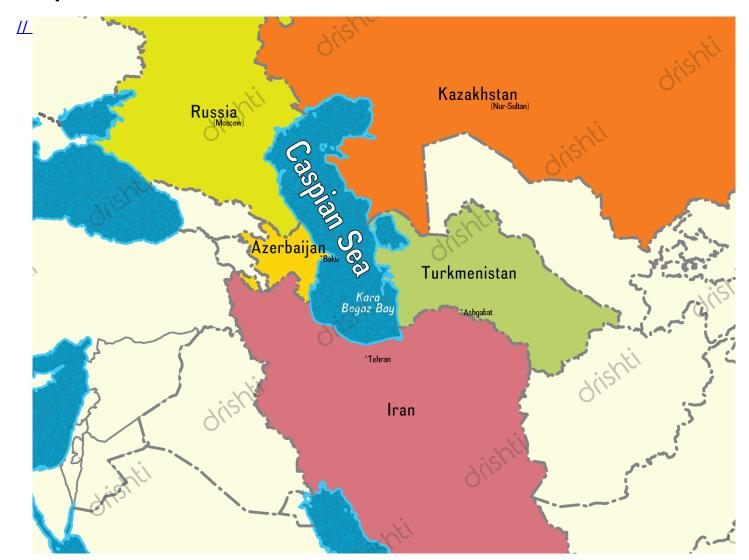


## **Caspian Sea**



## **Key Points**

- Physical Geography:
  - Earth's largest inland body of water, when measured by surface area.
  - **Bordered by** Russia (northwest), Azerbaijan (west), Iran (south), Turkmenistan (southeast) and Kazakhstan (northeast).
    - In 2003, the Caspian littoral states **signed the (Tehran) Framework Convention** for the Protection of the Marine Environment of the Caspian Sea.
  - Lies at the junction of Europe and Asia, with the **Caucasus Mountains** to the west and the **steppes of Central Asia** to the east.
- Recent Related Events:
  - Western Disturbances
  - International North South Transport Corridor (INSTC)

## Manipuri

# Manipuri (Manipur)



## **Background**

- ► Association: Rituals and traditional festivals.
- ▶ **Mythological Origin:** Celestial dance of Shiva and Parvati.
- ▶ **Origin of dance:** Natya Shastra, with influences and the culture fusion between various local folk dance forms.
- ► Gained prominence with the advent of **Vaishnavism in 15th** century.

## **Features**

- Performed by: Females.
- ► Unique emphasis on devotion.
- Incorporates both **Tandava and Lasya.**
- ▶ Naga Bandha mudra: Body is connected through curves in the shape of '8'.
- ► Ras Leela is a recurring theme of the Manipuri dance recital.

  Main characters:
  - ▶ Radha, Krishna and the Gopis.



## **Instruments**

- Pung
- Drum
- ► Flute

## **Famous Proponents**

- Nayana
- Suverna
- Ranjana
- ► Darshana
- Guru Bipin Singha

## Costume

- ► Embroidered stiff skirt.
- ► Short fine white muslin skirt.
- White veil over a special hair-do, falls gracefully over the face.
- Krishna: Yellow dhoti, a dark velvet jacket and a crown of peacock feathers.

## Conference of Interaction & Confidence Building Measures (CICA)

## Why in News?

Recently, the Minister of State for External Affairs addressed the 6<sup>th</sup> Summit of Conference on Interaction and Confidence Building Measures in Asia (CICA) in Astana, Kazakhstan.

 India is one of the founding members of Conference on Interaction and Confidence Building Measures in Asia (CICA).

## What is CICA?

- The CICA is an **intergovernmental forum aimed at strengthening regional cooperation** and ensuring peace, security, and stability in Asia.
- The idea of creating the organization was first voiced by Kazakhstan's First President Nursultan Nazarbayev in 1992 at the 47<sup>th</sup> session of the <u>United Nations General Assembly</u>, while the first CICA summit was held in June of 2002.
- The highest decision-making organ of CICA is the Meeting of the CICA Heads of State and Government (Summit). The CICA Summit is convened every four years in order to conduct consultations, review the progress of, and set priorities for CICA activities.
  - The Meeting of the Ministers of Foreign Affairs is required to be held every two years.
- CICA members include 27 Asian countries, including Azerbaijan, Bahrain, China, Egypt, India, Iran, Israel, Russia, South Korea, and Turkey, nine observer states, and five international organizations.
- India co-chairs two CICA CBMs (Confidence Building Measures) on 'Development of Secure and Effective Systems of Transportation Corridors,' and 'Energy Security'.
- The CICA Secretariat has been located in Almaty (Kazakhstan) since June 2006.

