



## Udan Scheme

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# UDAN SCHEME



## FEATURES:

- Connecting Small and Medium cities with big cities through air service
- Providing affordable, economically viable, and profitable air travel
- Extending financial incentives to selected airlines to encourage operations from unserved and under-served airports.

## ABOUT:

- A Regional Connectivity Scheme (RCS)
- Launched in October 2016 and operational for a period of 10 years
- Formulated in Pursuance of the National Civil Aviation Policy (NCAP)-2016
- Udan 4.1 is the latest project.

## BENEFITS:

- Democratisation of the Aviation Sector
- Employment Generation
- Boost to Tourism Sector
- Connecting smaller airports, special helicopters and sea plane routes.

### • Lifeline UDAN:

Air transport of medical cargo and essential supplies across India at the time of the Covid-19.

### • Krishi UDAN:

To assist farmers in transporting agricultural products

### • International UDAN:

To connect India's smaller cities directly to some key foreign destinations.





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## **Eight Years of Pradhan Mantri Jan Dhan Yojna (PMJDY)**

**For Prelims:** Pradhan Mantri Jan Dhan Yojana (PMJDY), Financial Inclusion Index, Digital Identity (Aadhaar), Centre for Financial Literacy (CFL) Project, Promotion of Digital Payments, E-commerce


**For Mains:** Issues Relating to Poverty & Hunger, Inclusive Growth, Government Policies & Interventions

### **Why in News?**


Recently, [Pradhan Mantri Jan Dhan Yojana \(PMJDY\)](#) - National Mission for [Financial Inclusion](#),

completed **eight years of successful implementation.**

- **More than 46.25 crore beneficiaries banked** under PMJDY since inception, amounting to Rs. 1,73,954 crores.



# Pradhan Mantri Jan Dhan Yojana



### Before

**Financial exclusion**

Leakages in subsidies, benefits not reaching the targeted population due to beneficiaries not having own authentic savings bank accounts


### What's New ?

**New ambition, higher achievement**

Universal access to banking facilities with atleast one basic banking account for every household, financial literacy, access to credit, insurance and pension facility

## Key Features

#TransformingIndia



1. Account can be opened in any branch or business correspondent (Bank Mitra) outlet
2. Interest on deposit
3. No minimum balance required
4. Easy transfer of money across India
5. After satisfactory operation of the account for 6 months, overdraft facility to be permitted
6. Accidental Insurance Cover, RuPay Debit Card must be used atleast once in 45 days
7. PMJDY accounts with zero balance
8. Life insurance cover of Rs. 30,000/-
9. Beneficiaries of Government Schemes will get Direct Benefit Transfer in these accounts
10. Access to pension, insurance products
11. Overdraft facility upto Rs.5000/- is available in only one account per household, preferably lady of the household
12. Accidental insurance cover of Rs.1 Lakh

## What is Pradhan Mantri Jan Dhan Yojana (PMJDY)?

- **About:**
  - **Pradhan Mantri Jan Dhan Yojana (PMJDY) is the National Mission for Financial Inclusion.**
  - It ensures **access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner.**
  - PMJDY has been the foundation stone for people-centric economic initiatives. Whether it is **Direct Benefit Transfer (DBT)**, **Covid-19** financial assistance, **PM-KISAN**, increased wages under **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA)**, life and health insurance cover, the first step of all these initiatives is to provide every adult with a bank account, which PMJDY has nearly completed.
- **Objectives:**
  - Ensure **access to financial products & services** at an affordable cost.
  - **Use of technology to lower cost & widen reach.**
- **Basic tenets of the scheme:**
  - **Banking the unbanked:** Opening of **basic savings bank deposit (BSBD) account** with minimal paperwork, relaxed KYC, e-KYC, account opening in camp mode, zero balance & zero charges.
  - **Securing the unsecured:** Issuance of **Indigenous Debit cards for cash withdrawals & payments** at merchant locations, with **free accident insurance coverage of Rs. 2 lakhs.**
  - **Funding the unfunded:** Other financial products like **micro-insurance, overdraft for consumption, micro-pension & micro-credit.**

## What is Financial Inclusion?

- **Financial inclusion** is defined as the process of **ensuring access to financial services and timely and adequate credit where needed by vulnerable groups** such as weaker sections and low-income groups at an affordable cost.
- In a diverse country like India, financial inclusion is a critical part of the development process. Since independence, the **combined efforts of successive governments, regulatory institutions, and civil society have helped in increasing the financial-inclusion** net in the country.
- Being able to have access to a transaction account is a **first step toward broader financial inclusion since a transaction account allows people to store money, and send and receive payments.**
  - A transaction account serves as a **gateway to other financial services.**

## What are the Other Initiatives to Increase Financial Inclusion in India?

- [Digital Identity \(Aadhaar\)](#)
- [National Centre for Financial Education \(NCFE\)](#)
- [Centre for Financial Literacy \(CFL\) Project](#)
- [Expansion of financial services in Rural and Semi-Urban Areas](#)
- [Promotion of Digital Payments](#)

## What are the Six Pillars of the Scheme?

- **Universal access to banking services:** Branch and Banking Correspondants.
- **Overdraft Facility: Basic savings bank accounts with overdraft facility** of Rs. 10,000/- to every eligible adult.
- **Financial Literacy Programme:** Promoting savings, use of ATMs, getting ready for credit, availing insurance and pensions, using **basic mobile phones for banking.**
- **Creation of Credit Guarantee Fund:** To provide banks some guarantee against defaults.
- **Insurance:** Accident cover up to Rs. 1,00,000 and life cover of Rs. 30,000 on account opened between 15 Aug 2014 to 31 January 2015.
- **Pension scheme** for Unorganized sector.

