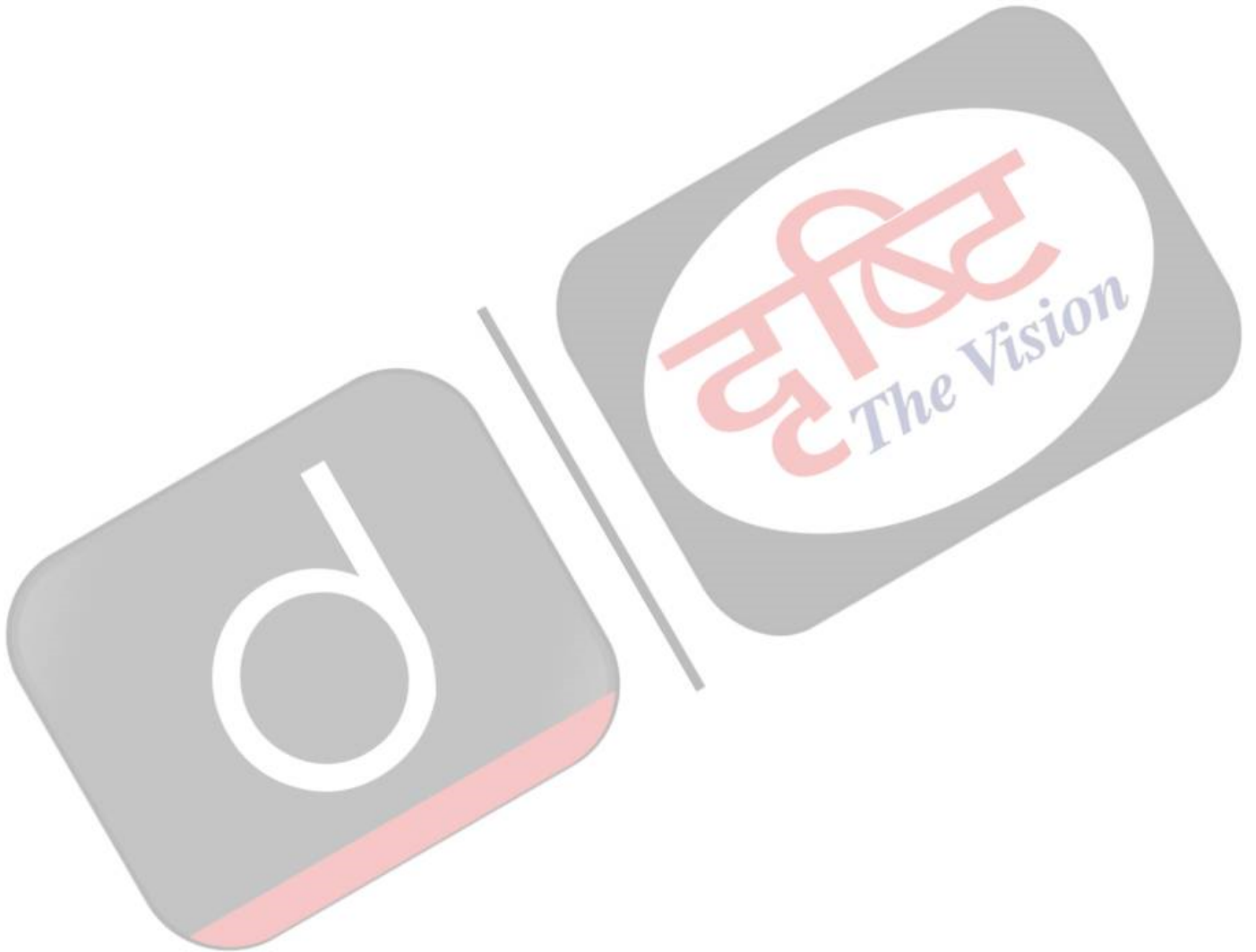




## UN Specialised Agencies: FAO, UNIDO and ICAO (Part-1)

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# UN SPECIALISED AGENCIES

UNSA's are 15 autonomous international organizations working with the UN

Part I  
FAO, UNIDO  
and ICAO

## FAO

- Estd. - 16th October 1945 (World Food Day)
- Headquarters - Rome, Italy
- Members - 194 countries (incl. India) + EU
- Sister Bodies - World Food Programme (WFP), IFAD
- FAO v/s WFP v/s IFAD:
  - » FAO is a knowledge org.; lead UN agency for technical expertise in food security, agriculture, forestry, fisheries etc.
  - » WFP is a humanitarian org.; provides food aid and logistical operations to save lives in crisis situations
  - » IFAD is a financial institution; funds rural development projects to improve nutritional level
- Flagship Publications:
  - » The State of World Fisheries and Aquaculture (SOFIA)
  - » The State of the World's Forests (SOFO)
  - » The State of Food Security and Nutrition in the World (SOFI)
  - » The State of Food and Agriculture (SOFA)
  - » The State of Agricultural Commodity Markets (SOCO)
- FAO's Globally Important Agricultural Heritage Systems (GIAHS) in India:
  - » Kuttanad Below Sea Level Farming System, Kerala
  - » Koraput Traditional Agriculture, Odisha
  - » Pampore Saffron Heritage, Kashmir

## UN Industrial Development Organisation

- Estd. - 1966 (transformed into UNSA in 1985)
- Headquarters - Vienna, Austria
- Member States - 171 (India one of the founders)
- Functions - Tech-cooperation, advisory services and fostering partnerships
- Imp. Declarations - Lima Declaration (2013), Abu Dhabi Declaration (2019)

UNIDO  
is a custodian  
agency for 6  
industry-related  
indicators  
under SDG 9

