hierarchies.
- But, as the sociologist Dipankar Gupta has argued, the extension of reservations to the OBCs saw caste as "an important political resource to be plumbed in perpetuity".
- Professor Gupta avers that this "is not in the spirit of enlarging fraternity, as the Ambedkar proposals are"; while Dr. Ambedkar's ultimate aim was the annihilation of caste from Indian society, for Mandal, caste was not to be "removed", but to be "represented".
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### Highs and worrying lows

- This debate may well go on.
- Still, we can be grateful that the ascent to power of the very elements of Indian politics who had initially rejected the Constitution has not resulted in its abandonment.
- There is a certain irony to a Bharatiya Janata Party government celebrating a document that its forebears in the Rashtriya Swayamsevak Sangh and the Jana Sangh had found "un-Indian" and devoid of soul.
- That soul has evolved over 75 years and 106 amendments, and the Constitution still thrives.
- But the hollowing out of many of the institutions created by the Constitution, the diminishing of Parliament, pressures on the judiciary and the undermining of the democratic spirit — leading to the V-Dem Institute labelling India as an "electoral autocracy", policed by the "constable" Dr. Ambedkar warned against — mean that much still remains to be done by its custodians.

### Conclusion

- "Independence," Dr. Ambedkar said in concluding his memorable speech, "is no doubt a matter of joy. But let us not forget that this independence has thrown on us great responsibilities.
- By independence, we have lost the excuse of blaming the British for anything going wrong. If hereafter things go wrong, we will have nobody to blame except ourselves."
- Seventy-five years later, let us vow to reduce the number of things we need to blame ourselves for — and let the Constitution show us the way.