## What are the Achievements of the Scheme?

- **Approach towards Digital Banking:**
  - Accounts opened are **online accounts in the core banking system** of banks.
  - Focus has shifted from **'Every Household' to Every Unbanked Adult'**.
  - **Fixed-point Business Correspondents.**
  - **Simplified KYC / e-KYC** in place of cumbersome KYC formalities.
- **Extension of PMJDY with New Features:**
  - **Focus shift from 'Every Household' to Every Unbanked Adult'.**
  - **RuPay Card Insurance:**
    - Free accidental insurance cover on RuPay cards increased from Rs. 1 lakh to Rs. 2 lakh for PMJDY accounts opened after 28th August 2018.
  - **Enabling Interoperability:**
    - Through **RuPay debit card or Aadhaar enabled Payment System (AePS).**
  - **Enhancement in overdraft facilities:**
    - Overdraft (OD) limit doubled from Rs 5,000/- to Rs 10,000/-; OD upto Rs 2,000/- (without conditions).
    - Increase in upper age limit for **OD from 60 to 65 years.**
  - **Jan Dhan Darshak App:** A mobile application, **Jan Dhan Darshak App** was launched to provide a citizen centric platform for locating banking touch points such as bank branches, ATMs, Bank Mitras, Post Offices, etc. in the country.

- **Increased Financial Inclusion:**
  - Within 10 days of nationwide lockdown due to Covid-19, **more than about 20 crore women PMJDY accounts were credited with ex-gratia.**
  - **PMJDY Accounts have grown three-fold** from 14.72 crore in Mar'15 to 46.25 crore as on 10<sup>th</sup> August 2022.
  - In August'22, out of total 46.25 crore PMJDY accounts, **37.57 crore (81.2%) are operative.**
    - Only 8.2% of PMJDY accounts are zero balance accounts.
  - **Deposits have increased about 7.60 times** with an increase in accounts 2.58 times (Aug'22 / Aug'15).
- **Formalisation of Financial System:**
  - It provides an **avenue for the poor to bring their savings into the formal financial system**, an avenue to remit money to their families in villages besides taking them out of the clutches of the usurious money lenders.
- **Prevention of Leakage:**
  - DBTs via PM Jan Dhan accounts have **ensured every rupee reaches its intended beneficiary** and prevents systemic leakage.
- **Smooth DBT transactions:**
  - Close monitoring to avoid DBT failures in consultation with DBT Mission, **National Payments Corporation of India (NPCI)**, banks and various other Ministries ensures that the eligible beneficiaries receive their DBT in time.
- **Digital transactions:**
  - The total number of **digital transactions have gone up** from 978 crore in FY 2016-17 to 7,195 crore in FY 2021-22.
    - The total number of **Unified Payments Interface (UPI) financial transactions** have increased from 1.79 crore in FY 2016-17 to 4,596 crore in FY 2021-22.
    - Similarly, total number of **RuPay card transactions at Point of Sales (PoS) and E-commerce** have increased from 28.28 crore in FY 2016-17 to 151.64 crore in FY 2021-22.

## Way Forward

- There must be an endeavour to **ensure coverage of PMJDY account holders under micro insurance schemes.**
  - Eligible PMJDY accountholders will be sought to be covered under PMJJBY and PMSBY. Banks have already been communicated about the same.
- Promotion of digital payments including RuPay debit card usage amongst PMJDY accountholders through creation of acceptance infrastructure across India.
- Improving access of PMJDY account holders to **Micro-credit and micro investment such as flexi-recurring deposit etc.**

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

### Prelims

Q. 'Pradhan Mantri Jan-Dhan Yojana' has been launched for (2015)

- (a) providing housing loan to poor people at cheaper interest rates
- (b) promoting women's Self-Help Groups in backward areas
- (c) promoting financial inclusion in the country
- (d) providing financial help to the marginalized communities

Ans: (c)

Exp:

- Pradhan Mantri Jan-Dhan Yojana (PMJDY) is a National Mission on Financial Inclusion encompassing an integrated approach to bring about a comprehensive financial inclusion of all the households in

the country.