## ICAO

- Estd. - 1944 (by Chicago Convention)
- Function - Set standards/procedures for peaceful global air navigation
- Headquarters - Montreal, Canada
- Members - 193 (incl. India)

ICAO is not an international aviation regulator; it can't arbitrarily close/restrict a country's airspace, shut down routes or condemn airports/airlines



**Drishti IAS**

[UN Specialised Agencies - UNWTO, IFAD and UPU \(Part-2\)](#)

[UN Specialised Agencies: ILO, WHO and ITU \(Part-3\)](#)

[UN Specialised Agencies: WIPO, WMO and IMO \(Part-4\)](#)

[UN Specialised Agencies: IMF, World Bank and UNESCO \(Part -5\)](#)

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## Doha Political Declaration on LDCs

**Prelims:** Doha Political Declaration, Least Developed Countries, United Nations, SDGs, Climate Change, Covid-19.

**Mains:** Doha Political Declaration on LDCs.

### Why in News?

The 5<sup>th</sup> [United Nations](#) Conference on the **Least Developed Countries (LDC5)** concluded with adoption of the '**Doha Political Declaration**' by the world leaders.

- The declaration is a key outcome of the **second part of LDC5 conference** held under the **theme "From Potential to Prosperity"** in Qatar.

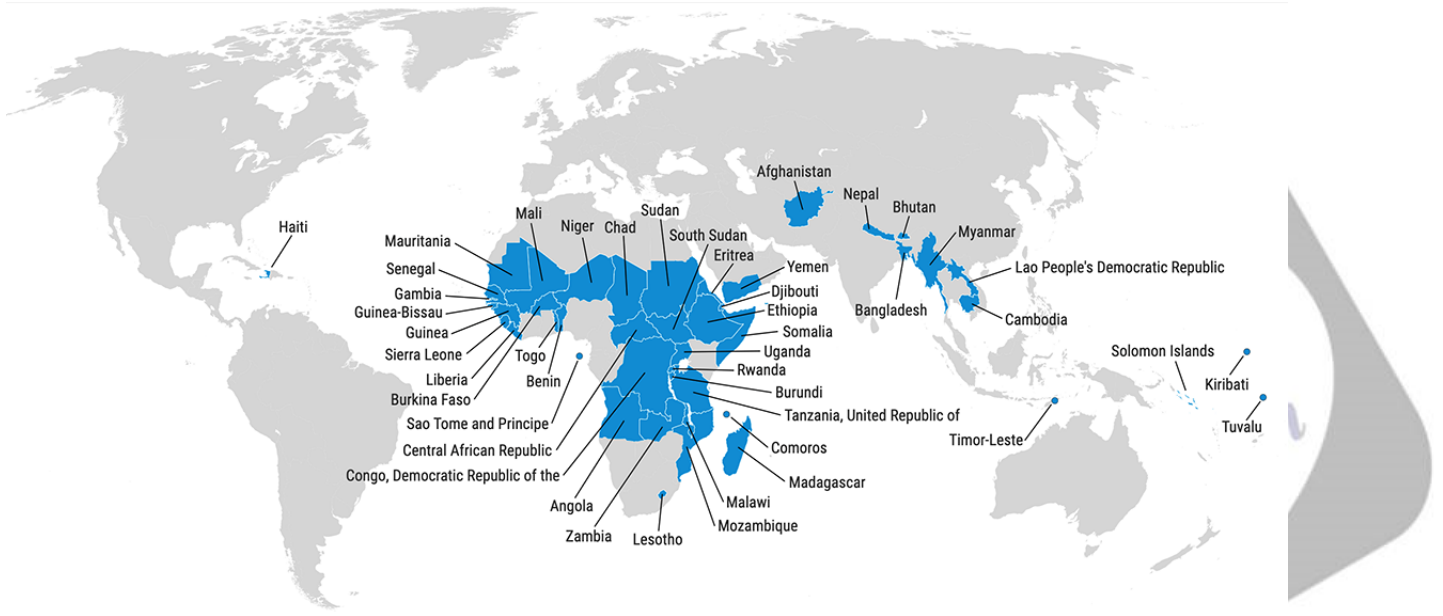
### What are the Key Highlights of the Declaration?

- **Doha Programme of Action:**
  - It focuses on implementing the **Doha Programme of Action (DPoA)**, the 10-year plan to put the **world's 46 most vulnerable countries back on track** to achieving the [Sustainable Development Goals \(SDG\)](#).
    - DPoA for the Decade (2022-2031) was agreed upon during the first part of the LDC5 conference in March 2022 in New York, the US.
  - DPoA (2022-2031) consisted of **Six Key Focus Areas**,
    - Eradicating [Poverty](#)
    - Leveraging the potential of science and technology to fight against multidimensional vulnerabilities and to achieve the SDGs
    - Addressing [Climate Change](#)
    - Environmental Degradation
    - Recovering from [Covid-19](#) and building resilience against future shocks for risk-informed sustainable development.
- **Need for the Declaration:**
  - The 46 LDCs are being hit the hardest by multiple crises including the **Covid-19 Pandemic, Climate Crisis**, growing Inequalities, rising Debt Burdens and economic shocks.
  - They have contributed **minimally to [Carbon Dioxide Emissions](#)**, but disproportionately **bear the burden of climate change impacts**.
  - These countries, which include 33 African nations, face the challenge of high **debt costs while having inadequate liquidity** to provide essential services.
  - The LDCs are the **worst performers on the progress made towards achieving SDGs**, according to the [Sustainable Development Report 2022](#).