# **Conference** on Interaction and Confidence Building Measures in Asia (CICA)

- A multinational forum for enhancing cooperation towards promoting peace, security and stability in Asia
- Proposed by Nursultan Nazarbayev, Kazakhstan's first president, at the 47th Session of the United Nations General Assembly on October 5, 1992

## Member states (27):

- Afghanistan
- Egypt
- Kazakhstan
- Republic of Korea

- Azerbaijan
- India
- Kyrgyzstan
- Russian Federation

- Bahrain
- Iran
- Mongolia
- Sri Lanka

- Bangladesh
- Iraq
- Pakistan
- Tajikistan

- Cambodia
- Israel
- Palestine

Vietnam

Thailand

China

**United Arab Emirates** 

Jordan

Uzbekistan

- Qatar
- Turkey

## **Summits:**



**Source: TH** 

## Right to Information (RTI) Act

For Prelims: Right to Information (RTI) Act, Central Information Commission

For Mains: Right to Information (RTI) Act, Transparency & Accountability

## Why in News?

According to a report, the backlog of appeals or complaints under the **Right to Information (RTI)** Act is steadily increasing in Information Commissions every year.

## What are the Findings of the Report?

#### Pendency of Cases:

- At present, **nearly 3.15 lakh complaints or appeals pending** with 26 information commissions across India.
- The number of appeals and complaints pending in 2019 was 2,18,347 which increased to 3.14.323 in 2022.
- The highest number of pending cases were in Maharashtra followed by Uttar Pradesh, Karnataka, etc.

#### Defunct Information Commissions:

- Two out of 29 information commissions across the country are completely defunct, four of them headless at the moment, and only 5% of the positions are occupied by women.
  - Jharkhand and Tripura have been completely defuncted for 29 months and 15 months respectively. Manipur, Telangana, West Bengal and Andhra Pradesh are without chiefs.

## Not Imposing Penalties:

• The commissions did not impose penalties in 95% of the cases where penalties were potentially imposable.

## Tardy Disposal of Cases:

• The report also **flags concerns regarding tardy disposal rates** in several commissions and the lack of transparency in their functioning.

#### e-filing facility for RTI Applications:

• Only 11 information commissions out of 29 provide e-filing facility for RTI applications or appeals, but only five are functional.

## What is the Right to Information (RTI) Act?

#### About:

- The Right to Information Act 2005 mandates timely response to citizen requests for government information.
- The basic object of the Right to Information Act is to empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make our democracy work for the people in a real sense.

## Right to Information (Amendment) Act, 2019:

- It provided that the Chief Information Commissioner and an Information
   Commissioner (of Centre as well as States) shall hold office for such term as prescribed by the Central Government. Before this amendment, their term was fixed for 5 years.
- It provided that the salary, allowances and other service conditions of the Chief Information Commissioner and an Information Commissioner (of Centre as well as States) shall be such as prescribed by the Central Government.
  - Before this amendment, the salary, allowances and other service conditions of the Chief Information Commissioner were similar to those of the Chief Election Commissioner and that of an Information Commissioner were similar to those of an Election Commissioner (State Election Commissioners in case of States).
- It removed the provisions regarding deductions in salary of the Chief Information Commissioner, an Information Commissioner, the State Chief Information Commissioner and a State Information Commissioner due to pension or any other retirement benefits

- received by them for their previous government service.
- The <u>RTI (Amendment) Act, 2019 was criticized on grounds of diluting the law and giving more powers to the central government.</u>

## Issues in the Implementation:

- Non-compliance in proactive disclosure by public authorities
- Hostile approach of **Public Information Officers** (PIOs) towards citizens and misinterpreting provisions of the Right to Information (RTI) Act to conceal information.
- · Lack of clarity on what public interest is and right to privacy
- Lack of political will and poor infrastructure
- Rejection of information requests made by active citizens on important matters of public importance
- Covert means of attacks and threats against RTI activists and applicants to suppress their voices

## What is the Central Information Commission?

- **Established:** The Central Information Commission was established by the Central Government in 2005, under the provisions of the Right to Information Act (2005). It is **not a constitutional body.**
- **Members:** The Commission consists of a Chief Information Commissioner and not more than ten Information Commissioners.
- **Appointment**: They are appointed by the President on the recommendation of a committee consisting of the Prime Minister as Chairperson, the Leader of Opposition in the Lok Sabha and a Union Cabinet Minister nominated by the Prime Minister.
- **Tenure:** The Chief Information Commissioner and an Information Commissioner shall hold office for such term as prescribed by the Central Government or until they attain the age of 65 years, whichever is earlier.
  - They are not eligible for reappointment.

#### Power and Functions of CIC:

- It is the duty of the Commission to receive and inquire into a complaint from any person regarding information requested under RTI, 2005.
- The Commission can order an inquiry into any matter if there are reasonable grounds (suomoto power).
- While inquiring, the Commission has the powers of a civil court in respect of summoning, requiring documents etc.