- The plan envisages universal access to banking facilities (with at least one basic bank account for every household), financial literacy, access to credit, insurance and pension facility. In addition, the beneficiaries would get RuPay Debit card having an inbuilt accident insurance cover of `2 lakh.
- It also seeks to channel all government benefits (from Centre/State/Local Body) to the beneficiary's accounts and pushing the Direct Benefits Transfer (DBT) Scheme of the Union Government.
- **Therefore, option C is the correct answer.**

## **Mains**

**Q.** Pradhan Mantri Jan Dhan Yojana (PMJDY) is necessary for bringing unbanked to the institutional finance fold. Do you agree with this for financial inclusion of the poorer section of the Indian society? Give arguments to justify your opinion. **(2016)**

**Source:** [PIB](#)

## **Aadhaar-Voter ID Linkage**

**For Prelims:** Election Commission (EC), Aadhaar, Voter ID, Right to Privacy, Personal Data Protection (PDP) law.

**For Mains:** Impacts of Linking Voter-ID with Aadhaar.

### **Why in News?**

Recently, the [Election Commission \(EC\)](#) started a campaign to promote the linkage of Voter ID and Aadhaar,

- Further, Government officials have asked individuals to **link them [Aadhaar](#) with their Voter IDs and failure to link voter ID with Aadhar could lead to the cancellation of their Voter ID card.**

### **Why is the Government Pushing to Link Voter ID with Aadhar?**

- **Update Database:**
  - The linking project would help the Election Commission, which **conducts regular exercises to maintain an updated and accurate record of the voter base.**
- **Remove Duplication:**
  - To **weed out duplication of voters, such as migrant workers who may have been registered more than once on the electoral rolls** in different constituencies or for persons registered multiple times within the same constituency.
- **Pan India voter ID:**
  - As per the government, linkage of Aadhaar with voter IDs will **assist in ensuring that only one Voter ID is issued per citizen of India.**

### **What are the Significances of this Linkage?**

- **Universal coverage:**
  - At the end of 2021, **99.7% of the adult Indian population had an Aadhaar card.**
    - This coverage **exceeds that of any other officially valid document** such as driver's licence, ration cards, PAN cards etc that are mostly applied for specific purposes.
- **Reliable & Cost Effective:**
  - Since Aadhaar allows for biometric authentication, **Aadhaar-based authentication and verification are considered more reliable, quicker and cost-efficient when compared to other IDs.**

## Is linking Aadhaar with One's Voter ID mandatory?

- **Legal status:**
  - In December 2021, Parliament passed the [Election Laws \(Amendment\) Act, 2021](#) to amend the [Representation of the People, Act, 1950](#), Section 23(4) was inserted in the Representation of the People Act, 1950.
  - According to it the **electoral registration officer may for the purpose of establishing the identity of any person or for the purposes of authentication of entries in electoral roll of more than one constituency or more than once in the same constituency for citizens already enrolled**, require them to furnish their Aadhaar numbers.
- **Recent Changes:**
  - Recently, the government **notified changes to the Registration of Electors Rules, 1960.**
    - **Rule 26B** was added to provide that **every person whose name is listed in the roll may give his Aadhar number to the registration officer.**
    - **Confusing Government Actions:**
      - There have been assurances given by both the government and the EC that linkage of the Aadhaar with Voter ID is optional, but this **does not seem to be reflected in Form 6B issued under the new Rule 26B.**
    - **Form 6B:**
      - It provides the format in which **Aadhaar information may be submitted to the electoral registration officer.**
      - Further, it provides the **voter to either submit their Aadhaar number or any other listed document.**
        - However, the option to submit other listed documents is exercisable **only if the voter is not able to furnish their Aadhaar number because they do not have an Aadhaar number.**

## What are the Issues Related to Linking Aadhaar with Voter ID?

- **Unclear Constitutional Status:**
  - In the [Puttaswamy case\(Right to Privacy\)](#), one of the questions that the Supreme Court explored was **whether the mandatory linking of Aadhaar with bank accounts was constitutional or not.**
- **Different Purpose:**
  - The preference for Aadhaar for the purposes of determining voters is puzzling as Aadhaar is **only proof of residence and not proof of citizenship.**
    - Therefore, verifying voter identity against this will only **help in tackling duplication but will not remove voters who are not citizens of India from the electoral rolls.**
- **Biometric Errors:**
  - The estimate of **error rates in biometric-based authentication differs widely.**
    - As per the **Unique Identification Authority of India in 2018, Aadhaar-based biometric authentication had a 12% error rate.**
      - This concern is also reflected in the previous experiences of using Aadhaar to clean electoral rolls.
    - A similar exercise undertaken in 2015 in Andhra and Telangana **led to the disenfranchisement of around 30 lakh voters** before the Supreme Court



stalled the process of linkage.

▪ **Violation of Right to Privacy:**

- The linking of the **two databases of electoral rolls and Aadhaar could lead to the linkage of Aadhaar's "demographic" information with voter ID information and lead to violation of the right to privacy and surveillance measures by the state.**

## Way Forward

▪ **Reforms in Legislation:**

- The Government must **invite public opinion and allow deeper parliamentary scrutiny** before implementing any new provisions.
- It is of utmost importance in a Parliamentary democracy like India that not just the ordinary citizens but also the **elected representatives are not being deprived of their rights and opportunities.**
- A **productive debate** raising the concerns and the significance of a proposed bill is **essential to identify and eliminate the concerns** legislation may pose.

▪ **Ensure the Privacy of Citizens:**

- Before pursuing the Aadhaar-voter ID integration, the **government shall first go for enacting the [Personal Data Protection \(PDP\) law](#).**
- The **PDP regime must also apply to government entities** and require them to obtain an individual's explicit consent before sharing their data across various government institutions.

