



News Analysis (27 Jul, 2020)

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Maratha Quota

Why in News

The **Supreme Court** (SC) is set to commence the final hearing on the batch of **Special Leave Petitions** (SLPs-**Article 136**) against **Maratha reservation in Maharashtra** on a daily basis through video-conferencing.

The apex court will also hear a petition challenging admission to postgraduate medical and dental courses under the quota in the state.

Key Points

- The SLPs **challenged the Bombay High Court (HC) decision**, which **upheld the constitutional validity of the Maratha quota** under the state's **Socially and Educationally Backward Classes (SEBC) Act, 2018**.
 - The SEBC Act provides for **reservation of seats for admission in educational institutions** in the state and for **reservation of posts for appointments in public services** and posts under the state.
- Maharashtra is **one of the few states which have more than 50% reservation**.
 - **Tamil Nadu, Haryana and Telangana** also exceed the reservation cap.
 - **Indra Sawhney case 1992** ruled that the **total reservation for backward classes cannot go beyond the 50% mark**.
- **Background:**
 - A group of aspiring medical students **challenged the constitutional validity of an amendment to the SEBC Act, 2018** allowing Maratha reservation for 2019-2020 admissions to MBBS courses.
 - In July 2019, the **Bombay HC dismissed** the petition.
 - The **SC refused to stay the judgement** and have, time and again, refused to put an interim stay on the quota.
 - Recently, the **SC refused to grant interim stay on a plea** by medical students, seeking a direction that the **12% quota not be made applicable for admissions** in postgraduate medical and dental courses for the **academic year 2020-21**.

- **Marathas:**

- It is a **politically dominant community in Maharashtra** comprising mainly **peasants and landowners** and forms **nearly one-third of the population** of the state.

Majority of the Chief Ministers of the state have been from this community since the formation of the state in 1960.

- Marathas are **mostly Marathi-speaking** but not all Marathi-speaking people belong to the Maratha community.
- Historically, they have been **identified as a ‘warrior’ caste** with large land-holdings.
- While the division of land and agrarian problems over the years have led to a decline of prosperity among the middle class and lower-middle-class Marathas, the community **still plays an important role in the rural economy.**

- **Bombay High Court Ruling:**

- In **July 2019**, it ruled that the **16% quota granted by the state was not ‘justifiable’ and reduced it to 12% in education and 13% in government jobs**, as recommended by the 11-member **Maharashtra State Backward Class Commission (MSBCC)**.
- The limit of the reservation **should not exceed 50%** but in **exceptional circumstances and extraordinary situations, this limit can be crossed** subject to availability of quantifiable and contemporary data reflecting backwardness, the inadequacy of representation and without affecting the efficiency in administration.
- While the **backwardness of the community** was not comparable with Scheduled Castes (SCs) and Scheduled Tribes (STs), it was **comparable with several other backward classes**, which find a place in the list of Other Backward Classes (OBC) pursuant to the **Mandal Commission.**

- **Findings of Maharashtra State Backward Class Commission:**

- It surveyed about 45,000 families from two villages from each of 355 talukas with more than 50% Maratha population.
 - **Social Backwardness:**
 - 76.86% of Maratha families are engaged in agriculture and agricultural labour for their livelihood.
 - Nearly 70% reside in Kachha dwellings.
 - Only 35-39% have personal tap water connections.
 - During 2013-2018, total 13,368 farmers committed suicides and 23.56% of them were Marathas.
 - 88.81% of Maratha women are involved in physical labour for earning a livelihood, besides their physical domestic work.
 - **Educational Backwardness:**

13.42% of Marathas are illiterate, 35.31% primary educated, 43.79% Secondary and Higher Secondary educated, 6.71% undergraduates and postgraduates and 0.77% technically and professionally qualified.
 - **Economic Backwardness:**
 - 93% of Maratha families have an annual income of Rs. 1 lakh, which was below the average income of middle-class families.
 - 37.38% of families were **Below Poverty Line** (BPL) against the state average of 24%.
 - 71% own less than 2.5 acres of land, whereas only 2.7% of big farmers own 10 acres of land.
 - The commission **submitted its report on 15th November 2018** in which it established that the **Maratha community is socially, economically and educationally backwards** and also **established inadequacy of representation of the Maratha community in public employment** in the state.
- **Existing Total Reservation in Maharashtra:**
 - Following the **2001 State Reservation Act**, the total reservation was **52%**.
 - This included quotas for SCs (13%), STs (7%), OBCs (19%), Special Backward Class (2%), Vimukta Jati (3%), Nomadic Tribe B (2.5%), Nomadic Tribe C-Dhangar (3.5%) and Nomadic Tribe D-Vanjari (2%).
 - The quotas for Nomadic Tribes and Special Backward Classes have been carved out of the total OBC quota.
 - With the **addition of 12-13% Maratha quota**, the total reservation in the state is **64-65%**.
 - The **10% Economically Weaker Sections** (EWS) quota is **also effective** in the state.