## **Way Forward**

## Proper Functioning of Information Commissions:

- Proper functioning of information commissions is crucial for people to realise their right to information.
- Under the RTI law, **information commissions are the final appellate authority** and are mandated to safeguard and facilitate people's fundamental right to information.

#### Transparency:

• There is an **urgent need for the transparency watchdogs** to function in a more effective and transparent manner.

#### Digitisation of the System:

- The digital RTI portal (website or mobile app) can deliver more efficient and citizenfriendly services which are not possible through conventional mode.
- This will be beneficial for both transparency seekers and the government.

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

**Q.** The Right to Information Act is not all about citizens' empowerment alone, it essentially redefines the concept of accountability." Discuss. **(2018)** 

**Source: TH** 

## The Places of Worship Act

For Prelims: The Places of Worship (Special Provisions) Act, 1991

For Mains: Indian Constitution, The Places of Worship (Special Provisions) Act, 1991, Related Provisions

## Why in news?

Solicitor General told the Supreme Court that the validity of the Places of Worship Act, 1991, "may not be covered" by the opinion of its five-judge Constitution bench in the Ayodhya case.

## What is the Places of Worship Act?

About: It is described as "An Act to prohibit conversion of any place of worship and to provide for the maintenance of the religious character of any place of worship as it existed on the 15th day of August 1947, and for matters connected therewith or incidental thereto."

## • Exemption:

- The disputed site at Ayodhya was exempted from the Act. Due to this exemption, the trial in the Ayodhya case proceeded even after the enforcement of this law.
- Besides the Ayodhya dispute, the Act also exempted:
  - Any place of worship which is an ancient and historical monument, or an archaeological site covered by the <u>Ancient Monuments and Archaeological</u> <u>Sites and Remains Act</u>, 1958.
  - A suit that has been finally settled or disposed of.
  - Any dispute that has been settled by the parties or conversion of any place that took place by acquiescence before the Act commenced.

## Penalty:

• Section 6 of the Act prescribes a punishment of a maximum of three years imprisonment along with a fine for contravening the provisions of the Act.

## Criticism:

- The law has been challenged on the ground that it bars judicial review, which is a basic feature of the Constitution, imposes an "arbitrary irrational retrospective cutoff date," and abridges the right to religion of Hindus, Jains, Buddhists, and Sikhs.
- Violates the Principle of Secularism: It bars the power of remedy of judicial review which is a basic feature of the Constitution and is therefore outside the legislative competence of Parliament.
  - The result is that Hindu devotees cannot raise their grievance by instituting any suit
    in Civil Court or invoking the jurisdiction of the Hon'ble High Court under Article 226
    of the Constitution of India against high handiness of ultras and will not be able to
    restore back the religious character of Hindu Endowments, Temples, Mutts etc from
    hoodlums if they had encroached upon such property before 15th August 1947 and
    such illegal and barbarian act will continue in perpetuity,
  - The Act had kept out the land which was the subject matter of the Ayodhya dispute from its purview.

## What are the Provisions of the Places of Worship Act?

- **Section 3:** This bars the conversion, in full or part, of a place of worship of any religious denomination into a place of worship of a different religious denomination or even a different segment of the same religious denomination.
- Section 4(1): It declares that the religious character of a place of worship "shall continue to be the same as it existed" on 15<sup>th</sup> August 1947.
- **Section 4(2):** It says any suit or legal proceeding with respect to the conversion of the religious character of any place of worship existing on 15th August, 1947, pending before any court, shall abate and no fresh suit or legal proceedings shall be instituted.
  - The proviso to this subsection saves suits, appeals, and legal proceedings that are pending on the date of commencement of the Act if they pertain to the conversion of the religious character of a place of worship after the cut-off date.
- **Section 5:** It stipulates that the Act shall not apply to the Ramjanmabhoomi-Babri Masjid case, and to any suit, appeal, or proceeding relating to it.

## What was the Supreme Court's view during Ayodhya Judgement?

- In the 2019 Ayodhya verdict, the Constitution Bench referred to the law and said it manifests the secular values of the Constitution and prohibits retrogression.
- The law is hence a legislative instrument designed to protect the secular features of the Indian polity, which is one of the basic features of the Constitution.

## **Way Forward**

Despite of the shortcomings associated with the Act we cannot ignore the importance of Places of Worship Act. This is a great legislative intervention which preserves non-retrogression as an essential feature of our secular values.

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

## **Prelims**

#### Q. Consider the following statements: (2020)

- 1. The Constitution of India defines its 'basic structure' in terms of federalism, secularism, fundamental rights and democracy.
- 2. The Constitution of India provides for 'judicial review' to safeguard the citizens' liberties and to preserve the ideals on which the Constitution is based.