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

### Prelims

**Q. Consider the following statements: (2018)**

1. Aadhaar card can be used as a proof of citizenship or domicile.
2. Once issued, Aadhaar number cannot be deactivated or omitted by the Issuing Authority.

**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)**

**Exp:**

- Unique Identification Authority of India (UIDAI) is a statutory authority established under the provisions of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 by the Gol, under the Ministry of Electronics and Information Technology (MeitY).
- UIDAI is responsible for issuance of a 12 digit Unique Identification number (UID), named as "Aadhaar", to all residents of India that is robust enough to **eliminate duplicate and fake identities, and can be verified and authenticated in an easy, cost-effective way.**
- The Aadhaar platform helps service providers authenticate identity of residents electronically, in a safe and quick manner, making service delivery more cost effective and efficient. According to the Gol and UIDAI, **Aadhaar is not a proof of citizenship. Hence, statement 1 is not correct.**
- However, UIDAI has also published a set of contingencies when the Aadhaar issued by it is liable for rejection. **An Aadhaar with mixed or anomalous biometric information or multiple names in a single name (like Urf or Alias) can be deactivated.** Aadhaar can also get deactivated upon non-usage of the same for three consecutive years. Hence, statement 2 is not correct. Therefore, option (d) is the correct answer.

## Mains

**Q.** Examine the scope of Fundamental Rights in the light of the latest judgement of the Supreme Court on Right to Privacy (2017)

[Source: TH](#)

## Civil Services Reforms

**For Prelims:** Mission Karmayogi, Citizen Charters, National Conference on e-Governance, CPGRAMS.

**For Mains:** Need for Reforms in Civil Services.

### Why in News?

Recently, one of India's most respected police officers highlighted a case for the government to launch a "Nitipath" scheme on the lines of [Agnipath](#) and the Short Service Commission for military officers.

### What can be the Framework of the Scheme?

#### ▪ About:

- Officers can be filtered out after 10, 25 and 30 years of service.
- This would rectify the top-heavy structure, and create a culture of public service and performance.
- The government can **recruit four times as many candidates at the entry level** without being constrained by the number of apex level positions and career paths.
- Instead of **600-1,000 candidates appointed to the AIS, we can have 4,000 officers entering service every year.**
  - Only 25% of them will be retained after a performance review after the fourth year.

#### ▪ Benefits:

- This **will bring a lot of young and energetic officers at the junior levels**, give them strong incentives to perform, and give them work experience in government.
  - The average quality of the top 4,000 all-India rank holders will not be markedly different from that of the top 1,000. So, **a four-year review period will allow the government** to get a better pick than merely exam and interview scores.
- Those who leave government service after four years will have **good economic prospects**. It is quite likely many will voluntarily choose to leave and opt for higher studies or private employment. The addition of such youthful, trained and experienced managerial cadre will benefit the broader economy.
- Instituting **performance reviews and exit filters every five years will create a path towards a semi-structural reform** of India's administrative machinery.
- A lateral entry scheme can accommodate the re-entry of people who might have been filtered out at junior levels but have distinguished themselves since.

### What are the areas which require Reforms?

#### ▪ Conversion of ICS into IAS:

- After the post-Independence conversion of ICS into IAS, it failed in bringing about a more indigenous element in it.
- This was because **no substantive attempts were made to link IAS with our very own and essentially Indian philosophy** of public administration.
- As a consequence, the transformation of ICS to IAS ended up being just in the abbreviations.
- The governance philosophy of the likes of great Indian administrators like Arya Chanakya, Rajendra Chola, Harihara and Bukka of Vijayanagara fame, Chhatrapati Shivaji Maharaj or Sayajirao Gaikwad continued to be largely ignored even after Independence.
- **Needless and Excessive Element of Security:**
  - To start with, the thick and enduring firewall that protects civil services personnel needs a relook.
  - After entering the prestigious club of civil servants, one virtually never looks back, never looks around, and more importantly, never looks within.
  - This security **cover makes them insensitive to and unconcerned about people's expectations**; the heady cocktail of superiority complex and arrogance afflicts their thinking; and more worryingly this security cover provides them a sense of permanency in power vis-a-vis their politician bosses.
  - The behaviour of several civil services officers shows their total disregard for transparency and accountability.
- **Lack of Specialisation:**
  - Administrative officials are **supposed to handle several issues that require specialised know-how**.
    - In what way can a secretary, steel and mines, today be expected to handle an assignment as secretary, culture, tomorrow?
  - While generalists also have their importance, in today's world it **would be practical to segregate IAS officers in at least four-five important groupings** like education-culture, finance, infra development with natural resources, and social ministries like social justice, labour, women and children, etc.
  - This would bring greater domain knowledge to the table and empower officers for more enlightened and insightful decision-making.
- **Absence of Systematic Mechanism:**
  - **An inbuilt mechanism to ensure periodical de-thick-skinning** through re-inculcation of sense of purpose and motivation is also needed. Excessive security breeds insensitivity and lack of concern.
  - In a very short span of time, strugglers of yesterday filled with idealism become a part of the 'establishment' today.
  - To avoid this, periodically holding experience-based and practical-knowledge centric innovative examinations may help.