### What are LDCs?

- LDCs are a group of countries identified by the United Nations as having the **lowest indicators of socioeconomic development**. These countries are characterized by high levels of poverty, low levels of human capital, and limited access to basic services, such as healthcare and education.
- Currently, **there are 46 countries** on the United Nations' list of LDCs.

- Africa (33);
  - Asia (9);
  - Caribbean (1): Haiti;
  - Pacific (3): Kiribati, Solomon Islands and Tuvalu.
- The list of LDCs is reviewed **every three years by the Committee for Development Policy (CDP)**, a group of independent experts that report to the [Economic and Social Council \(ECOSOC\)](#) of the United Nations.
  - Following a triennial review of the list, the CDP may recommend, in its report to ECOSOC, countries for addition to the list or graduation from LDC status.



Source: DTE

## India-US Pact on Semiconductor

**Prelims:** Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors, Major Manufacturers of Semiconductor-chips.

**Mains:** India-US Pact on Semiconductor.

### Why in News?

Recently, India and the US have signed Memorandum of Understanding (MoU) on establishing the **Semiconductor** Supply chain during [India - USA 5<sup>th</sup> Commercial Dialogue 2023](#), which can help **India** realize its long-nurtured dream of becoming a hub for electronic goods.

- The MoU seeks to establish a collaborative mechanism between the two governments **on semiconductor supply chain resiliency and diversification** in view of **US's CHIPS and Science Act** and [India's Semiconductor Mission](#).



## What is the Significance of the Deal?

- **Commercial Opportunities:**
  - The US and China are giants in chip manufacturing. So, this pact with the US to strengthen cooperation in the semiconductor sector to facilitate commercial opportunities and development of innovation ecosystems **is likely to help India immensely.**
- **Electronics Supply Chain:**
  - It can help India get aligned into **a more central role in the global electronics supply chain.**
- **Can Address Semiconductor Crunch:**
  - The crunch in semiconductors supply began during the [Covid-19](#) and went on to intensify in 2021. A Goldman Sachs report suggested that **at least 169 industries had been impacted by the global chip supply shortage** in 2021.
  - The crunch has eased now but some disruptions in the supply chain still exist.
- **Realignment towards Chip Manufacturing:**
  - From a domestic perspective, this could also prompt a **potential realignment of India's current policy approach on chip manufacturing:** which is currently focused, almost entirely, on the manufacture of **mature nodes - generally defined as chips that are 40 nanometres (nm) or above** and find application in sectors such as the automotive industry - before trying to attempt an entry into **the more advanced nodes (smaller than 40nm)**, which are far more strategic, but require exceptional manufacturing capabilities and project execution skills.

## What are the Challenges for India?

- **High Investments Required:** Semiconductors and display manufacturing is a very **complex and technology-intensive sector** involving huge capital investments, high risk, long gestation and payback periods, and rapid changes in technology, which require significant and sustained investments.
- **Minimal Fiscal Support from Government:** The level of fiscal support currently envisioned is minuscule when one considers the scale of investments typically required to set up manufacturing capacities in the various sub-sectors of the semiconductor industry.
- **Lack of Fabrication Capacities:** India has a decent chip design talent but it never built-up chip fab capacity. The [ISRO](#) and the [DRDO](#) have their respective fab foundries but they are primarily for their own requirements and are also not as sophisticated as the latest in the world.
  - India has only government-owned semiconductor fabrication unit- can be added as there might be other private fabs old fab which is located in Mohali, Punjab.
- **Extremely Expensive Fab Setup:** A semiconductor fabrication facility (or fab) can cost multiples of a billion dollars to set up even on a relatively small scale and lagging by a generation or two behind the latest in technology.
- **Resource Inefficient Sector:** Chip fabs are also very thirsty units requiring millions of litres of clean water, an extremely stable power supply, a lot of land and a highly skilled workforce.

## Where does India Stand in the Semiconductor Market?

- India currently imports all chips and the market is estimated to touch USD 100 billion by 2025 from USD 24 billion now. However, for the domestic manufacturing of semiconductor chips, India has recently launched several initiatives:
  - The Union Cabinet has allocated an amount of Rs 76,000 crore in 2021 for supporting the **development of a 'semiconductors and display manufacturing ecosystem'**.
    - Consequently, a significant number of incentives would be provided to design companies to design chips.
  - India has also launched the [Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors \(SPecs\)](#) for manufacturing of electronics components and semiconductors.
  - In 2021, India announced its roughly USD 10 billion-dollar [Production-Linked Incentive \(PLI\) scheme](#) to encourage semiconductor and display manufacturing in the country.
  - In 2021, the MeitY also launched the [Design Linked Incentive \(DLI\) Scheme](#) to nurture at

least 20 domestic companies involved in semiconductor design and facilitate them to achieve a turnover of more than Rs.1500 Crore in the next 5 years.

- India's own consumption of semiconductors is expected to cross USD 80 billion by 2026 and to USD 110 billion by 2030.

## What are the Top 5 Countries Producing Semiconductors?

- Top 5 Countries that produce the most semiconductors are Taiwan, South Korea, Japan, United States, China.
- **Taiwan and South Korea make up about 80% of the global foundry base** for chips. TSMC, the world's most advanced chipmaker, is headquartered in Taiwan.
- Currently, **foundries in Taiwan account for over 70% of the chips** that mobile devices made in India utilise, according to industry estimates by the Indian Cellular and Electronics Association.

## Way Forward

- It is likely that India will achieve its long-nurtured dream of becoming an electronics hub and help ensure that there is no demand-supply gap in semiconductors.
- It is also likely that buyers won't ever have to wait for the second key to their vehicles.