Source: IE

Contempt of Court

Why in News

Recently, the **Supreme Court of India** suo moto initiated the proceedings for **criminal contempt of court** against lawyer-activist Prashant Bhushan for his tweet criticising the current Chief Justice of India and the role of some Chief Justices of India in the last six years.

Key Points

- **Constitutional Provisions:**
 - **Article 129:** Grants Supreme Court the power to punish for contempt of itself.
 - **Article 142(2):** Enables the Supreme Court to investigate and punish any person for its contempt.
 - **Article 215:** Grants every High Court the power to punish for contempt of itself.
 - However, the expression 'contempt of court' has **not been defined by the Constitution.**
- **Contempt of Courts:**
 - As per the **Contempt of Courts Act 1971**, **contempt refers** to the offence of showing disrespect to the dignity or authority of a court. The Act divides contempt into **civil and criminal contempt.**
 - **Civil contempt:** It is willful disobedience to any judgment, decree, direction, order, writ or other processes of a court or wilful breach of an undertaking given to the court.
 - **Criminal contempt:** It is any act which may result in:
 - **Scandalising the court** by lowering its authority.
 - **Interference** in the due course of a judicial proceeding.
 - An **obstruction in the administration** of justice.
 - The Contempt of Courts Act 1971 was **amended in 2006** to include **the defence of truth** under **Section 13** of the original legislation. Implying that the **court must permit justification by truth as a valid defence** if it is satisfied that it is in the public interest.
 - Further, **innocent publication** and distribution of some matter, **fair and reasonable criticism** of judicial acts and comment on the administrative side of the judiciary **do not amount to contempt of court.**
- **Punishment for Contempt of Court:**
 - The **Supreme Court and High Courts** have the power to **punish for contempt of court**, either with simple imprisonment for a term up to six months or with fine up to Rs. 2,000 or with both.
 - In **1991**, the **Supreme Court ruled** that **it has the power to punish for contempt not only of itself but also of high courts, subordinate courts and tribunals functioning in the entire country.**
 - On the other hand, High Courts have been given special powers to punish contempt of subordinate courts, as per **Section 10 of the Contempt of Courts Act of 1971.**
- **Need for Contempt Law:**
 - **To insulate the judiciary from unfair attacks** and prevent a sudden fall in the judiciary's reputation in the public eye.
 - It helps judges to do their duties of deciding cases **without fear, favour, affection or ill will.**

- **Issues with Contempt Law**

- **Article 19(1)(a)** of the Constitution gives the **right to freedom of speech and expression to all citizens**, while “**contempt provisions**” curb people’s freedom to speak against the court’s functioning.
- The law is **very subjective** which might be used by the judiciary **arbitrarily to suppress their criticism** by the public.

For example, the assessment of the ground of **scandalizing the court**, depends, to a great degree, on the temperament and preference of the judge. What could be contempt to Judge A may not be contempt to Judge B.

Way Forward

- The contempt of court should not be allowed to be used as a means to prevent criticisms. In contemporary times, it is more important that courts are seen to be concerned about accountability, that allegations are scotched by impartial probes rather than threats of contempt action, and processes are transparent.
- In this backdrop, there is a need to revisit the need for a law on criminal contempt, where India can learn from Britain which abolished the offence of scandalizing the judiciary as a form of contempt of court in 2013 based on the fact that the law was vague and not compatible with freedom of speech.

Source: TH

Parliamentary vs Presidential Form of Government

Why in News

Recently, it has been suggested that India **should adopt the presidential form of government** instead of the **parliamentary** style of democracy, inherited from the British.

These suggestions have been given in the **backdrop of frequent elections** and related administrative as well as financial burden owned by India.

Parliamentary System of Government

- There are **two executives**:
 - The nominal executive is the head of state e.g. President while the real executive is the Prime Minister, who is the head of government.
- In such a system, the role of president or monarch is primarily ceremonial and the Prime Minister along with the cabinet wields effective power.
- Countries with such a system include Germany, Italy, Japan, United Kingdom as well as Portugal.
- The Constitution of India provides for a parliamentary form of government, both at the Centre and in the States.
 - Articles 74 and 75 deal** with the parliamentary system of government at the Union level and **Articles 163 and 164** contain provisions with regard to the States.
- **Executive is responsible** to the legislature for its policies and acts.

Presidential System of Government

- There is only **one executive**.
- In this system, the President is both head of state and government, e.g. USA, South Korea etc.
- The executive is **not responsible to the legislature** for its policies and acts, and is constitutionally independent of the legislature in respect of its term of office.