## What are the Related Initiatives?

- **Mission Karmayogi:**
  - This is a National Programme for Civil Services Capacity Building (NPCSCB). It is a comprehensive reform of the capacity building apparatus at individual, institutional and process levels for efficient public service delivery.
- **Lateral Entry Reform:**
  - **Lateral entry** means when personnel from the private sector are selected to an administrative post of the government despite them not being selected in or being part of a bureaucratic setup.
  - This is significant because contemporary times require highly skilled and motivated individuals at the helm of administrative affairs, without which public service delivery mechanisms do not work smoothly.
- **e-Samiksha:**
  - A **real time online system for monitoring and follow up action** on the decisions taken by the Government at the Apex level in respect of implementation of important Government programmes/projects.
- **Citizen Charters:**
  - Government has mandated **Citizen Charters** for all Ministries/Departments which are

updated and reviewed on a regular basis.

▪ **National Conference on e-Governance:**

- It provides a **platform for the government to engage with experts, intellectuals** from industry and academic institutions to exchange experiences relating to e-Governance initiatives.

▪ **Centralized Public Grievance Redress and Monitoring System (CPGRAMS):**

- It is an **online web-enabled system** developed by National Informatics Centre (Ministry of Electronics & IT [MeitY]), in association with Directorate of Public Grievances (DPG) and Department of Administrative Reforms and Public Grievances (DARPG).
- The **CPGRAMS** provides the facility to lodge a grievance online from any geographical location. It enables the citizen to track online the grievance being followed up with Departments concerned and also enables DARPG to monitor the grievance.

▪ **National e-Governance Service Delivery Assessment:**

- It aims at assessing the States, UTs and Central Ministries on the efficiency of e-Governance service delivery.

## Way Forward

▪ **Focus on External Accountability Mechanisms:**

- Reforms are an obvious response to the new challenges confronting the state institution managing public affairs; what lies at the root of such an exercise is the effort to enhance administrative capability in the changed scenario.
- Since the civil servants are accountable to political executives and that results in politicisation of civil services, the focus must be on external accountability mechanisms like citizen charters, social audits and encouraging outcome orientation among civil servants.

▪ **Bridging Governance Gap:**

- Everywhere around the world, **government capacity tends to lag socio-economic development.**
- This governance gap is acute in India and is growing wider. Bridging it requires talent in adequate numbers, with appropriate training and incentives.
- For India@100 to be a success story, the Indian state must do its job well. Nitipath is the way to go.

## UPSC Civil Services Examination, Previous Year's Question (PYQs)

**Q.** "Institutional quality is a crucial driver of economic performance". In this context suggest reforms in the Civil Service for strengthening democracy. **(2020)**