[Source: IE](#)

## India's Arms Imports: SIPRI

**Prelims:** India's Arms Imports, Stockholm International Peace Research Institute, Russia-Ukraine War, Indigenization of Technology.

**Mains:** India's Arms Imports and Exports.

## Why in News?

According to [Stockholm International Peace Research Institute's \(SIPRI\) Trends in International Arms Transfers 2022 report](#), India remained the world's largest arms importer from 2018 to 2022 followed by Saudi Arabia and Ukraine.

## What are the Key Highlights of the Report?

- **Global Arms Transfer:**
  - While the global level of international arms transfers decreased by 5.1%, imports of major arms by **European states increased by 47% between 2013-17 and 2018-22 in the backdrop** of the [war in Ukraine](#).
  - The U.S. share of global arms exports increased from 33% to 40% while Russia's fell from 22% to 16%.
  - Arms imports by Pakistan increased by **14% between 2013-17 and 2018-22** and accounted for 3.7% of the global total with China supplying 77% of Pakistan's arms imports in 2018-22.
- **India's Arms Import Outlook:**

- With an 11% share of total global arms imports, India was the **world's biggest importer of major arms in 2018-22**, a position it has held for the period 1993-2022.
- India remained the top importer despite an 11% drop in its arms import between 2013-17 and 2018-22.
- **Arms Suppliers to India:**
  - **Russia was India's largest arms supplier** in the periods between 2013-17 and 2018-22, but its share of arms imports to India fell from 64% to 45% while **France emerged as the second-largest arms supplier to India** between 2018-22 at 29%, followed by the US at 11%.
    - Russia's position as India's main arms supplier is under pressure owing to strong competition from other supplier states, increased Indian arms production, and, since 2022, constraints on Russia's arms exports related to its invasion of Ukraine.
  - India also imported arms during this five-year period from **Israel, South Korea, and South Africa** which are among the **top arms exporters globally**.
- **Factors Driving Arm Imports:**
  - India's tensions with Pakistan and China largely drive its demand for arms imports.
- **Reason for Drop in Arm Imports:**
  - The drop in arms imports can be attributed to **several factors including India's slow and complex arms procurement process**, and efforts to diversify its arms suppliers, among others.
- **Arm Supply from India:**
  - India was the **third-largest arms supplier to Myanmar** during this period after Russia and China and comprised 14% of its imports.
    - 77% of Pakistan's arms supply in 2018-22 came from China.

## What is SIPRI?

- It is an **independent international institute** dedicated to research into conflict, armaments, arms control and disarmament.
- It was **established in 1966 in Stockholm (Sweden)**.
- It **provides data, analysis and recommendations**, based on open sources, to policymakers, researchers, media and the interested public.

[Source: IE](#)

## 30th Anniversary of the 73rd and 74th Amendments

**For Prelims:** 73<sup>rd</sup> and 74<sup>th</sup> Amendment, 11<sup>th</sup> Schedule of the Constitution, Distribution of power, 2<sup>nd</sup> ARC.

**For Mains:** Status of Democratic Decentralisation in India, Challenges Related to Decentralisation in India.

## Why in News? ‘

The year 2023 marks the 30<sup>th</sup> anniversary of the 73<sup>rd</sup> and 74<sup>th</sup> Amendment to the Indian Constitution. But still India's local government requires many technical, administrative and financial fixes.

## What are the 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendments?

- **73<sup>rd</sup> Constitutional Amendment Act:**
  - **Panchayati Raj Institution** was constitutionalized through the **73<sup>rd</sup> Constitutional Amendment Act, 1992**.
  - This act has added a new **Part-IX to the Constitution of India** and consists of provisions from **Articles 243 to 243 O**.
  - In addition, the act has also added a new **11<sup>th</sup> Schedule** to the Constitution and contains 29 functional items of the panchayats.
- **74<sup>th</sup> Constitutional Amendment Act:**
  - **Urban local governments** were constitutionalized through the **74<sup>th</sup> Amendment Act** during the regime of **P.V. Narsimha Rao's government** in 1992. It came into force on 1st June 1993.
  - It added **Part IX -A** and consists of provisions from **Articles 243-P to 243-ZG**.
  - In addition, the act also added **the 12<sup>th</sup> Schedule to the Constitution**. It contains **18 functional items of Municipalities**.

## What is the Status of Democratic Decentralisation in India?

- **Positive Aspects:**
  - **Empowerment of Local Communities:** Democratic decentralisation has given more power to local communities to participate in **decision-making** processes and to implement **development projects** according to their specific needs and priorities.
    - This has led to **greater participation of citizens in governance** and **decision-making processes**.
  - **Accountability and Transparency:** Decentralisation has also led to greater accountability and transparency in governance.
    - Local governments are more **directly accountable to citizens**, and decision-making processes are more transparent and open to public scrutiny.
  - **Promotion of Diversity and Inclusivity:** Democratic decentralisation has allowed for **greater representation of marginalised communities** in decision-making processes.
    - This has led to more **inclusive policies** that address the needs and interests of all citizens, regardless of their social, economic, or cultural background.
- **Challenges Related to Decentralisation in India:**
  - **Uneven Distribution of Power and Resources:** Decentralisation has been implemented **unevenly across different states and regions of India**, leading to **disparities in the distribution of power and resources**.
    - Some states and regions have been more successful in implementing decentralisation than others, which has **led to uneven development outcomes**.
  - **Ceremonial Status to Mayor:** The **2<sup>nd</sup> Administrative Reform Commission** noted the Mayor in the Urban Local Government in most states enjoys primarily a ceremonial status.
    - In most cases, the **Municipal Commissioner**, appointed by the State Government has all the powers and the elected Mayor ends up performing the role of the subordinate.
  - **Infrastructural Loopholes:** Many **Gram Panchayats (GPs)** lack a building of their own and share spaces with **schools, anganwadi, and other entities**.
    - While some have their own building, they lack basic facilities such as **toilets, drinking water, and electricity**.
    - Although **Panchayats have internet connections**, they are not always functional. Panchayat officials have to visit **Block Development offices** for any data entry purposes, which delays the work.