Key Points

- **Arguments Against the Parliamentary System:**
 - **Unqualified Legislators:** The parliamentary system has created unqualified legislators, who have sought election only in order to wield executive power.

It limits **executive posts to those who are electable** rather than to those **who are able**, e.g. the prime minister cannot appoint a cabinet of his choice; he has to cater to the wishes of the political leaders of several parties.
 - **Powerful Executive:** Most of the laws are drafted by the executive and parliamentary input into their formulation and passage is minimal. It has been seen that the ruling party issues a whip to its members in order to ensure unimpeded passage of a bill.
 - Since defiance of a whip itself attracts disqualification, MPs blindly vote as their party directs.
 - Hence, the parliamentary system does not permit the existence of a legislature distinct from the executive.
 - **Fickle Legislative Majority:** It has forced governments to concentrate less on governing than on staying in office, and obliged them to cater their coalitions.

It puts insurance on **defections and horse-trading**. The **anti-defection Act of 1985** has failed to cure the problem, since the bargaining has shifted to getting enough **MLAs to resign to topple a government**, while promising them offices when they win the subsequent by-elections.
 - **Distorted Voting Preference:**

It has distorted the voting preferences of an electorate that knows which individual it wants to vote for but not necessarily which party.

- **Arguments in Favour of Presidential System:**

- **Stable Executive:** It establishes a stable executive which does not depend upon the **fluctuating will of the legislature** especially in case of coalition governments.

A system of directly elected chief executives at all levels – panchayat chiefs, town mayors, Chief Ministers (or Governors) and a national President – elected for a fixed term of office, invulnerable to the whims of the legislature, and with clearly defined authority in their respective domains – would permit India to deal more efficiently with its critical economic and social challenges.

- **Ability Over Electability:** Cabinet posts would not be limited to those who are electable rather than those who are able.

The President can appoint anyone as secretaries (equivalent to minister).

- **Effective Check and Balance:** It establishes the presidency and the legislature as two parallel structures. This allows each structure to **monitor and check the other**, hence preventing the abuse of power.

- **Role of Citizens:** At the end of a fixed period of time, the public would be able to judge the individual's performance, rather than on political skill at keeping a government in office.

Further, the Indian voter will be able to vote directly for the individual he or she wants to be chosen as a head rather than a majority of **Members of Parliament** and **Legislative** assembly.

- **Argument Against the Presidential Form:**

- **Lack of Cooperation:** A weakness of the system is its failure to ensure the **co-operation between law-makers and administrators**.

Frequent conflicts between the legislature and the executive may lead to **deadlocks**.

- **Autocratic:** A presidential system **centralises power in one individual** unlike the parliamentary system, where the Prime Minister is the first among equals. The surrender to the authority of one individual, as in the presidential system, is dangerous for democracy.
- **Concerns over Separation of Powers:** If the legislature is dominated by the same party to which the **President belongs**, he may prevent any move from the legislature.

- **Benefit of Parliamentary System:**

- **Ensures Diverse Representation:** By looking at the diversity and the number of parties from different states, India needs a diverse cabinet to fulfill the aspirations of millions.

Hence, the parliamentary system ensures the **regional representations** by selecting candidates from different parts of the country.

- **Basic Structure of Constitution:** It is part of the **basic structure of the Constitution**. Altering the parliament system would face legal hurdles.
- **Prevents Authoritarianism:** Since the executive is responsible to the legislature, and can vote it out in a motion of no confidence, there is no authoritarianism. Also, unlike the presidential system, power is not concentrated in one hand, rather in a **group of individuals** (Council of Ministers).
- **Better Coordination:** Since the executive is a part of the legislature, and generally the majority of the legislature support the government, it is easier to pass laws and implement them.
- **Matured System:** It is an old system and can give new ideas with its experience in a democratic setup.

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- We should ensure a system of government whose leaders can focus on governance rather than on staying in power. The present parliamentary system has been tried and tested for nearly 70 years. It can be reformed thoroughly to remove the challenges thrown up by it.
 - Further there is a need to reform the electoral processes to make democracy more robust. The debate should be on **various loopholes in electoral processes** i.e from limiting expenditure of political parties and deciding the ceiling on the expenditure, to holding simultaneous elections, declaring the results for a combination of booths instead of constituencies, etc.

Source: IE

Collaboration with Israel in Defence Sector under FDI

Why in News

India has collaborated with the Israeli defence companies under the new liberalised **Foreign Direct Investment** (FDI) regime in **defence manufacturing**.

- Earlier, the government has increased the limit for **FDI in defence** through the automatic route from **49% to 74%**.
- FDI is an **investment made by a firm or individual** in one country into business interests located in another country.

Key Points

Context: Recently, the Defence Ministry has given **emergency powers to the Armed Forces** to procure weapons systems up to Rs. 300 crore on an urgent basis without any further clearances **to cut short the procurement cycle**.