**Source:** [Livemint](https://www.livemint.com)

## Third Consecutive La Nina Event

**For Prelims:** La Niña, El Nino, El Nino-Southern Oscillation (ENSO), India Meteorological India (IMD).

**For Mains:** Impacts of El Nino and La Nina on India.

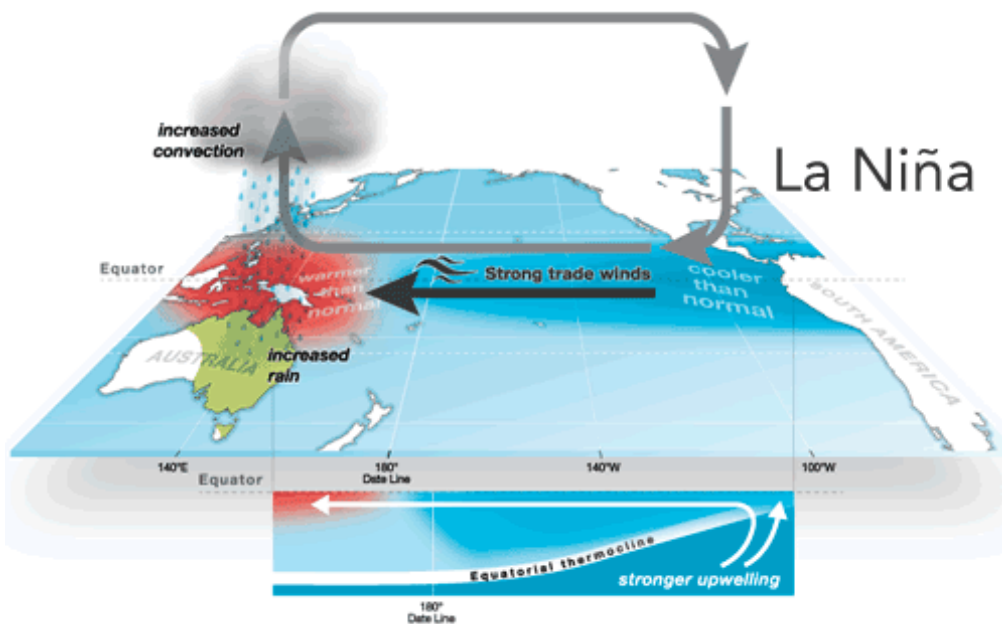
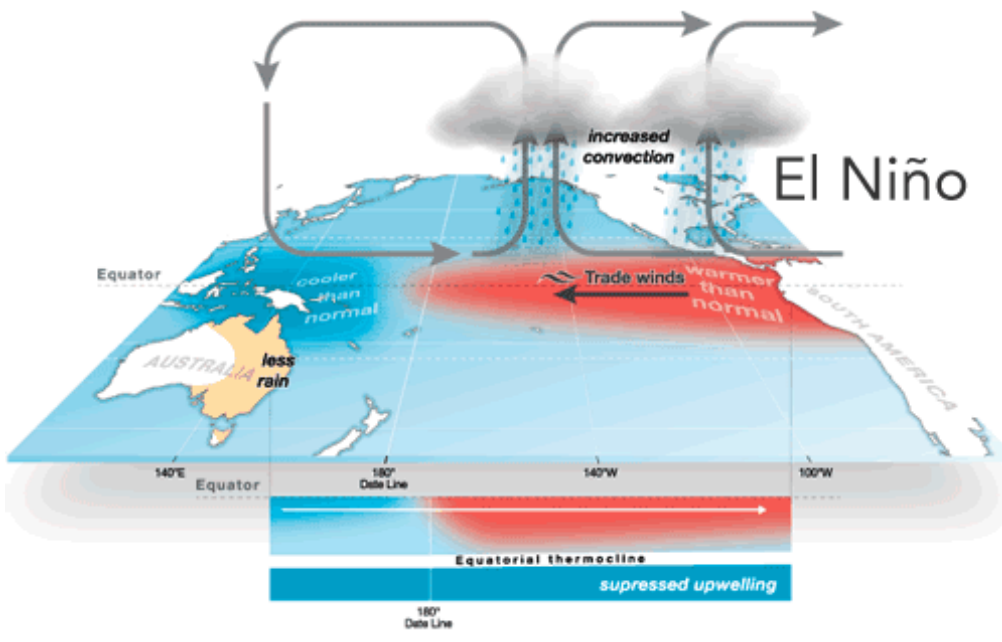
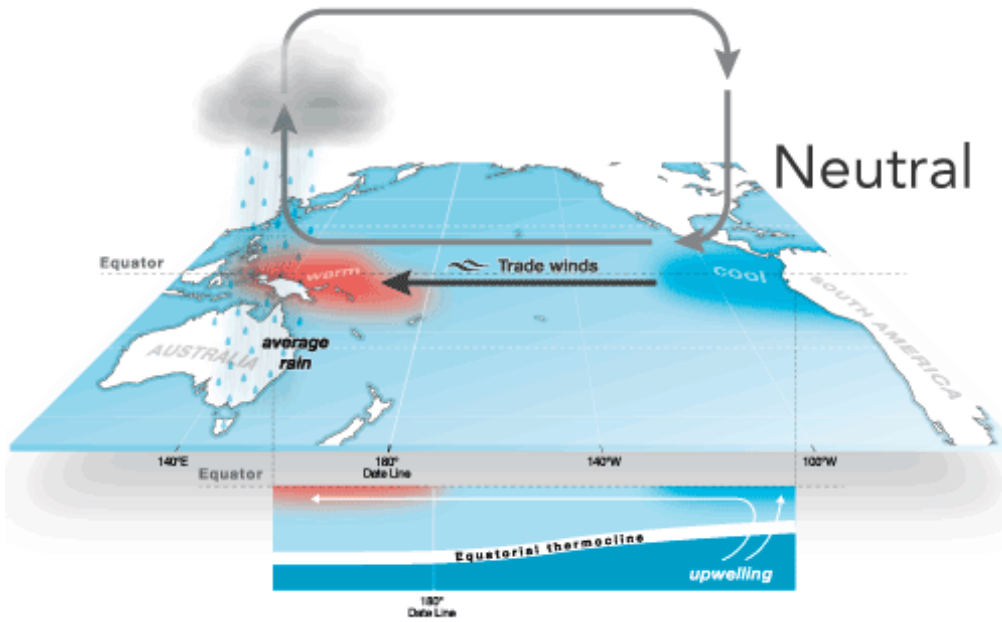
## Why in News?

Recently, **Australia's Bureau of Meteorology (BOM)** predicted, that a third consecutive event of La Nina could be underway which could lead to unusual weather effects in various countries.

- There is an **extended period of La Nina in 2022**. It is the **first time that this has happened since the 1950s** when the event started to be recorded. The years 1973-76 and 1998-2001 were consecutive La Nina years.

## What is La Nina and El Nino?





### ▪ Normal Condition:

- In the neutral state (neither El Niño nor La Niña) **trade winds blow east to west across the surface of the tropical Pacific Ocean, bringing warm moist air and warmer surface waters towards the western Pacific** and keeping the central Pacific Ocean relatively cool.
  - Warm sea surface temperatures in the western Pacific pump heat and moisture into the atmosphere above.
  - In a process known as **atmospheric convection**, this **warm air rises high into the atmosphere and, if the air is moist enough, causes towering cumulonimbus clouds and rain.**
    - The pattern of **air rising in the west and falling in the east with westward moving air at the surface is referred to as the Walker Circulation.**

