



COLLEGIUM SYSTEM OF JUDICIAL APPOINTMENTS IN INDIA

SC reached its full strength of **34 judges** with the appointment of two new judges recommended by the **Collegium**.

Collegium System

- ☞ India's judicial mechanism for **appointing and transferring judges** (HC & SC).
- ☞ Evolved from SC judgments (**esp by Three Judges Cases**), **not directly mentioned in the Constitution**.

CONSTITUTIONAL BASIS FOR APPOINTMENT OF JUDGES

- ☞ **Article 124:** SC judges appointed by the President in consultation with the CJI & other judges.
- ☞ **Article 217:** HC judges appointed by the President in consultation with CJI, Governor & HC Chief Justice.
- ☞ **Ad hoc Judges (Article 127):** If quorum of SC judges is not available, CJI (with President's consent) can request a HC judge to sit in SC.
- ☞ **Acting CJI (Article 126):** In case of vacancy/absence, senior-most available SC judge appointed by the President.
- ☞ **Retired Judges (Article 128):** CJI may request a retired SC judge to sit & act as SC judge for a specified period with President's consent.

Arguments For and Against the Collegium System

Arguments For

- ☞ Ensures judicial independence from the executive & legislature, upholding **separation of powers (Article 50)**.
- ☞ Senior judges are best placed to assess the legal acumen & integrity of potential judges; this **reduces risks of corruption in appointments**.

Arguments Against

- ☞ Operates in secrecy with no transparency, **encouraging nepotism & favoritism (Uncle Judge Syndrome)**.
- ☞ Concentrates power in a few judges, with **79% of HC judges (2018–2022)** from upper-castes & underrepresentation of marginalized communities/women.
 - ❖ 331 judicial vacancies in HCs (2024) highlight **delays in appointments**.
- ☞ **NJAC (99th CAA, 2014)**, proposed to replace the collegium, was **struck down by the SC in 2015 as unconstitutional**.

BAIL CONDITIONS IN INDIA

US President signed an executive order cutting federal funds to jurisdictions with cashless bail, sparking debates on **bail reforms** in India.

- ☞ **Cashless bail allows release for minor offences without monetary deposit**, unlike traditional bail which requires cash or property surety.

Bail Conditions in India

- ☞ **Bail in India:** Conditional release of an accused before trial, based on the **presumption of innocence**.
 - ❖ Chapter 35 of the **BNSS, 2023**, replacing the CrPC 1973, outlines the bail process.
- ☞ **Bond:** Involves a **written promise by the accused to appear for trial** and follow conditions, usually with a cash deposit.

Evolution of the System

First Judges Case (1981)

- SC held that in the appointment of a judge of the SC or the HC, the word **"consultation"** in Article **124 (2)** and in Article **217** of the Constitution does not mean "concurrence"
- Gave the **executive primacy** over the judiciary in judicial appointments

Second Judges Case (1993)

- SC overruled the First Judges Case
- Gave birth to the **Collegium System (Primacy to the Judiciary)**
- Collegium included the Chief Justice of India and the **2** most senior judges of the SC

Third Judges Case (1998)

- SC expanded the Collegium to include the CJI and the **4** most-senior judges of the court after the CJI

Types of Bails in India

Regular Bail: Court's order to release person under arrest in police custody

Interim Bail: Court grants temporary relief until application for Anticipatory Bail or Regular Bail is decided

Anticipatory Bail: Bail granted preemptively to prevent arrest

Default Bail: When police fail to complete investigation within specified period

Medical Bail: Solely on medical grounds

- ❖ **Deposit can be forfeited if conditions are broken** but is refundable at trial's end.
- ❖ If the accused can't pay, release may be allowed on a Personal Recognizance (PR) Bond, with time to arrange payment.
- ⌘ **Bail Bond: A third party (family, friend, or employer) guarantees** the accused's compliance with bail conditions.
 - ❖ The **deposit is forfeitable** if the accused absconds; Courts verify the surety's documents, finances & residence.

CHALLENGES RELATED TO BAIL REFORMS	RELATED MEASURES
Cash & surety-based bail disproportionately affects poor and marginalized groups.	Expand schemes like Support to Poor Prisoners (2023) to provide funds for those unable to furnish bail.
Excessive pre-trial detention violates the principle of presumption of innocence.	Maintain centralized digital records of bail, sureties, and undertrials.
Courts fail to follow guidelines or record reasons for denial, leading to arbitrariness.	Streamline bail processes , deploy legal aid to assist undertrials; deploy para-legal volunteers and lawyers.
Backlog & overburdened courts cause prolonged pre-trial detention; nearly 70% of India's prison population are undertrials .	Promote reporting conditions or monitoring mechanisms to decongest prisons and prevent repeat criminalization.

CORAL REEFS AS INDICATORS OF RISING SEA LEVELS

Study on [coral microatolls](#) in the Maldives shows **sea-level rise in the central Indian Ocean** began earlier and progressed faster, challenging previous assumptions and **affecting climate science & coastal policy**.

- ⌘ **Coral microatolls** stop growing at low tide levels; making them natural recorders, recording sea-level changes.
 - ❖ They **provide long-term data**, with some surviving for decades/centuries.
- ⌘ **Maldives, Lakshadweep & Chagos** saw a 30–40 cm rise in 50 years.
- ⌘ Environmental factors– **El Niño and the Indian Ocean Dipole** affect coral growth, aiding sea-level tracking.

Sea-Level Rise (SLR)

Causes:

- ⌘ B/w 2005–13, **melting glaciers** contributed nearly **twice as much to SLR as thermal expansion**; Greenland's ice loss increased seven-fold.
- ⌘ Changes in **groundwater & land water sources** add to rising sea levels; sea levels have risen ~ 21–24 cm since 1880.