## Way Forward

- **Strengthening Local Government Institutions:** The institutional framework for local governance in India needs to be strengthened by providing them with more **autonomy, resources and powers**.
  - This can be done by **revising laws, regulations and procedures** that constrain the functioning of local governments
- **Capacity Building:** Local government officials and elected representatives need to be trained and



equipped with the necessary skills and knowledge to effectively carry out their roles and responsibilities.

◦ This can be achieved through **training programs, exchange visits and mentoring.**

▪ **Community Participation:** The success of democratic decentralisation depends on **active participation of citizens in decision-making** and implementation of local development plans.

◦ Community participation can be enhanced through **awareness campaigns, public meetings and consultations.**

## UPSC Civil Services Examination, Previous Year Questions (PYQ)

### Prelims

**Q1. Local self-government can be best explained as an exercise in (2017)**

- (a) Federalism
- (b) Democratic decentralisation
- (c) Administrative delegation
- (d) Direct democracy

**Ans: (b)**

**Q2. The fundamental object of the Panchayati Raj system is to ensure which among the following? (2015)**

1. People's participation in development
2. Political accountability
3. Democratic decentralisation
4. Financial mobilisation

**Select the correct answer using the code given below**

- (a) 1, 2 and 3 only
- (b) 2 and 4 only
- (c) 1 and 3 only
- (d) 1, 2, 3 and 4

**Ans: (c)**

### Mains

**Q1. Assess the importance of the Panchayat system in India as a part of local government. Apart from government grants, what sources can the Panchayats look out for financing developmental projects? (2018)**

**Q2. To what extent, in your opinion, has the decentralisation of power in India changed the governance landscape at the grassroots? (2022)**

**Source: IE**

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# Future-ready Transmission System

**Prelims:** Future-ready Transmission System, Cyber Security, Smart Grids, Discoms, CEA.

**Mains:** Need for Future-ready Transmission System.

## Why in News?

Recently, Ministry of Power has accepted the Recommendations of the Task Force Report to adopt the **Future-Ready Transmission System** in India.

- The task force was set up by the Ministry of Power in September 2021 under the chairmanship of POWERGRID to suggest ways for modernization of the [Transmission Sector](#) and making it smart & future ready.

## What are the Key Recommendations?

- The task force has recommended a **bouquet of technological and digital solutions** which have been clubbed under,
  - Categories of modernization of existing transmission system,
  - Use of advanced technology in construction & supervision, operations & management,
  - Smart & future-ready transmission system,
  - Up-skilling of the workforce.
- The Task Force has recommended **Centralized Remote Monitoring, Operation of Substations including SCADA** (supervisory control and data acquisition), Flexible AC Transmission devices (FACTS), [Cyber Security](#), [Drones](#) & [Robots](#) in construction/inspection of transmission assets etc.
- Also recommended **benchmarks for transmission network availability and voltage control** based on performance of global transmission utilities.

## What is the Need for a Future-ready Transmission System?

- **Meeting Growing Energy Demand:**
  - With India's population growing and the economy expanding, there is an increasing demand for energy.
  - A future-ready transmission system can help meet this demand by enabling the **transmission of power from new power generation sources** to the distribution network.
- **Integration of Renewable Energy:**
  - India has set an ambitious target of achieving 500 GW of [Renewable Energy](#) capacity by 2030.
  - A future-ready **transmission system can help integrate this large-scale renewable energy** into the grid by ensuring efficient transmission and distribution of power.
- **Improved Grid Stability:**
  - A future-ready transmission system can help improve grid stability by enabling the integration of advanced technologies such as [smart grids](#), energy storage systems, and demand response systems.
- **Increased Efficiency:**
  - A future-ready transmission system can **help reduce transmission losses, which currently account for around 22% of the total power generated in India**. By reducing transmission losses, the country can save a significant amount of energy and reduce greenhouse gas emissions.
- **Enhancing Grid Resilience:**
  - A future-ready transmission system can help enhance grid resilience by providing backup power during emergencies, ensuring the availability of power during [natural disasters](#), and

preventing blackouts.

▪ **Meeting Sustainable Goals:**

- A modern transmission grid is vital to achieve the government's vision **to provide 24x7 reliable and affordable power to the people** and also meet the sustainability goals.
- Modern transmission systems can play a significant role in meeting sustainable goals by **enabling the integration of renewable energy, reducing greenhouse gas emissions**, and improving energy efficiency.

## What are the Challenges to the Transmission System in India?

▪ **Fossil fuel derived energy:**

- Thermal power based on fossil fuels such as coal, natural gas and diesel accounts **for 80% of the country's generation**.
- Moreover, the majority of plants in India **are old and inefficient**.

▪ **Higher Cost of Fuel:**

- Coal extraction from state-run Coal India, has stagnated due to **delayed environmental clearances, land acquisition** troubles and little investment in advanced technologies.
- Many power companies have to **look for coal mines overseas and source more expensive imports** (despite having abundant coal reserves).

▪ **Discoms Facing Losses:**

- Tariffs haven't risen enough for years to cover costs for subsidies in the agriculture sector. Also, high aggregate technical and commercial (AT&C) losses, has forced electricity distributors (discoms) into losses as high as 40% in some states, while the country-wide average is 27%.