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

- (a) 1 only
- **(b)** 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

## Ans: (d)

#### <u>Mains</u>

- Q. What are the challenges to our cultural practices in the name of Secularism? (2019)
- **Q.** How the Indian concept of secularism is different from the western model of secularism? Discuss. **(2018)**

## **Living Planet Report 2022**

**For Prelims**: Living Planet Report 2022, WWF, Living Planet Index (LPI), Mangroves, Sunderbans, Migration, Climate Change, Biodiversity.

For Mains: Biodiversity Loss, Related Threats.

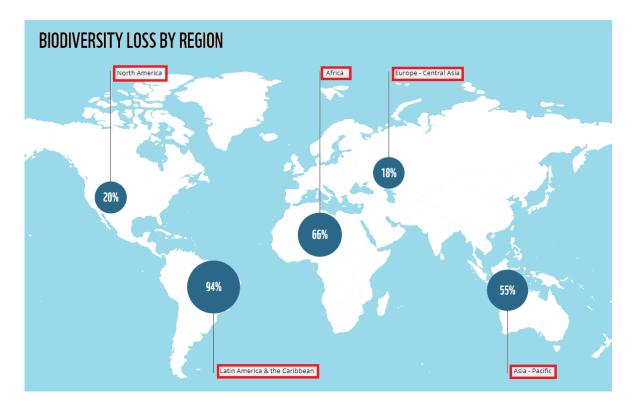
## Why in News?

There has been a **69% decline in the wildlife populations of mammals, birds, amphibians, reptiles and fish,** across the globe in the last 50 years, according to the <u>Living Planet Report</u> **2022** by <u>World Wide Fund for Nature (WWF).</u>

This report is released every two years.

## What are the Key Findings of the Report?

- Region-wise Decline in Wildlife Populations:
  - The highest decline in the wildlife populations (94%) was in the Latin America and the Caribbean region.
  - Africa recorded a **66% fall** in its wildlife populations from 1970-2018 whereas the **Asia-Pacific** recorded a **decline of 55%.**



- Decline in Freshwater Species:
  - Freshwater Species populations globally reduced by 83%.
    - **Habitat loss and barriers to** migration **routes were responsible** for about half of the threats to monitored migratory fish species.
- Collapsing Vertebrate Wildlife Populations:
  - Living Planet Index (LPI) showed that vertebrate wildlife populations are collapsing at a particularly staggering rate in tropical regions of the world.
    - Featuring about 32,000 populations of 5,230 species across the world, LPI is
      a measure of the state of the world's biological diversity based on population
      trends of vertebrate species from terrestrial, freshwater and marine
      habitats.
- Mangrove Degradation:
  - Mangroves continue to be lost to aquaculture, agriculture and coastal development at a rate of 0.13% per year.
    - Many mangroves are also degraded by overexploitation and pollution, alongside natural stressors such as storms and coastal erosion.
  - Around 137 square kilometres of the <u>Sundarbans</u> mangrove forest in India and Bangladesh has been eroded since 1985, reducing land and ecosystem services for many of the 10 million people who live there.
- Key Threats to Biodiversity:
  - WWF identified six key threats to biodiversity to highlight 'threat hotspots' for terrestrial vertebrates:
    - Agriculture
    - Hunting
    - Logging
    - Pollution
    - Invasive Species
    - Climate Change

## What is World Wildlife Fund for Nature?

- It is the world's **leading conservation organization** and works in more than 100 countries.
- It was established in 1961 and is headquartered at Gland, Switzerland.
- Its mission is to conserve nature and reduce the most pressing threats to the diversity of life on
- WWF collaborates at every level with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places in which they live.

## What are the Recommendations of the Report?

- The planet is experiencing double emergencies of human-induced climate change and biodiversity loss, threatening the well-being of current and future generations. Biodiversity loss and climate crisis should be dealt with as one instead of two different issues as they are intertwined.
- A nature-positive future needs transformative, game-changing shifts in how we produce, how we consume, how we govern and what we finance.
- An all-inclusive collective approach towards a more sustainable path must be adopted. It
  will ensure that the costs and benefits from our actions are socially just and equitably shared.

**Source: DTE** 

## Karnataka Hijab Ban Case

For Prelims: Supreme Court, Hijab, Fundamental Rights, Cases Related to Freedom of Religion

**For mains:** Fundamental Rights, Judiciary, Government Policies & Interventions, Women's Issues, Cases Related to Freedom of Religion

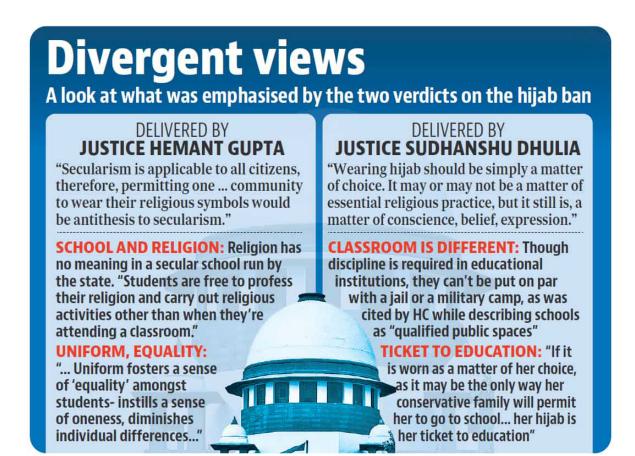
## Why in News?