SLR in the Indian Ocean is 3.3 mm per year, faster than the global average of 3.2 mm.

Impact on Island Nations:

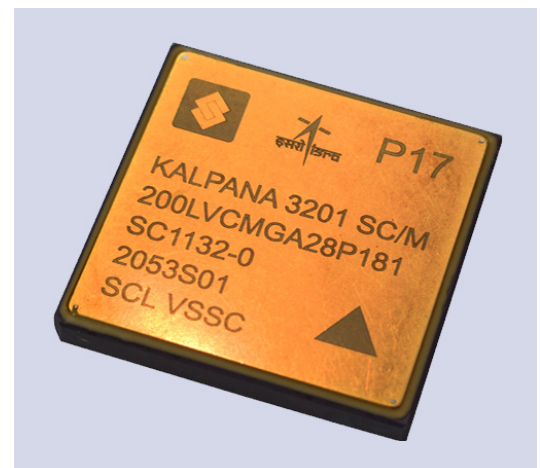
- ⌘ Coastal inundation, freshwater salinization, and habitat destruction; **Maldives & Tuvalu face existential threats**.
- ⌘ Saltwater intrusion/coral degradation harms agriculture and fish stocks; **Kiribati & Marshall Islands face severe water shortages**.
- ⌘ Intensified cyclones & floods damage infrastructure and economies; **Hurricane Dorian caused USD 3 billion damage**.
- ⌘ Erosion & reef destruction reduce tourism; **Barbados faces declining tourism**.
- ⌘ Warmer temperatures **spread vector-borne diseases**; forced migration leads to cultural erosion.

VIKRAM 32-BIT MICROPROCESSOR AND SEMICON INDIA 2025

At **Semicon India 2025**, PM was presented with the **Made-in-India Vikram 32-bit Launch Vehicle Grade microprocessor**, marking a milestone in [semiconductor self-reliance](#).

VIKRAM3201

- ⌘ Developed by [ISRO's Vikram Sarabhai Space Centre](#), Semiconductor Laboratory (Chandigarh) & **KALPANA3201** (32-bit microprocessor designed for open-source tools).
- ⌘ **Advanced version of the 16-bit VIKRAM1601**, used in ISRO launch vehicle avionics since 2009.
- ⌘ Designed for spaceflight, it **withstands -55°C to 125°C**.
- ⌘ Initial validation in space was achieved with the **SpaDeX Mission (PSLV-C60)**, proving reliability.
- ⌘ It has a custom instruction set for **Ada programming & handles tasks like floating-point computation**.



SEMICON INDIA 2025

- 📌 **Theme: "Building the Next Semiconductor Powerhouse."**
- 📌 Implemented through **ISM**, showcases India's growing capabilities in **chip design, packaging & fabrication**.
- 📌 Facilitates **global collaborations, research commercialization** & strengthens India's position in the semiconductor value chain.

CEREBO

ICMR has developed **CEREBO**, an indigenous hand-held device for early detection of **Traumatic Brain Injuries (TBIs)**.

- ⌘ Uses **near-infrared spectroscopy & machine learning** to detect intracranial bleeding and edema.
- ⌘ Provides rapid (within a min.), non-invasive, and radiation-free results, making it **safe for infants & pregnant women**.
- ⌘ **Portable & affordable**; ideal for rural clinics, ambulances, and trauma centers.
- ⌘ While it complements CT scans, it **doesn't replace them for deep tissue assessment**.

DECARBONISING KEY SECTORS IN INDIA

Study by **Centre for Social and Economic Progress (CSEP)** & IMF estimates **India needs USD 467 billion by 2030** to decarbonise sectors responsible for **over 50% of CO₂ emissions**.

Decarbonising Sectors

SECTOR	DECARBONISATION MEASURES
Steel	Carbon Capture & Storage (CCS) , shift to green hydrogen, energy efficiency
Cement	CCS, alternative fuels, clinker substitution
Power (Electricity)	Renewable expansion, grid modernization
Road Transport	EVs, biofuels, charging infrastructure

Decarbonising steel, cement, and power sectors could cut ~6.9 Bn tonnes of CO₂ by 2030.

India's Decarbonisation Targets & Progress

- ⌘ At **COP26** (2021), India presented its **Panchamrit** climate action plan:
 - ❖ Achieving **500 GW** of non-fossil fuel energy capacity by 2030; achieved **~50% target** in 2024.
 - ❖ Meeting **50%** of energy needs from **renewables** by 2030.
 - ❖ Reducing **CO₂ emissions** by **1 Bn tonnes** by 2030.
 - ❖ Cutting **carbon intensity** by **45%** by 2030; achieved **36%** by 2020.
 - ❖ Targeting **Net-Zero emissions** by 2070.

BRAIN-EATING AMOEBAS

Kerala has reported several cases of **Primary Amoebic Meningoencephalitis (PAM)**, caused by the **"brain-eating amoeba."**

- ⌘ **PAM is a rare, fatal brain infection caused by *Naegleria fowleri* amoeba.**
- ⌘ Enters through nose **during swimming in contaminated freshwater**, causing brain tissue destruction.
 - ❖ It is **not spread via drinking water or person-to-person**.
- ⌘ **Early symptoms**– fever, progressing to stiff neck, confusion, seizures, coma, etc.
 - ❖ **Mortality >95%**, often within 1–5 days.
- ⌘ **No effective treatment**; managed with drugs like amphotericin B, azithromycin, fluconazole, etc.