## What is the Potential of the Transmission Sector?

- India is the **third-largest producer and consumer of electricity worldwide**, with an installed power capacity of 408.71 GW as of 31st October 2022.
  - As of October 31, 2022, **India's installed renewable energy capacity (including hydro) stood at 165.94 GW**, representing 40.6% of the overall installed power capacity.
- The Government of India is preparing a 'rent a roof' policy for supporting its target of generating 40 GW of power through solar rooftop projects by 2022. It also plans to set up 21 new **Nuclear Power Reactors** with a total installed capacity of 15,700 MW by 2031.
- The **Central Electricity Authority (CEA)** estimates India's **power requirement to grow to reach 817 GW by 2030**. Also, by 2029-30, CEA estimates that the share of renewable energy generation would increase from 18% to 44%, while that of thermal energy is expected to reduce from 78% to 52%.

## Way Forward

- By **investing in modern transmission systems**, India can achieve its sustainable energy goals while **meeting the growing energy demands of the country**.
- In the current decade (2020-2029), the Indian electricity sector is likely to witness a major transformation with respect to demand growth, energy mix and market operations.
- India wants to **ensure that everyone has reliable access to sufficient electricity at all times**, while also accelerating the clean energy transition by lowering its reliance on dirty fossil fuels and moving toward more environmentally friendly, renewable sources of energy.
- Future investments will benefit from strong demand fundamentals, policy support and increasing government focus on infrastructure.

## UPSC Civil Services Examination, Previous Year Questions (PYQ)

**Q. Give an account of the current status and the targets to be achieved pertaining to renewable energy sources in the country. Discuss in brief the importance of National Programme on Light Emitting Diodes (LEDs). (2016)**

## Committee to Oversee Transfer/Import of Wild Animals in India

**For Prelims:** Pangolins, Indian Star Tortoise, Wildlife Protection Act of 1972.

**For Mains:** Issues Related to Captive Wild Animals in India.

### Why in News?

The [Supreme Court](#) has increased the **jurisdiction and powers of a high-powered committee** led by its former judge, **Justice Deepak Verma**, to conduct necessary checks concerning the **import, transfer, procurement, rescue and rehabilitation of wild animals**, including those in captivity, across **India**.

- Before, the committee's powers were only limited to Tripura and Gujarat, but now it has been extended to cover the whole of India.

### What are the Major Changes in the Jurisdiction of the Committee?

- [State Chief Wildlife Wardens](#) will also be part of the committee, and it will handle all present and future complaints regarding the issue.
- The committee can also consider requests for **approval, dispute, or grievance** regarding the welfare of wild animals by **rescue centres or zoos across India**.
- The Supreme court ordered **Central and State authorities** to **report the [seizure of wild animals](#)** or abandonment of captive wild animals to the committee.

### What are the Major Issues Related to Captive Wild Animals in India?

- **Lack of Adequate Facilities:** Many zoos and rescue centres in India are **not equipped with the necessary facilities** and resources to provide proper care for captive animals.
  - Besides food poisoning, zoo animals also suffer due to [animal-human conflict](#) and lack of veterinary care for diseases like hepatitis, tick fever etc.
    - According to **CAG audit report 2020 reveals glaring gaps in animal health care in Bengaluru and other state zoos**. The **Delhi Zoo** alone has lost around 450 animals, including tigers and lions due to health reasons.
- **Illegal Trade:** There is a **thriving illegal trade in wild animals in India**, with many animals being captured and sold for their **fur, skin, or for use in traditional medicine**.
  - This has led to a decline in many species, and many captive animals are believed to have been illegally acquired.
  - **Examples:** [Pangolins](#) and [Indian star tortoises](#) are illegally traded in India for their **meat, skin, or as pets**, contributing to the decline of their populations.
- **Inadequate Rehabilitation:** Many rescued animals are **not properly rehabilitated** before being released back into the wild. This can lead to problems with their **survival and adaptation to their natural habitat**.

### Way Forward

- **Improved Regulations:** The [Wildlife Protection Act of 1972](#) is a crucial regulation for the



protection of wildlife in India. However, there is a **need to strengthen and update this law** to keep up with changing conditions.

- **Protecting Natural Habitats:** Protecting the **natural habitats of wild animals** is crucial for their survival. This includes efforts to prevent [deforestation](#), **poaching**, and **other threats** to their natural habitats.
- **Multisectoral Collaboration:** Collaboration between government agencies, NGOs, and other stakeholders is crucial for improving the welfare of captive wild animals in India.
  - By working together, they can **identify and implement effective solutions** to the problems facing these animals.

[Source: TH](#)

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## Manipur Government Withdraws from SoO Agreement

**For Prelims:** Suspension of Operations (SoO) agreement, Kuki National Army, Zomi Revolutionary Army (ZRA).

**For Mains:** Insurgency issues in Northeast India.

Why in News?

On **March 10, 2023** the Manipur government decided to withdraw from the [Suspension of Operations \(SoO\) agreement](#) with two militant groups, [Kuki National Army \(KNA\)](#) and **Zomi Revolutionary Army (ZRA)**, alleging their involvement in inciting agitation among **forest encroachers**.

### What is Kuki Insurgency?

- The **Kuki insurgency began after ethnic clashes** with the [Nagas of Manipur](#) in the early 1990s, with the **Kukis** arming themselves against Naga aggression.
- The major reason for clashes is the land claimed by the Kukis as their "**homeland**" in the **Manipur hills overlaps with the imagined Naga homeland** of Greater Nagaland or Nagalim.
- Nearly 30 Kuki insurgent groups operate in Manipur, of which **25 are under tripartite SoO** with the **Government of India and the state**.
  - As many as 17 are under the **umbrella group Kuki National Organisation (KNO)**, and 8 are under the [United People's Front \(UPF\)](#).
- The Kuki outfits initially demanded a **separate Kuki state** but now seek a '**Kukiland territorial council**.'