Recently, the **Supreme Court** has delivered a split verdict in the Karnataka Hijab ban case.

- In case of a split verdict, the case is heard by a larger Bench.
- The larger Bench to which a split verdict goes can be a three-judge Bench of the High Court, or an appeal can be preferred before the Supreme Court.
- In March, 2022, the high court had **dismissed the petitions filed by a section of Muslim students** in Karnataka seeking permission to wear the hijab inside classrooms, ruling it is **not a part of the essential religious practice in Islamic faith.**



## What are the Highlights of the Verdict?



## How have courts ruled so far on the issue of a hijab?

- In 2015, at least two petitions were filed before the Kerala High Court challenging the prescription of dress code for All India Pre-Medical Entrance which prescribed wearing "light clothes with half sleeves not having big buttons, brooch/badge, flower, etc. with Salwar/Trouser" and "slippers and not shoes".
  - Admitting the argument of the Central Board of School Education (CBSE) that the rule
    was only to ensure that candidates would not use unfair methods by concealing objects
    within clothes, the Kerala HC directed the CBSE to put in place additional measures
    for checking students who "intend to wear a dress according to their religious custom,
    but contrary to the dress code".
- In Amna Bint Basheer v CBSE (2016), the Kerala HC examined the issue more closely. The Court held that the practice of wearing a hijab constitutes an essential religious practice but did not quash the CBSE rule.
  - The court once again allowed for the "additional measures" and safeguards put in place in 2015.
- However, on the issue of a uniform prescribed by a school, another Bench ruled differently in *Fathima Tasneem v State of Kerala (2018)*.
  - A single Bench of the Kerala HC held that **collective rights of an institution would be given primacy** over individual rights of the petitioner.

## How is Religious Freedom Protected under the Constitution?

- Article 25 to 28 of Part-3 (Fundamental Rights) of the Constitution confers Right to freedom of religion.
- Article 25(1) of the Constitution guarantees the "freedom of conscience and the right freely to profess, practise and propagate religion".
- It is a **right that guarantees a negative liberty** which means that the state shall ensure that there is no interference or obstacle to exercise this freedom.
  - However, like all <u>fundamental rights</u>, the state can restrict the right for grounds of public order, decency, morality, health and other state interests.

- **Article 26** talks about the freedom to manage religious affairs subject to public order, morality and health.
- **Article 27** states that no person shall be compelled to pay any taxes for the promotion or maintenance of any particular religion.
- Article 28 states that the freedom to attend religious instruction or religious worship in certain
  educational institutions.

## **Way Forward**

- In the prevailing political climate, the Karnataka government mandating either a prescribed uniform or any dress that was "in the interest of unity, equality and public order" was seen as a majoritarian assertion in the garb of enforcing secular norms, equality and discipline in educational institutions.
- A verdict that **legitimises this non-inclusive approach to education and a policy** that may lead to denial of opportunity to Muslim women will not be in the country's interest.
- **Reasonable accommodation should be the course** as long as the hijab or any wear, religious or otherwise, does not detract from the uniform.

**Source: TH** 

## **LEADS Report 2022**

**For Prelims:** Logistics Ease Across Different States (LEADS)" survey, Multimodal Transportation of Goods Act, 1993, PM Gati Shakti Scheme, Multi Modal Logistics Parks, LEADS Report, Dedicated Freight Corridor, Sagarmala Projects, Bharatmala Project.

For Mains: Integrated and Multi-modal Transportation, Logistic Cost.

## Why in News?

Recently, the Ministry of Commerce and Industry has released the **Logistics Ease Across Different States (LEADS) Report 2022.** 

- The LEADS is an indigenous data-driven index to assess logistics infrastructure, services, and human resources across all 36 States and UTs.
- LEADS continues to act as a guiding & bridging mechanism for the identification of interventions enhancing logistics efficiency at State/UTs. It reflects positively on international indices, like Logistics Performance Index.
- The first logistics report was released in 2018.