- Therefore, Indian Armed Forces are undertaking a series of emergency defence purchases amid ongoing **tensions with China on the border**.
- The Army has decided to order launchers, **Spike Anti-Tank Guided Missiles** (ATGM) and additional **Heron Unmanned Aerial Vehicles** (UAV), from Israel through the emergency procurement route.

India-Israel Defence Cooperation

- **Description:** The strong bilateral ties of India and Israel are driven by their respective national interests—i.e., India's long-sought goals of **military modernisation**, and Israel's comparative advantage in **commercialising its arms industries**.
 - The ambit of defence cooperation has widened to include other domains like **space, counter-terrorism, and cyber security and intelligence sharing** besides Israeli arms sales to India.
 - **India** was the **largest arms customer of Israel in 2017** with sales worth 715 million USD.
 - According to the **Stockholm International Peace Research Institute (SIPRI) report**, **Israel** is the **third largest supplier of defence items** to India after **Russia and the USA**, the first and second respectively.

- **Historical Ties:** The strategic cooperation between the two countries began during the **Sino-India War of 1962**.
 - In 1965, Israel supplied M-58 160-mm mortar ammunition to India in the war against Pakistan.
 - It was one of the few countries that **chose not to condemn India's Pokhran nuclear tests in 1998**.
 - It continued its arms trade with India even after the sanctions and international isolation after the nuclear tests.
- **Significance:**
 - **Patrolling and Surveillance:** The Israeli imports ease the operational ability of armed forces in wartime. For instance, the missile defence systems, and ammunition played a crucial role in controlling the escalation between India and Pakistan **post-Balakot air strikes**.
 - **Make in India:** The export-oriented Israeli defence industry and its openness to establishing joint ventures complement both '**Make in India**' and '**Make with India**' in defence.
 - **Trusted Supplier:** Israel has always been a 'no-questions-asked supplier', i.e., it transfers even its most advanced technology without placing limits to its use.
 - Its credibility was reinforced during the **Kargil War of 1999** when it supplied the **Indian Air Force (IAF)** with the Unmanned Aerial Vehicle (UAV) 'Searcher' and surveillance systems for Jaguar and Mirage squadrons.
 - Similar weapons were used in the **Balakot strike** in February 2019.
 - **Ready to Use Technology:** India suffers from many constraints in defence production and acquisition including lack of technical expertise, lack of manufacturing infrastructure, inadequate funding and project delays. Israel fills these shortcomings by **supplying ready-to-use critical technologies**, even on short notices.
- **Challenges:**
 - **Influence of USA:** Some of the **Israeli technologies utilise USA components** because of which the USA has veto powers over the sale of those technologies. Hence, it may cause hurdles in transportation of technologies.
 - **Cold War Politics:** The potential of **India-Israel ties** have been sacrificed on the altar of Cold War politics. Factors like **Arab-Israeli conflict, Iran-Israel conflict, constant interference of countries like Russia and USA** in such issues and overall relationship of India with these countries have impacted the ties with Israel.
 - **Non Alignment:** India's commitment to the **non-alignment** causes freezing relations with Israel that were increasingly seen as leaning towards the Western bloc. India must strategically balance its relationship with Israel on conflict issues.
 - **Dependence for Energy Security:** India's dependence on Arab states for oil imports led to a pro-Arab tilt in its West Asia Policy, which has further constrained Israel's options in the region.
 - **Israel Palestine Conflict:** The **territorial conflicts of Gaza Strip and West Bank** have played an important role in shaping India-Israel relationships.
 - Due to Israel-Palestine peace negotiations (**Oslo Accords of 1993**) **India** has started normalising the relationship with Israel.
 - However, as a part of **Link West Policy**, India has de-hyphenated its relationship with **Israel and Palestine in 2018** to treat both the countries mutually independent and exclusive.

Defence Technologies Imported by India

- **Unmanned Aerial Vehicles (UAVs):**
 - **Searcher:** It is a **multi-mission tactical UAV** for surveillance, target acquisition, artillery adjustment and damage assessment.
 - **Hermes 900:** In December 2018, Adani Defence and Elbit Systems inaugurated the **first India-Israel joint venture in defence** at Hyderabad.
This facility will manufacture high-technology, cost-effective Hermes 900 to be deployed in all-weather terrains.
 - **Heron:** It is a **medium-altitude long-endurance** unmanned air vehicle (UAV) system primarily designed to perform strategic actions .
- **Air Defence Systems:**
 - **BARAK:** The **surface-to-air missile** can be deployed as a low-range air defence interceptor. In India, the **BARAK** version is known as BARAK-8 (for naval vessels).
- **Missiles:**
 - **Spike:** These are the **4th generation Anti-Tank Missiles** with a range of up to 4km, which can be operated in fire-and-forget mode.
These are manufactured by the Rafael Advanced Defence Systems, Israel.
 - **Crystal Maze:** It is an **Indian variant of the air-to-surface missile AGM-142A Popeye** – jointly developed by the Israeli-based Rafael and US-based Lockheed Martin.
- **Sensors:**
 - **Search Track and Guidance Radar (STGR):** India imported the STGR radar to make **INS Kolkata, INS Shivalik and Kamorta-class frigates** compatible for deploying BARAK-8 SAM missiles.
 - **Phalcon:** This airborne warning and control system (AWACS), is also hailed as Indian Airforce Force's "**eyes in the skies**".
 - Phalcon performs **surveillance and intelligence gathering beyond the visual range** to warn against the incoming missiles or aircrafts in the airspace.