### What is the Zomi Revolutionary Army (ZRA)?

- The **ZRA** is a militant group operating in the northeastern Indian state of Manipur.
  - The group was formed in 1996 with the aim of **securing greater autonomy** for the Zomi people, an indigenous community living in the region.
- The ZRA is believed to be a splinter group of the larger **Zomi Nationalist Movement (ZNM)**, which was active in the 1980s and 1990s.

### What is the Suspension of Operations (SoO) Pact?

- **About:**
  - The **SoO agreement with Kuki was signed in 2008 as a ceasefire agreement between the Indian government and various Kuki militant groups** operating in the

northeastern states of Manipur and Nagaland.

- Under the agreement, **the Kuki militant groups agreed to stop carrying out violent activities** and come to designated camps to be monitored by security forces.
  - In return, the **Indian government agreed to suspend its operations** against the Kuki groups.

▪ **Terms of SoO Pact:**

- The **Joint Monitoring Group (JMG)** oversees the effective implementation of the pact.
  - Security forces, including **state and central forces**, cannot launch operations, nor can the underground groups.
- Signatories of **UPF and KNO abide by the Constitution of India**, laws of the land, and territorial integrity of Manipur.
  - They are prohibited from **committing atrocities and extortion**.
  - The militant cadres are confined to designated camps, with arms deposited in a safe room under a double-locking system.
  - The groups are given arms only to **guard their camps and protect their leaders**.

### UPSC Civil Services Examination, Previous Year Question:

**Q.** The North-East region of India has been infested with insurgency for a very long time. Analyze the major reasons for the survival of armed insurgency in this region. **(2017)**

[Source: IE](#)

## Japanese Encephalitis

Why in News?

A study conducted in **Gorakhpur district, India**, involving 266 children vaccinated with the Chinese SA-14-14-2 vaccine ([a live, attenuated vaccine](#)) for [Japanese encephalitis](#), found very low levels of **neutralising antibodies IgG** at different time points after vaccination.

- However, the study did not measure **cell-mediated immune responses** ([T-cell immune responses](#))

### What does the Study on Vaccine for Japanese Encephalitis Suggest?

- About:
  - The study found that **seroprotection** against the virus decreased in the vaccinated children.
    - **Seroprotection** is an antibody response capable of preventing infection, e.g., after a vaccination or a previous infection with a microorganism.
  - Nearly **98% of the children who received the vaccine did not have any IgG antibodies** against the virus.
  - **Similar results were seen in a study carried out in Bangladesh**, where children were immunised with the Chinese vaccine.
- **Comparison with Other Vaccine:**
  - In contrast, a trial carried out using an **inactivated vaccine** ([Jenvac](#)), developed by [Bharat](#)

- [Biotech](#) in collaboration with NIV Pune has **found superior protection** at the end of two years even with a single dose.
- Jenvac has been approved as a **single-dose vaccine**.
    - The **November 2020** trial found that **two doses of Jenvac** produced more antibodies than two doses of the Chinese vaccine.

## What is Japanese Encephalitis?

### ▪ About:

- **Japanese Encephalitis (JE)** is a **viral infection** that can cause inflammation in the **brain**.
  - It is caused by a flavivirus that **belongs to the same genus as dengue, yellow fever and West Nile viruses**.
- Japanese encephalitis virus (JEV) is also a major cause of **Acute Encephalitis Syndrome (AES)** in India.

### ▪ Transmission:

- The disease is transmitted to humans through bites from **infected mosquitoes** of the **Culex species**.
- These mosquitoes breed mainly in **rice fields** and large water bodies rich in **aquatic vegetation**.

### ▪ Treatment:

- There is **no antiviral treatment for patients** with JE.
  - Treatment, available, is **supportive to relieve symptoms** and stabilise the patient.

### ▪ Prevention:

- **Safe and effective JE vaccines** are available to prevent the disease.
  - **JE vaccination** is also included under the **Universal Immunisation Program** of the Government of India.

## What are Antibodies?

- **About:** An **antibody is a protein produced by the body's immune system** when it detects harmful substances, called antigens.
- **Types:** There are **5 types of heavy chain constant regions** in antibodies (immunoglobulin) and according to these types, they are classified into IgG, IgM, IgA, IgD, and IgE.
  - **IgG is the main antibody in blood and it has a powerful ability to bind to bacteria and toxins**, and thus it takes on an important role in the biological defense system. It is the only isotype that can pass through the placenta, and **IgG transferred from the mother's body protects a newborn**.

## 5 Types of Antibodies

Antibodies or immunoglobulins (Ig) are Y-shaped proteins that recognize unique markers (antigens) on pathogens.



**IgA**

Secreted into mucous, saliva, tears, colostrum. Tags pathogens for destruction.



**IgD**

B-cell receptor. Stimulates release of IgM.



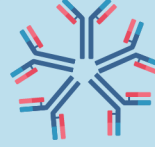
**IgE**

Binds to mast cells and basophils. Allergy and antiparasitic activity.



**IgG**

Binds to phagocytes. Main blood antibody for secondary responses. Crosses placenta.



**IgM**

Fixes complement. Main antibody of primary responses. B-cell receptor. Immune system memory.