## What are the Key Findings?

- Unlike the previous versions of LEADS which were based on ranking systems for all states, LEADS
   2022 has adopted a classification-based grading, states have been now classified under four categories viz coastal states, hinterland/landlocked states, north-eastern states, and Union Territories.
  - For the assessment of how well a State or UT has performed in comparison to the Top State/UT within the specific cluster.
- Three performance categories namely:

- Achievers: States/UTs achieving 90% or more percentage.
  - Andhra Pradesh, Assam, Chandigarh, Delhi, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Odisha, Punjab, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand and Gujarat are in the achievers Category.
    - Maharashtra tops amongst the "Achievers" states.
- Fast Movers: States/UTs achieving percentage scores between 80-90%.
  - Kerala, Madhya Pradesh, Rajasthan, Puducherry, Sikkim and Tripura.
- **Aspirers:** States/UTs achieving percentage scores **below 80%** have been made.
- The LEADS 2022 survey report would assist PM Gati-Shakti National Master Plan (PMGS-NMP) and National Logistics Policy (NLP) to mapping of logistics infrastructure, services, and regulatory environment enabling State Governments to identify and fill the gaps and achieve data-driven multimodal connectivity.
  - **PMGS-NMP** has potential to save over Rs. 10 Lakh Crore annually by improving logistics efficiency and will bringing down the logistic cost to single digits in the coming years.
  - NMP to help remotest areas undertake integrated infrastructure planning and close development gaps. Through PM Gati-Shakti 197 critical infrastructure gap projects identified.

## What is Logistics Performance Index?

- The Logistics Performance Index (LPI), developed by the World Bank Group, is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance.
- LPI is the weighted average of the country's scores on the six key dimensions:
  - Efficiency of the clearance process (i.e., speed, simplicity and predictability of formalities)
     by border control agencies, including customs.
  - Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology).
  - Ease of arranging competitively priced shipments.
  - Competence and quality of logistics services (e.g., transport operators, customs brokers).
  - Ability to track and trace consignments.
  - Timeliness of shipments in reaching destinations within the scheduled or expected delivery time.
  - India ranked 44<sup>th</sup> on the LPI in 2018. As of 2022 no new data has been published.

## What are the Initiatives Related to Logistics?

- Multimodal Transportation of Goods Act, 1993.
- PM Gati Shakti Scheme
- Multi Modal Logistics Parks
- LEADS Report
- Dedicated Freight Corridor
- Sagarmala Projects
- Bharatmala Project

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

**Q.** The Gati-Shakti Yojana needs meticulous coordination between the government and the private sector to achieve the goal of connectivity. Discuss. **(2022)** 

**Source: TH** 

## **India's Space Ecosystem**

**For Prelims:** Indian Space Research Organisation (ISRO), National Space Transportation Policy (NSTP), IN-SPACE, NewSpace India Limited (NSIL), Indian Space Association (ISpA)

For Mains: Need of Space Revolution and related steps taken

## Why in News?

Recently, Indian Space Conclave was organized to celebrate the one-year anniversary of the Indian Space Association (ISpA).

■ The Indian space economy is set to reach USD 13 billion by 2025, according to a **joint report** prepared by EY (Ernst and Young) and the Indian Space Association (ISpA).

## What are the Findings of the Report?

- The space-launch segment would grow at a CAGR (Compound Annual Growth Rate) of 13%, spurred by growing private participation, latest technology adoption and low cost of launch services.
- The satellite services and application segment will form the largest share of the space economy accounting for 36% of the Space ecosystem by 2025.
- The country's **satellite-manufacturing opportunity** will reach USD 3.2 billion by the year 2025. In 2020 it was USD 2.1 billion.
  - Satellite manufacturing would be the second fastest-growing segment in the Indian space economy.

## What is ISpA?

## About ISpA:

- It was launched in 2021, and is the premier industry association of space and satellite companies. It is also part of the Government's approach to **space reforms** based **on 4 pillars.**
  - Allowing the private sector freedom of innovation.
  - Government playing the enabler's role.
  - Preparing youngsters for the future.
  - Treating the space sector as a resource for the progress of the common man.
- ISpA aspires to be the collective voice of the Indian Space industry. ISpA will be represented by leading domestic and global corporations that have advanced capabilities in space and satellite technologies.

#### Objectives:

- ISpA will undertake Policy Advocacy and engage with all stakeholders in the Indian Space domain, including the Government and its Agencies, to make <u>India self-reliant</u>, technologically advanced and a leading player in the space arena.
- It will work towards **building global linkages for the Indian space industry** to bring in critical technology and investments into the country to create more high skill jobs.

## Significance:

- One of the main goals of the organization is to supplement the government's efforts towards **making India a global leader** in commercial space-based excursions.
- Of late, ISRO's rockets have been carrying the payload and communication satellites of

various countries; now, private players will also look to touch on this space with the new organisation.

 Several private sector companies have shown an interest in India's space domain, with\_space-based communication networks coming to the fore.