Way Forward

- The **strategic cooperation between India and Israel** carries immense potential and India must **harness the technological expertise from Israel** to modernise an indigenous defence industry.
- As the USA sees a major role for India in **maintaining the balance of power** in the **Indo-Pacific** more technologies are likely to be transferable in the future. With improving **strategic understanding between India and the US** these technologies can be flexibly deployed to various wings of the military.
- Indo-Israel **defence cooperation must be up-scaled** in terms of **Joint Ventures (JV) and Joint Research and Development (RD)** which can be a force multiplier to realistically achieve India's ambition to be a major global power.

Source: TH

Seismicity Study of Arunachal Himalaya

Why in News

Recently, a study by the **Wadia Institute of Himalayan Geology (WIHG)**, pertaining to the exploration of the elastic properties of rocks and seismicity in **Arunachal Himalaya**, has revealed that the area is **generating moderate earthquakes at two different crustal depths**.

- WIHG is an autonomous institute of the Department of Science & Technology (DST), Government of India.
- The region has been placed into **Seismic Zone V**, thus most vulnerable to earthquakes.

Key Points

- **The Study:**
 - WIHG has installed 11 broadband seismic stations (connected through the **Global Positioning System**) along the **Lohit River Valley of Arunachal Himalaya** to understand the elastic properties of rocks and seismicity in the **easternmost** part of India.
 - It used both **teleseismic (earthquakes that occur more than 1000 km from the measurement site)** and **local earthquake data** with the help of **seismometers**.

A **seismometer is an instrument** that responds to ground motions, such as caused by earthquakes, volcanic eruptions, and explosions.
- **Latest Findings:**
 - **Two Different Crustal Depths: Low magnitude earthquakes** are concentrated at **1-15 km depth**, whereas slightly higher than **4.0 magnitude earthquakes** are mostly generated from **25-35 km depth**.

The **intermediate-depth is devoid of seismicity** and coincides with the zone of fluid/partial melts.
 - **High Poisson's Ratio:** Extremely **high Poisson's ratio** was also obtained in the higher parts of the **Lohit Valley**, indicating the presence of fluid or partial melt at crustal depths.
 - **Poisson's ratio** is a measure of the Poisson effect that describes the expansion or contraction of a material in directions perpendicular to the direction of loading.
 - A **high Poisson's ratio denotes** that the material exhibits large elastic deformation, even when exposed to small amounts of strain.

- **Significance:**

- **Underthrusting of the Indian Plate:**

- Himalaya is a result of collision between the Indian and the Eurasian plates about 50-60 million years ago. Due to continuous underthrusting of Indian plate beneath the Eurasian plate, stresses are increasing and accumulating progressively in the Himalayas.

The Eurasian Plate is a tectonic plate which includes most of the continent of Eurasia (a landmass consisting of the traditional continents of Europe and Asia), with the exceptions of the Indian subcontinent, the Arabian subcontinent, and the area east of the Chersky Range in East Siberia.

- This process keeps **modifying the drainage patterns and landforms** and is the pivotal reason for causing an **immense seismic hazard in the Himalayan mountain belt** and adjoining regions, necessitating assessment and characterization of earthquakes in terms of **cause, depth and intensity**.
- **The Tuting-Tidding Suture Zone:** TTSZ is a **major part of the Eastern Himalaya**, where the Himalaya takes a sharp southward bend and **connects with the Indo-Burma Range**.

This part has gained importance in recent times due to the **growing need of constructing roads and hydropower projects**, therefore emphasising the need for understanding the pattern of seismicity in this region.

- **Crustal Thickness:** The crustal thickness in this area varies from 46.7 km beneath the Brahmaputra Valley to about 55 km in the higher elevations of Arunachal, with a marginal uplift of the contact.
 - This marginal uplift defines the boundary **between crust and the mantle**, technically called the **Moho discontinuity**.
 - The Moho discontinuity has been defined by the **distinct change in velocity of seismological waves** as they pass through changing densities of rock.

