# DAILY CURRENT AFFAIRS ANALYSIS

# **24 NOVEMBER 2023**

# **1 - Solar Geoengineering:**

# GS III

# Science and Technology related issues

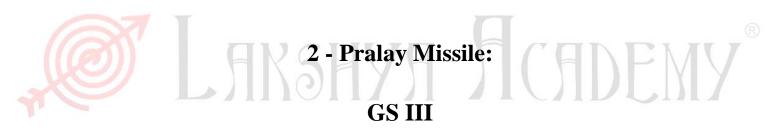
#### • Context:

• Scientists are researching whether atmospheric geoengineering could help control warming and prevent a global climate catastrophe as the world fights to stop burning fossil fuels.

#### • Controlling solar radiation:

- The most well-known idea for solar radiation management (SRM), which aims to reflect solar radiation back into space, is to spray cooling sulphur dioxide into the upper atmosphere.
- It is not a novel concept to introduce sulphur dioxide (SO2) into the atmosphere.
- In 1992, the National Academy of Sciences of the United States put forth the concept.
- Scientists have shown that the globe cools during volcanic eruptions because the massive volumes of SO2 they release into the atmosphere.
- These techniques could end up being more costly and energy-intensive than stratospheric aerosol injection, despite being less invasive and perhaps harmful.
- Problems:
- Adverse consequences of this technique:
- The globe may cool if sulphate aerosols were injected, but the unintended consequences might be even more disastrous.
- It might have an effect on agriculture, weather patterns, and the availability of essential necessities like food and water.
- Monsoon disruption:
- It might sabotage the monsoon and bring about droughts in Asia and Africa.
- Impact on the layer of ozone:
- It might also cause an unsafe increase in acid rain or hinder the ozone layer's regeneration.
- This technology is becoming weaponized:

- The UNEP warned in a report released this year that the technology might potentially be weaponized by "rogue states" or dishonest commercial enterprises, posing new geopolitical and security risks.
- Delay in reaching the climate goals:
- The technology might be used as a justification to put off the transition to net-zero greenhouse gas emissions.
- Even if SRM treatments are successful in reducing temperatures, they will not address other effects of increasing CO2 levels, such as acidification of the ocean.
- Only the short term effects:
- Furthermore, because of its short-term effects, governments may find themselves compelled to use SRM for generations.
- Source  $\rightarrow$  The Hindu



# Science and Technology related issues

- Context:
- The Pralay missile was just fired by India.
- Important information:
- It is a domestically produced, next-generation surface-to-surface weapon.
- The purchase of about 120 Pralay ballistic missiles has been approved by the Indian government as part of a larger initiative to create the Indian Rocket Force (IRF).
- India's tactical ballistic missile deficit is closed by the Pralay missile system.
- Similar weapons are already in the arsenals of China and Pakistan.
- "Pralay" is a 500–1,000 kilogramme short-range, surface–to–surface missile with a 350–500 km short range.
- The Prithvi Defence Vehicle serves as the basis for the solid-fuel combat missile.

- According to him, Pralay was created for deployment along the Line of Control (LoC) and Line of Actual Control (LAC).
- It is comparable to Russia's "Iskander" and China's "Dong Feng 12," which were both employed in the current conflict with Ukraine.
- Source  $\rightarrow$  The Hindu

# 3 - Fighter jet MiG-21:

## **GS III**

## Science and Technology related issues

#### • Context:

- Recently, Indian Air Force (IAF) No. 4 Squadron "OORIALS" MiG-21 fighter jets made their farewell flight over Uttarlai, Rajasthan.
- Important information:
- After using the MiG-21 since 1966, the squadron is currently getting Sukhoi-30 MKI rearmament.
- Against the sanctioned strength of 42 squadrons, the IAF now consists of 31 fighter squadrons.
- About MiG-21:
- Designed in the Soviet Union, the Mikoyan-Gurevich MiG-21 is a supersonic jet fighter and interceptor aircraft.
- Six decades after its first flight, the MiG-21 is still in service with numerous nations, having flown in about 60 countries on four continents.
- It broke records in aviation and became:
- the most manufactured supersonic jet in the history of aviation,
- the most combat aircraft manufactured since the Korean War, and
- Previously, the combat aircraft with the longest production run.
- What purpose did the MiG-21 aircraft serve?