## What is the Need for Reforms of the Space Sector?

#### To increase the Scale of the Sector:

- Indian Space Research Organisation (ISRO) is centrally funded and its annual budget is between Rs 14-15,000 crore, and most of this is used in building rockets and satellites.
- The size of the space economy in India is small. To increase the scale of the sector, it is imperative for private players to enter the market.
- ISRO is planning to share knowledge and technology, such as manufacturing rockets and satellites, to all the private players.
  - The United States, Europe, Russia all have space industries with big players like Boeing, SpaceX, AirBus, Virgin Galactic, etc.

## Reforms in Private Players:

- There have always been private players in the sector, but this has been entirely in manufacture of parts and sub-systems. There is a need to provide a fillip to industry to be able to manufacture rockets and satellites.
- Private players can bring in the innovation needed for developing space-based applications and services.
- Additionally, the **demand for these services is soaring worldwide and in India, with satellite data, imageries** and space technology being used across most sectors.

## What are the Related Initiatives taken?

#### IN-SPACE:

- IN-SPACE was launched to provide a level playing field for private companies to use Indian space infrastructure.
- It acts as a single-point interface between Indian Space Research Organisation (ISRO), and everyone who wants to participate in space-related activities or use India's space resources.

#### NewSpace India Limited (NSIL):

• Announced in Budget 2019, its aim is to use research and development carried out by ISRO over the years for commercial purposes through Indian industry partners.

## **Way Forward**

- There is a need for a new policy that ends ISRO's monopoly of the space sector in India, by sharing knowledge and technology, such as manufacturing rockets and satellites, to all those who want to.
- With India having one of the best space programs in the world, the move to allow FDI in space will make India a bigger player in the global space economy.
- Foreign direct investment (FDI) in space will allow foreign players with a window to venture into the India space domain, this will contribute to Indian national and foreign reserves, promote technology transfer and research innovations.
- Further, the introduction of the Indian Space Activities Bill can give greater clarity to private players on how to be an integral part of the space sector.

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

## <u>Prelims</u>

Q. Consider the following statements: (2016)

## The Mangalyaan launched by ISRO

- 1. is also called the Mars Orbiter Mission
- 2. made India the second country to have a spacecraft orbit the Mars after USA
- 3. made India the only country to be successful in making its spacecraft orbit the Mars in its very first attempt

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

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

Ans: (c)

## Mains

- Q. What is India's plan to have its own space station and how will it benefit our space programme? (2019)
- **Q.** Discuss India's achievements in the field of Space Science and Technology. How the application of this technology has helped India in its socio-economic development? **(2016)**

**Source: TH** 

## **ISRO's Next-Gen Launch Vehicle**

## Why in News?

<u>Indian Space Research Organisation (ISRO)</u> is developing a **Next-Gen Launch Vehicle (NGLV)** to replace operational systems like the <u>Polar Satellite Launch Vehicle (PSLV)</u>.

 Launch Vehicles are used to carry spacecraft to space. India has two operational launchers, PSLV and Geosynchronous Satellite Launch Vehicle (GSLV).

#### What is NextGen Launch Vehicle?

- About:
  - In NGLV, ISRO is looking at a cost-efficient, three-stage to orbit, reusable heavy-lift vehicle with a payload capability of ten tonnes to **Geostationary Transfer Orbit (GTO).**
  - Its robust design allows bulk manufacturing, modularity in systems, sub-systems and stages and minimal turnaround time.
- **Features**: It will feature **semi-cryogenic propulsion** (refined kerosene as fuel with liquid oxygen (LOX) as oxidiser) for the booster stages.
- Use: Potential uses will be in launching communication satellites, deep space missions, future human spaceflight and cargo missions.

## What are other Launch Vehicles Developed by ISRO?

Satellite Launch Vehicle (SLV): The first rocket developed by ISRO was simply called SLV, or

Satellite Launch Vehicle.

- It was followed by the Augmented Satellite Launch Vehicle or ASLV.
- Augmented Satellite Launch Vehicle (ASLV): SLV and ASLV both could carry small satellites, weighing up to 150 kg, to lower earth orbits.
  - ASLV operated till the early 1990s before PSLV came on the scene.
- Polar Satellite Launch Vehicle (PSLV): PSLV's first launch was in 1994, and it has been ISRO's main rocket ever since. Today's PSLV, however, is vastly improved and several times more powerful than the ones used in the 1990s.
  - It is the first Indian launch vehicle to be equipped with liquid stages.
  - PSLV is the most reliable rocket used by ISRO to date, with 52 of its 54 flights being successful.
  - It successfully launched two spacecraft <u>Chandrayaan-1</u> in 2008 and <u>Mars Orbiter</u>
     <u>Spacecraft</u> in 2013 that later travelled to Moon and Mars respectively.
- Geosynchronous Satellite Launch Vehicle (GSLV): GSLV is a much more powerful rocket, meant to carry heavier satellites much deeper into space. To date, GSLV rockets have carried out 18 missions, of which four ended in failure.
  - It can take 10,000 kg of satellites to lower the earth's orbits.
  - The indigenously developed Cryogenic Upper Stage (CUS), forms the third stage of GSLV Mk II.
  - Mk-III versions have made ISRO entirely self-sufficient in launching its satellites.
    - Before this, it used to depend on the European Arianne launch vehicle to take its heavier satellites into space.