Source: PIB

Russia Accused of Testing Anti-Satellite Weapon

Why in News

Recently, the **USA and the UK have accused Russia** of test-firing a **space-based anti-satellite weapon**.

Key Points

- **USA's Claims:**

- The test consisted of **Russia's satellite called Cosmos 2543** injecting an object into orbit.
 - Cosmos 2543 operated in abnormally close proximity to a USA government satellite in **low-earth orbit** (LEO) before it manoeuvred away and over to another Russian satellite.
 - **This test is inconsistent with the intended purpose of the satellite as an inspector system.**
- It is evidence of Russia's continuing efforts to develop and test space-based systems to put USA's weapons and allied space assets at risk.
- The USA will discuss the issue during the talks for the **New Strategic Arms Reduction Treaty** (START).

It is a treaty between the **USA and the Russian Federation** on measures for the further **reduction and limitation of strategic offensive arms.**
- The **USA Space Force** was created for the defence of its satellites in December 2019.

- **Russia's Clarifications:**

- The Russian defence ministry said that Cosmos-2543 is an **inspector satellite, meant to monitor the condition of Russian satellites.**

Cosmos-2543 was deployed by another satellite, Cosmos-2542, which was launched on **25th November 2019** by the Russian military.
- Russia held that it is **fully committed to obligations on the non-discriminatory use and study of space with peaceful aims.**
- It has asked the USA and the UK to be professional and refrain from propagandistic information attacks.

- **Anti-Satellite Capability:** Only **four countries** which are **Russia, the USA, China and India**, have demonstrated an **anti-satellite capability** over the past decades.

- In **March 2019**, India under the **Mission Shakti**, successfully tested the **Anti-Satellite System** (A-SAT) System making it the fourth country to acquire the capability of space warfare.
- A-SAT System is a **missile-based system to attack moving satellites** and successfully destroyed a live satellite in the LEO.
- **Defence Research and Development Organisation** (DRDO) has developed the system completely indigenously.

- **International Treaties Regarding Outer Space:**

- **UN Outer Space Treaty 1967:** It prohibits weapons of mass destruction in outer space and not the ordinary weapons. **India ratified** it in 1982.
- **UN Transparency and Confidence Building Measures (TCBMs):** It includes registering space objects with the UN register, pre-launch notifications etc. India shares these details with the UN.
- **Inter-Agency Space Debris Coordination Committee (IADC):** It is an international governmental forum for the worldwide coordination of activities related to the issues of man-made and natural debris in space.

India has supported the UN resolution on **No First Placement of Weapons in Outer Space.**

Source: TH

Asteroid 2020 ND

Why in News

Recently, the **National Aeronautics and Space Administration** (NASA) has issued a warning that a huge “**Asteroid 2020 ND**” will move past Earth on 24th July.

Key Points

- **Description:** The asteroid, about 170 metres-long, will be **as close as 0.034 Astronomical Unit (AU- Astronomical Unit is the distance between the Earth and the Sun and is roughly 150 million km) to the Earth**, and is travelling at a speed of 48,000 kilometres per hour.
- It is a **Near-Earth Objects** (NEO) and its distance from Earth has placed it in the **Potentially Hazardous Asteroids (PHA)** category.
- **Potentially Hazardous Asteroids:**
 - It means that an asteroid has the potential to make **threatening close approaches** to the Earth.
 - Specifically, all asteroids with a **Minimum Orbit Intersection Distance** (MOID) of 0.05 AU (which is about 7,480,000 Km) or less and an **Absolute Magnitude** (H) of 22.0 (about 150 mt in diameter) or less are considered PHAs.
 - MOID is a **method for calculating the minimum distance** between two almost overlapping elliptical orbits.
 - The **absolute magnitude** is a measure of the star's luminosity i.e. the total amount of energy radiated by the star every second.
- **Solutions**
 - **Deflecting Asteroids:** Blowing up the asteroid before it reaches Earth, or deflecting it off its Earth-bound course by hitting it with a spacecraft may ward off the threat.
 - **AIDA:** The measure undertaken so far is the **Asteroid Impact and Deflection Assessment (AIDA)**, which includes **NASA's Double Asteroid Redirection Test (DART) mission** and the **European Space Agency's (ESA) Hera**.
 - **DART:** In 2018, NASA announced that it had started the construction of DART, which is scheduled to launch in 2021 with an aim to slam into the smaller asteroid of the **Didymos system at around 6 km per second in 2022. Didymos**, is a binary near-Earth asteroid, that could pose the most likely significant threat to Earth.
 - **Hera:** It is scheduled to launch in 2024, and will arrive at the Didymos system in 2027 to measure the **impact crater produced by the DART collision** and study the **change in the asteroid's orbital trajectory**.
 - **Monitoring of PHAs:** It is not necessary that asteroids classified as PHAs will impact the Earth. It only **means there is a possibility of a threat**.
By **monitoring these PHAs** and updating their orbits as new observations, it is possible to predict the close-approach statistics and thus their Earth-impact threat.