- Having been inducted in 1963, the MiG-21 was the IAF's first supersonic fighter and has been involved in all major battles thereafter.
- The IAF's front-line fighter plane for a considerable amount of time was the supersonic fighter, which has over 800 variants in service.
- Two MiG-21 squadrons, made up of the improved Bison models, are now in service with the IAF:
- the "Cobras" of No. 3 Squadron at Bikaner
- Panthers, No. 23 Squadron at Suratgarh.
- The MiG-21s proved their real mettle in the 1971 Bangladesh War.
- Issues:
- Over 400 accidents involving the MiG-21 fleet over a period of 60 years resulted in the deaths of about 200 pilots.
- The IAF had planned to phase out the MiG-21s considerably sooner, but it had to wait for the arrival of newer aircraft, particularly the LCA Tejas.
- The substitute for the MiG:
- The Indian Air Force has inducted two squadrons of LCA Tejas and two squadrons of Rafale fighter jets that were purchased from France in the past few years.
- Hindustan Aeronautics Limited (HAL) and the IAF inked a deal in 2021 for 83 LCA Mk1A, which the IAF will begin receiving in early 2024.
- Both the fifth generation Advanced Medium Combat Aircraft (AMCA) and a bigger LCA-Mk2 are currently in development.
- Source  $\rightarrow$  The Hindu

# 4 - Collegium suggests three High Court Chief Justices be appointed to the SC:

# GS II

# Judiciary related issues

#### • Context:

• The Chief Justices of three High Courts have been recommended for appointment to the highest court by the Collegium led by Chief Justice of India D.Y. Chandrachud.

#### • Important information:

- The court has 31 judges in operation at the moment, while 34 judges is the authorised strength.
- Prior to 1993, the Chief Justice and the two other senior Supreme Court judges were consulted when the President of India appointed judges.
- Although the President of India is the official appointing authority, since 1993 the Collegium system, developed by the Supreme Court, has made decisions about the appointments and transfers of judges in the higher court.
- The divisions between the judiciary and the executive led to the creation of the Collegium.
- Although the Indian Constitution makes no reference of the Collegium system, it has developed as a result of three rulings by the Supreme Court, generally referred to as the Three Judges Cases (1981, 1993, and 1998).

#### • The Collegium: What Is It?

- A body known as the Collegium, presided over by the Chief Justice of India (CJI) and made up of four of the Supreme Court's most senior judges, makes decisions about judge transfers and appointments to the higher judiciary.
- The process for selecting justices to the Supreme Court:
- The Constitution's Article 124(2) specifies the procedure for selecting judges for the higher judiciary. It states:
- Each Supreme Court judge will be selected by the President following consultation with other justices on the court and state high court judges.
- The Chief Justice of India will always be contacted when a judge other than the Chief Justice is to be appointed.

- The Chief Justice of India and his four most senior colleagues suggest candidates to the President for appointment as SC and HC judges under the Collegium system.
- There are currently six judges in the Collegium as opposed to five.
- This is due to the fact that the next Chief Justice must be a member of the Collegium and that none of the four senior most justices will hold that position.
- Thus, Chief Justice DY Chandrachud's successor as the next Chief Justice of India will be Justice Sanjiv Khanna, who is now the sixth member of the Collegium.
- There are two categories of suggestions sent to the Supreme Court by the Collegium:
- One is the date of high court justices' elevation to the Supreme Court; and
- Two, when experienced solicitors are named directly to the Supreme Court as justices.

# • There are just three judges in the Supreme Court Collegium who can be appointed to the higher courts:

- The Indian Chief Justice and
- two judges with the most seniority.
- The Collegium appoints judges to the Supreme Court, currently numbering six judges.
- Similar to the Supreme Court, the high courts also have a Collegium, which is led by the chief justice and consists of the two most senior judges.
- Only the Supreme Court Collegium receives recommendations from the High Court Collegium about judicial appointments.
- The process for assigning judges to supreme courts:
- The state government receives recommendations for nominations or elevations to the high courts from the HC collegium, which consists of the HC Chief Justice and two senior-most justices.
- With its input, the State Government forwards the names to the Centre.
- The names are provided by the Centre to the Intelligence Bureau (IB) for background investigations.
- The Supreme Court Collegium (CJI + 2 Senior-most judges) receives the IB's report after that.
- After reviewing the IB report, the SC Collegium suggests the nominees for nomination to the Centre.
- The appointments may be accepted by the Centre, or it may send the dossier back to the Collegium for additional review.
- The names that the Centre has returned for further review may be repeated by the Collegium.
- The candidate must be appointed by the Centre if the Collegium recommends the same name.
- However, there isn't a certain amount of time to do this.
- The appointment of judges to the Supreme Court is handled similarly, adhering to the guidelines outlined in the Memorandum of Procedure (MoP).
- The first recommendation, however, is directly from the Supreme Court Collegium.

#### • The Collegium System's Evolution:

#### • The Supreme Court has interpreted the word "consultation" differently:

- The Supreme Court ruled in the First Judges case (1982) that "consultation" as employed in Articles 124 and 217 did not imply "concurrence."
- It just suggests a sharing of opinions.
- The First Judges Case ruling tipped the scales in favour of the administration in the High Court judge nomination process.
- For the next twelve years, this was the state of affairs.
- In the 1993 Second Judges case, the Court overturned its previous decision and redefined concurrence as the new meaning of the word consultation.
- Thus, it decided that the President must heed the opinion provided by the Chief Justice of India when it comes to appointing Supreme Court judges.
- However, the Chief Justice would offer his opinion on the subject only after speaking with two of his most senior colleagues.
- The Court said in the Third Judges case (1998) that "consultation of plurality judges" is a prerequisite for the Chief Justice of India to initiate a consultation process.
- The consultation procedure is not limited to the chief justice of India's opinion.
- He ought to confer with the collegium of four senior Supreme Court judges, and he must to forward the suggestion to the administration even in the event that two judges express dissent.
- Thus, in accordance with convention, the most recent ruling in the Third Judges case (1998) is applied when appointing judges.