### ▪ La Nina:

- La Nina means the **Little Girl in Spanish. It is also sometimes called El Viejo, anti-El Niño, or simply "a cold event."**
- La Nina events represent periods of **below-average sea surface temperatures** across the **east-central Equatorial Pacific.**
  - It is indicated by **sea-surface temperature decreased by more than 0.9°F for at least five successive three-month seasons.**
- La Nina event is observed when the **water temperature in the Eastern Pacific gets comparatively colder than normal**, as a consequence of which, there is a **strong high pressure over the eastern equatorial Pacific.**
- **Impacts:**
  - **Europe:** In Europe, El Niño reduces the number of autumnal hurricanes.
    - La Nina tends to lead to **milder winters in Northern Europe** (especially UK) and colder **winters in southern/western Europe** leading to snow in the Mediterranean region.
  - **North America:** It is continental North America where most of these conditions are felt. The wider effects include:
    - **Stronger winds along the equatorial region**, especially in the Pacific.
    - **Favourable conditions for hurricanes** in the Caribbean and central Atlantic area.
    - **Greater instances of tornados** in various states of the US.
    - **South America:** La Nina causes **drought in the** South American countries of **Peru and Ecuador.**
      - It usually has a **positive impact on the fishing industry** of western South America.
  - **Western Pacific:** In the western Pacific, La Nina increases the **potential for landfall** in those areas most vulnerable to their effects, and especially into **continental Asia and China.**
    - It also leads to **heavy floods in Australia.**
    - There are **increased temperatures** in Western Pacific, Indian Ocean and off the Somalian coast.

### ▪ EL Niño:

- **El Niño** is a climate pattern that describes the **unusual warming of surface waters** in the **eastern tropical Pacific Ocean.**
  - It is the "warm phase" of a larger phenomenon called the **El Niño-Southern Oscillation (ENSO).**
  - It occurs more frequently than La Nina.
- **Impacts:**
  - **Impact on Ocean:** El Niño also impacts ocean temperatures, the speed and strength of ocean currents, the health of coastal fisheries, and local weather from Australia to South America and beyond.
  - **Increased Rainfall:** Convection above warmer surface waters brings increased precipitation.
    - Rainfall increases drastically in South America, contributing to coastal

flooding and erosion.

- **Diseases caused by Floods and Droughts:** Diseases thrive in communities devastated by natural hazards such as flood or drought.
  - El Nino-related flooding is associated with increases in cholera, dengue, and malaria in some parts of the world, while drought can lead to wildfires that create respiratory problems.
- **Positive impact:** It can sometimes have a positive impact too, for example, El Nino reduces the instances of hurricanes in the Atlantic.
- **In South America:** As El Nino brings rain to South America, it brings droughts to Indonesia and Australia.
  - These droughts threaten the region's water supplies, as reservoirs dry and rivers carry less water. Agriculture, which depends on water for irrigation, is also threatened.
- **In Western Pacific:** These winds **push warm surface water** towards the western Pacific, where it borders **Asia and Australia**.
  - Due to the warm trade winds, the sea surface is normally about **0.5 meter higher and 4-5° F warmer in Indonesia than Ecuador**.
  - The westward movement of warmer waters causes **cooler waters to rise up** towards the surface on the coasts of **Ecuador, Peru, and Chile**. This process is known as **upwelling**.
    - Upwelling elevates cold, nutrient-rich water to the euphotic zone, the upper layer of the ocean.
- **El Nino-Southern Oscillation (ENSO):**
  - The **combined phases of La Nina and El Nino** are termed **El Nino-Southern Oscillation (ENSO)** and affect rainfall patterns, global atmospheric circulation, and atmospheric pressure across the planet.

## What will be the Impacts of Third Consecutive La Nina?

- The [India Meteorological India \(IMD\)](#) has stated in its report that La Nina conditions currently prevail over the equatorial Pacific Ocean.
- **Impacts on India:**
  - **Extreme weather:**
    - The India Meteorological India (IMD) has predicted that **some parts of India may witness heavy rains**.
    - The Western Ghats may receive average or below-average rain.
    - Winter rainfall is less than normal in North India.
    - Snowfall over Western Himalayas is less than normal.
    - Winter temperatures in the plains are less than normal.
    - Prolonged Winter Season over North India (extended winters).
    - More rain during the second half of the Northeast Monsoon.
  - **Negative Impact on Agriculture:**
    - Farmers will be at risk of **losing their standing Kharif crops** if it rains during this period.
      - As the **harvesting of the Kharif crops begins in September-end or early October** and any rain just before that would prove detrimental to the standing crops.
    - Farmers will suffer a double whammy if untimely rains coincide with the harvest.

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

### Prelims

**Q. With reference to 'Indian Ocean Dipole (IOD)' sometimes mentioned in the news while forecasting Indian monsoon, which of the following statements is/are correct? (2017)**

1. IOD phenomenon is characterised by a difference in sea surface temperature between tropical Western Indian Ocean and tropical Eastern Pacific Ocean.
2. An IOD phenomenon can influence an El Nino's impact on the monsoon.