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

**Q.1 Which one of the following statements best describes the role of B cells and T cells in the human body?(2022)**

- (a) They protect the environmental allergens. body
- (b) They alleviate the body's pain and inflammation.
- (c) They act as immunosuppressants in the body.
- (d) They protect the body from the diseases caused by pathogens

**Ans: (d)**

**Q.2 Consider the following statements: (2017)**

1. In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
2. Sexual transmission of Zika virus disease is possible.

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

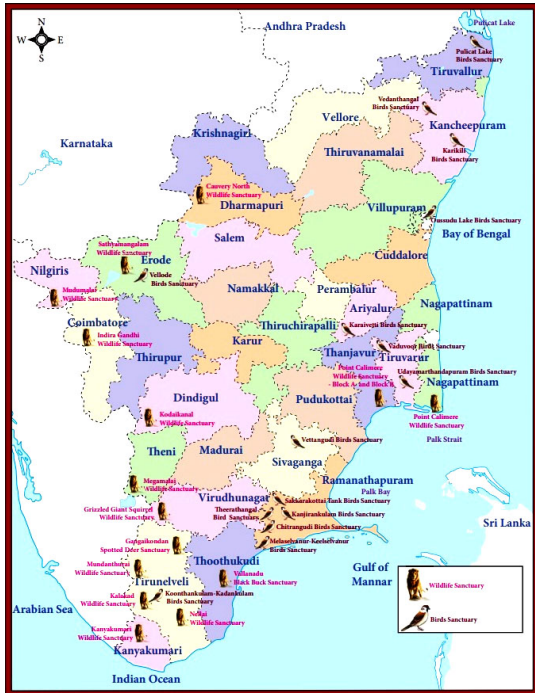
- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: (c)**



# Rapid Fire Current Affairs

## Kalakkad-Mundanthurai Tiger Reserve (KMTR)



Researchers from Tamil Nadu have spotted a rare moth species for the first time in India in the buffer zone of Kalakkad-Mundanthurai Tiger Reserve (KMTR) after it was last sighted 127 years ago in Sri Lanka in 1893.

*Mimeusemia ceylonica* is a moth species belonging to the subfamily Agaristinae and family Noctuidae.

KMTR was created in 1988 by combining the existing and contiguous Kalakkad and Mundanthurai wildlife sanctuaries. Kalakkad - Mundanthurai was declared as the first Tiger reserve in Tamil Nadu. It occupies the southern part of the Western Ghats and consists of wet evergreen forests; it is the catchment area of 14 rivers. It is also part of the Agasthyamala Biosphere Reserve. Apart from tigers, the forest is home to Sambar, spotted deer, elephants, leopards, wild dogs, etc., and a large number of bird species, reptiles, etc.

Read More: [Tiger Reserves of Tamil Nadu](#)

## Multilateral Exercise La Perouse



The third edition of the multilateral exercise La Perouse **is scheduled to be conducted in the Indian Ocean Region from 13 to 14 March 2023**. This edition **will witness participation of** personnel, ships and integral helicopters of Royal Australian Navy, French Navy, Indian Navy, Japanese Maritime Self Defence Force, Royal Navy and the United States Navy.

The biennial exercise La Perouse is **conducted by the French Navy** and is aimed at enhancing maritime domain awareness and **optimising maritime coordination amongst the participating navies in the Indo-Pacific Region**.

Indigenously **built guided missile frigate [INS Sahyadri](#) and fleet tanker INS Jyoti** will be participating in this edition of the exercise. Participation of Indian Navy in the exercise **showcases the high levels of synergy, coordination and inter-operability between the friendly navies**, and their commitment to a rules-based international order in the Indo-Pacific region.

**Read More:** [Indo-Pacific Region](#)

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## Oscars



Recently, the **Naatu Naatu** song has been awarded the academy award for best original song in a motion picture at the **95<sup>th</sup> Oscars**. This is the **first Indian song and the second Indian-language song to win this award**. The **Elephant Whisperer** won an award for the best documentary short film.

Standing 13 1/2 inch tall and dressed in gold, **the Oscars statuette is one of the most recognised trophies in the world**. Officially named the Academy Award of Merit, the **statuette is better known as Oscar**, and the nickname was **officially adopted by the Academy of Motion Picture Arts and**

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## Dragon Fruit



Under the **Mission for Integrated Development of Horticulture (MIDH)**, a roadmap is being prepared for the cultivation of dragon fruit in the identified potential area to increase the **production of exotic and niche area fruits**. **The target for area expansion under MIDH for Kamalam is 50,000 ha. in 5 years.**

Kamalam or Dragon Fruit **widely known as Pitaya, has its origin in Southern Mexico, Central America** and South America. It is widely cultivated in South-East Asia, India, US, The Caribbean Islands, **Australia throughout the tropical and sub-tropical world. It is also known as “Wondrous Fruit of the 21<sup>st</sup> century”.**

It **grows on the Hylocereus cactus, also known as the Honolulu queen.** At the moment, In India, **the cultivation of Kamalam Fruit is limited** and farmers of Karnataka, Kerala, Tamil Nadu, Maharashtra, Gujarat, Chhattisgarh, Odisha, West Bengal, Andhra Pradesh, Andaman & Nicobar Island, Mizoram and Nagaland have taken up its cultivation.

**It goes by many names, including pitaya, pitahaya, and strawberry pear.** The two most common types have bright red skin with green scales that resemble a dragon. The most widely available variety has white pulp with black seeds, though a less common type with red pulp and black seeds exists as well. **The fruit is considered good for diabetic patients, low in calories and high in nutrients like iron, calcium, potassium and zinc.**

Read More: [Dragon Fruit, CoE Under MIDH](#)

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