#### • Supporters of the collegium system argue:

- It separates the judiciary from the political branch.
- The system is thought to prevent outside influence on the appointment of future judges because it is kept apart from both the legislative and executive branches.
- It respects the candidates' seniority and is meant to follow the Constitution's ideas of the separation of powers.
- Many worry that the judiciary's independence may have to be compromised as a result of the government's involvement.

#### • Arguments against the system of collegium:

- Without a distinct secretariat or intelligence-gathering system devoted to obtaining and verifying the personal and professional backgrounds of potential candidates, the administrative burden of appointing and moving judges exists;
- It operates behind closed doors without an official, open system;

• the selection of senior judges from the High Court as the collegium's only option for Supreme Court nominations, leaving out a number of deserving junior justices and lawyers.

#### • Proposed substitute for the collegium:

- Parliament passed the Constitution (99th Amendment) Act in 2014, which created the NJAC Act and the National Judicial Appointment Commission (NJAC) to replace the Collegium system with a commission for appointing judges.
- This would basically enlarge the role of the government in appointing judges.

#### • The NJAC was to be made up of:

- the Indian Chief Justice serving as the Chairperson ex officio,
- two ex officio members who are the most senior Supreme Court judges,
- the ex officio member of the Union Minister of Law and Justice, and

#### • Two notable members of the civic society:

- A committee made up of the Chief Justice of India, the Prime Minister, and the Leader of the Opposition in the Lok Sabha would nominate one of them, and
- The other would come from women or members of the SC, ST, OBC, or minority communities.
- October 2015 saw the repeal of the laws following the Supreme Court's decision to overturn them.

#### • The next step:

- The solid foundation of majoritarian regimes around the world, including India, is matched by the institutional collapse in terms of the SCI's judicial independence and autonomy.
- Since the public of India and other countries is keeping a close eye on the judiciary as an institutional tool for administering justice and an organ of democracy, the new Chief Justice's libertarian and rights-based approach is crucial for democratic government.
- It is worthwhile to take into consideration the National Commission to Review the Working of the Constitution's (NCRWC) advice to form a National Judicial Commission with appropriate adjustments and revisions.
- In order to make such suggestions, it would be beneficial to have a participatory approach in which the court and the executive branch are involved.
- The executive's opinions and viewpoints may be considered during the consultation process.
- It makes sense that decisions made by the two branches of government are superior to those made by a single branch in order to uphold the ideals of good governance, which include democratic representation, legitimacy, accountability, and transparency.
- The appointment of judges is not an exception to the rule that judicial accountability is an integral aspect of the judiciary's independence.

- For improved legitimacy, accountability, and transparency, civil society representation and democratic voices must be considered when selecting judges.
- Source  $\rightarrow$  The Hindu

## 5 - The initiative to raise awareness on the Indo-Pacific Maritime Domain:

# GS II

## **International issues**

#### • Context:

• The Indo-Pacific Maritime Domain Awareness (IPMDA) initiative, which was recently unveiled by the Quad grouping, was praised by the chief admiral of India's Navy as evidence of the region's commitment to a free, open, inclusive, and rules-based Indo-Pacific.

#### About the initiative:

- The Indo-Pacific Marine Domain Awareness (IMPMDA) initiative aims to improve maritime domain awareness and boost transparency of the Indo-Pacific region's vital waterways through technology and training.
- IPMDA provides partners in Southeast Asia, the Indian Ocean region, and the Pacific with almost real-time information on activities taking place in their maritime zones by utilising cutting-edge technologies, such as commercial satellite radio frequency data collecting.
- The [IPMDA] effort aims to establish:
- a thorough system for keeping an eye on and safeguarding marine operations in the Indo-Pacific,
- guaranteeing the security of vital maritime communication routes, and
- encouraging collaboration amongst the region's like-minded countries.
- During the Tokyo conference in early 2022, the Quad grouping—which consists of the United States, Japan, Australia, and India—announced the IPMDA.
- Goal:
- to integrate three crucial Indo-Pacific regions in order to follow black ships and create a quicker, more comprehensive, and more accurate maritime picture of near-real-time operations in partners' waters:

- the Islands in the Pacific,
- Southeast Asia, as well as
- the region of the Indian Ocean.
- advantages for nearby partners
- It enhances the capacity of Indo-Pacific partners to quickly identify and address a variety of issues related to illicit maritime activities, including unauthorised, unreported, and unregulated fishing, natural disasters, and humanitarian emergencies.
- Regional information centres are also a part of the effort, which aids in creating an operational image of the maritime domain that is shared throughout the Indo-Pacific area.
- Source  $\rightarrow$  The Hindu