Significance

- The scientific interest in **comets and asteroids** is largely due to their status as relatively unchanged remnant debris from the **solar system** formation process over 4.6 billion years ago. Therefore, they **offer clues about the chemical mixture** from the planets formed.

- Significantly, among all the reasons that will eventually cause the extinction of life on Earth, an asteroid hit is **widely acknowledged as one of the likeliest.**

Asteroids

- Asteroids orbit the Sun and are small bodies in the solar system.
- They are made up of metals and rocks.
- They tend to have shorter and elliptical orbits.
- They **do not produce a coma or tail atmosphere.**
- The asteroid belt is a torus-shaped region in the Solar System, located roughly between the orbits of the planets Jupiter and Mars.

Comet

- Comets also orbit the Sun and are relatively small bodies of the solar system.
- They are made up of **ice and hydrocarbons.**
- Comets have an eccentric orbit.
- When comets approach the sun, some part of their ice melts and the other materials vapourise due to the heat of the sun. This results in a glowing halo that extends outwards through space. Therefore, a **thin atmospheric tail is formed** when close to the Sun.

Source: IE

Regulation of Government Advertising: CCRGA

Why in News

Recently, the **Supreme Court**-mandated **Committee on Content Regulation in Government Advertising (CCRGA)** issued a notice to the Delhi government, seeking clarifications on a recent advertisement placed by it in Mumbai editions of prominent newspapers.

However, according to the Delhi government, CCRGA doesn't have jurisdiction over the Delhi government. The advertisement content of Delhi government is regulated by its own State-level committee.

Key Points

- **CCRGA:**
 - As per the directions of Supreme Court in 2015, the Government of India had set up a **three member body** in 2016 to look into content regulation of government funded advertisements in all media platforms.
 - It is **empowered to address complaints** from the general public and can also take suo-moto cognizance of any violation of the Supreme Court guidelines and recommend corrective actions.

- **Supreme Court Guidelines:**

- The content of government advertisements **should be relevant to the government’s constitutional and legal obligations** as well as the citizen’s rights and entitlements.
- The advertisement materials should be designed to meet the objectives of the campaign and to ensure maximum reach in a cost effective way.
- It should be accurate and not presenting pre existing policies and products as new. The advertisement content **should also not promote the political interests of the ruling party.**

Source: TH

Hurricane Hanna

Why in News

Recently, **Hurricane Hanna** has made **landfall** (the point at which a **hurricane** reaches land) in **Texas** with life-threatening storm surge and strong winds.

Tropical cyclones are called hurricanes in the West Indian islands in the Caribbean Sea and Atlantic Ocean.

Key Points

- It has **reached wind speeds of up to 90 mph** and is expected to produce heavy rains across portions of **southern Texas and northeastern Mexico**, which will result in flash flooding and isolated minor to moderate river flooding.
- It has been categorised as a **Category 1 storm on the Saffir–Simpson hurricane wind scale (SSHWS)**.
- This year, an **“above-normal” hurricane season is expected in the USA.**
One reason for this is the **warmer-than-average sea surface temperatures** in the tropical Atlantic Ocean and the Caribbean Sea, along with **weaker tropical Atlantic trade winds** and an **enhanced west African monsoon.**



Hurricane

- It is a **tropical cyclone** that occurs in the **Atlantic Ocean** and the **northeastern Pacific Ocean**.
- These are formed over the **warm ocean waters near the equator**.
- Hurricanes typically form between **5 to 15 degrees latitude north and south of the equator**.

Saffir-Simpson Hurricane Wind Scale

It is a **1 to 5 rating based** on a hurricane's sustained wind speed. This scale estimates potential property damage.

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	119-153 km/h	Very dangerous winds will produce some damage
2	154-177 km/h	Extremely dangerous winds will cause extensive damage
3 (major)	178-208 km/h	Devastating damage will occur
4 (major)	209-251 km/h	Catastrophic damage will occur
5 (major)	252 km/h or higher	Catastrophic damage will occur