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

## **Prelims**

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

1. PSLVs launch the satellites useful for Earth resources monitoring whereas GSLVs are designed

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

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

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

Ans: (a)

## Exp:

- PSLV is the third generation launch vehicle of India. It is the first Indian launch vehicle to be equipped with liquid stages. It is used mainly for delivering various satellites in Low Earth Orbits, particularly the Indian Remote Sensing series of satellites. It can take up to 1,750 kg of payload to Sun-Synchronous Polar Orbits of 600 km altitude.
- GSLV is designed mainly to deliver Indian National Satellite System, or INSAT, which is a series of
  multipurpose geo-stationary satellites launched by ISRO to fulfil the needs of telecommunications,
  broadcasting, meteorology, and search and rescue operations. It places satellites to the highly
  elliptical Geosynchronous Transfer Orbit (GTO). Hence, statement 1 is correct.
- The satellites in the geosynchronous orbits appear to remain permanently fixed in the same position in the sky. Hence, statement 2 is not correct.

**Source: TH** 

## **International Migration Outlook 2022**

## Why in News?

Recently, **International Migration Outlook 2022**, a report on international migration patterns was released by the **Organisation for Economic Co-operation and Development (OECD)**.

## What are the Highlights of the Report?

- Global Scenario:
  - After a record decrease in 2020 due to the COVID-19 crisis, permanent-type migration to OECD countries bounced back by 22% in 2021.
  - Family migration increased by 40% in 2021 and remained the largest category of inflows, accounting for more than four in ten new permanent immigrants to the OECD.
  - Migration in free mobility areas was less affected by the pandemic, but still fell by 17% in 2020.
  - In 2020, there were 4.4 million international students enrolled in the OECD, accounting for 10% of all tertiary students. The most important receiving countries are the United States (22%), the United Kingdom (13%) and Australia (10%).
  - The United States remained the largest recipient of permanent immigrants in

**2021** (834 000), 43% more than in 2020, and 19% less than in 2019. In the EU, the upturn in permanent-type migration (+15%) was less pronounced.

#### Indian Scenario:

- Students from China (22%) and India (10%) account for the largest share of foreign students in OECD countries. About a third of the world's population aged 20-29 live in these two countries.
- A look at the stay rates of Indians and Chinese students who had obtained their education permit in 2015 shows that in nearly every OECD country, including Canada, Germany, Australia, New Zealand, the United Kingdom, and Japan, Indians have significantly higher retention rates than the Chinese.
- Indian students tend to have a higher stay rate than the overall international student population.

## What is OECD?

• **About:** The OECD is an **intergovernmental economic organisation,** founded to stimulate economic progress and world trade.

Most OECD members are high-income economies with a very high Human Development Index (HDI) and are regarded as developed countries.

- Founded: 1961.
- **Headquarters:** Paris, France.
- Total Members: 38.
- The most recent countries to join the OECD were Colombia, in April 2020, and Costa Rica, in May 2021.
- India is not a member, but a key economic partner.
- Reports and Indices by OECD
  - Government at a Glance
  - OECD Better Life Index.

## What are the Different Types of Migration?

- On the Basis of Movement Pattern
  - **Step Migration:** Migration initiating from a small settlement and moving to a larger one in the urban hierarchy over the years. Such as movement from a farm to a village, then to a town and subsequently to a suburb (if applicable) and finally into a city.
  - **Circular Migration**: Cyclical migration experiences between an origin and a destination with at least one migration and return.
    - **Seasonal Migration** is a very common form of circular migration, driven by seasonal peaks in labor demand, mostly in agriculture.
    - **Return Migration** refers to a one-time emigration and returns after an extended stay outside the host territory.
    - **Chain Migration:** Migration of families at different stages of the life cycle from one location to the next, who subsequently bring people from their home location to this new place.
- On the Basis Decision-making Approach:
  - **Voluntary Migration:** Based on a person's free will, initiative, and desire to live in a better place and to improve their financial status, among other factors.
  - **Involuntary Migration**: Based on a person's being forced out of their home due to certain unfavorable environmental and political situations.
- On the Basis of Duration:
  - Permanent Migration: When people migrate to another place over a long distance for living there for a long period, it is called a permanent migration. For example, a person has moved from Satna (Madhya Pradesh) to Gurugram (Haryana) for better job opportunities and he planned to settle there. This type of migration will be considered permanent migration.
  - **Temporary Migration:** It is migration to a country that is not intended to be permanent, for a specified and limited period of time, and usually undertaken for a specific purpose.

## Source: IE

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