Source: IE

Khelo India Youth Games 2021

Why in News

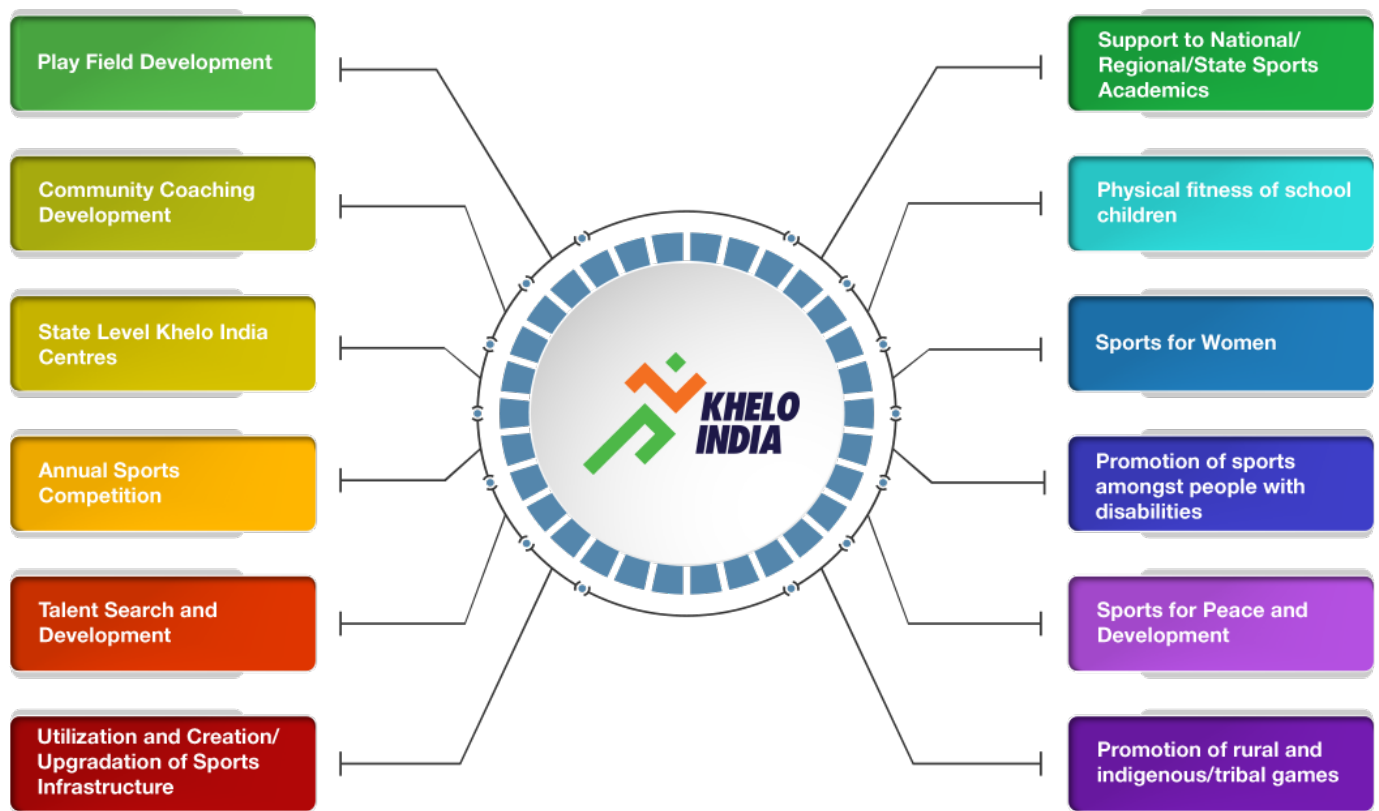
Recently, the government has announced that **Haryana will host the fourth edition of Khelo India Youth Games (KIYG)**.

Key Points

- The 2021 Khelo India Youth Games **are scheduled to take place after the 2021 Tokyo Olympics** and will be held in **Panchkula (Haryana)**.
- The 2021 Tokyo Olympics are set to open on **23rd July**.
In 2020, for the first time, the **Olympics were postponed following the Covid-19 outbreak**.
- **Usually, the KIYG takes place in January** of every year.

- KIYG is a **part of** the revamped national programme for development of sports '**Khelo India**' which was approved by the Union Cabinet in **2017**. The 2020 edition of KIYG was held in Guwahati (Assam).
 - The **Khelo India Scheme** aims to encourage sports all over the country, thus allowing the population to harness the power of sports through its cross-cutting influence, namely holistic development of children & youth, community development, social integration, gender equality, healthy lifestyle, national pride and economic opportunities related to sports development.
 - Under the Scheme, **talented players** identified in **priority sports disciplines** at various levels are provided **annual financial assistance of Rs. 5 lakh per annum for 8 years**.
 - Khelo India App, developed by the **Sports Authority of India (SAI)**, aims to create awareness about sports and fitness in the country.

SAI is under the **Ministry of Youth Affairs and Sports**.



Source: PIB

Nag River

Why in News

Recently, the Bombay High Court said that the Nag river has become extremely polluted due to industrialisation and urbanisation.

Key Points

- The **Nagpur city derives its name from the Nag river** which passes through the city.
- The Nag river **originates** from the **Ambazari Lake** in west Nagpur.
- Major Tributaries - **Pili river**.
- End point - confluence with **Kanhan River**.

Source: TH