Select the correct answer using the code given below:

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

Ans: (b)

Exp:

- **The Indian Ocean Dipole (IOD) is an atmosphereocean coupled phenomenon in the tropical Indian Ocean (like the El Nino is in the tropical Pacific), characterised by a difference in Sea-Surface Temperatures (SST).**
- A 'positive IOD' is associated with cooler than normal sea-surface temperatures in the eastern equatorial Indian Ocean and warmer than normal sea-surface temperatures in the western tropical Indian Ocean.
- The opposite phenomenon is called a 'negative IOD' and is characterized by warmer than normal SSTs in the eastern equatorial Indian Ocean and cooler than normal SSTs in the western tropical Indian Ocean.
- Also known as the Indian Nino, it is an irregular oscillation of sea-surface temperatures in the Indian Ocean in which the western Indian Ocean becomes alternately warmer and colder than the eastern part of the Indian Ocean. **Hence, statement 1 is not correct.**

## **Mains**

**Q.** Drought has been recognized as a disaster in view of its spatial expanse, temporal duration, slow onset and lasting effects on vulnerable sections. With a focus on the September 2010 guidelines from the National Disaster Management Authority (NDMA), discuss the mechanisms for preparedness to deal with likely El Nino and La Nina fallouts in India **(2014)**

**Source:** [DTE](#)

## **Indian Telegraph Right of Way -Amendment Rules, 2022**

**For Prelims:** 5G, Fiberisation, Related Government Initiatives, Digital India mission and BharatNet project, Digital Divide.

**For Mains:** Indian Telegraph Right of Way -Amendment Rules, 2022.

### **Why in News?**

In a bid to expedite the rollout of [5G networks](#) in the country, the Ministry of Communications announced amendments to the [Right of Way \(RoW\)](#).

### **What are the Amendments?**

- The amendments include **rationalisation of charges, introduction of a single window clearance system** and doing away with the need for consent from a government authority for installing infrastructure over private property.
- Telecom licensees **can enter into agreement with private property owners and will not require any permission from any government** authority for installing telecom infrastructure such as towers, poles or optical fibre.
- **No administrative fee shall be charged** by the Central government for the establishment of poles on land owned/controlled by it.
  - **For State/UTs, this fee will be limited to Rs 1,000 per pole.** The fee for laying overground optical fibre shall be limited to Rs 1,000/ Km.
- Telecom companies will need to submit **details of the building or structure, where the establishment of a mobile tower or pole is proposed**, and a copy of certification by a structural engineer, authorised by the appropriate authority, attesting to the structural safety of the building or structure, where the mobile tower or pole is proposed to be established.
- The amendments provide for **a single window clearance system for RoW applications.**
- **Gati Shakti Sanchar Portal** of the Ministry of Communications will be the single window portal for all telecom related RoW applications.
- The telecom licences will be able to use street infrastructure to deploy telecom equipment at a nominal cost of Rs 150 annually in rural areas and Rs 300 annually in urban areas.

### Why are these Amendments Announced?

- The Amendments are announced to expedite **upgradation and expansion of telecom networks** and to **pave the way for the deployment of 5G small cells on existing street infrastructure.**
- The current infrastructure may be able to sustain the rollout of services. However, experts say **at least 70 % of the telecom towers need to be fiberized from the current level of 33 %** to roll out 5G in a way that utilises its full potential.
  - **Fiberization** is essential for 5G due to the **increasing data consumption and growth in India compared to the 2G and 3G wireless** technologies, which work on a shared network and have a limited capacity to handle an increase in load.
- Access to the existing infrastructure, deployment of new infrastructure, and the high cost involved in it **were major challenges the telecom sector always came across** which will now be eased down.

### What is the Significance of the Move?

- The telecom industry is giving equal importance to rural areas and urban areas, it is predicted that the **5G services will reach almost all parts of the country** in the next 2-3 years.
- The Amendment will ensure the **speedy roll-out of the technology** and make the dream of **5G enable India** to come true.
- The **digital divide** between rural-urban and rich-poor will be bridged, in line with the **Digital India mission** and **BharatNet project.**
- **E-governance** and financial inclusion will be strengthened.
- **Doing business** will be easy.
- **Information and communication** needs of citizens and enterprises will be fulfilled (including **5G**).
- The dream of India's transition to a **digitally empowered economy** and society will be translated into reality.

[Source: TH](#)

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## Forests and Jurisdictions

**For Prelims:** Forests and Jurisdictions, T.N. Godavarman Thirumulkpad vs the Union of India judgment, 42<sup>nd</sup> Amendment Act, 1976, Fundamental Duty, Forest Conservation Act, 1980, Directive Principles of State policy.

**For Mains:** Forests and Related Laws.

## Why in News?

Recently, the **Ministry of Environment, Forest and Climate Change** has objected to Chhattisgarh for its transfer of land without following due process from its Forest to the Revenue Department.

## What is the Background?

- In March 2022, Chhattisgarh Chief Minister announced in his Budget speech that the state government has transferred over 300 sq km — an area larger than Raipur — in the Bastar region from the Forest department to the Revenue department to ensure easy availability of land for setting up industries and building infrastructure.
- In August 2022, the Union Environment Ministry's Integrated Regional Office asked the state to stop the transfer of land, saying it was in violation of the **Forest Conservation Act, 1980** and multiple Supreme Court orders, and return the land already transferred.
- The move has now run into a hurdle, even as paperwork is underway for transferring more land to other parts of the state.

## What is a Forest?

- **About:**
  - At present, in India, there is **no clear nationally-accepted definition of 'forest'**.
  - States are **responsible for determining** their definition of forests.
  - The prerogative of the states to define forests stems from a 1996 Supreme Court order called the **T.N. Godavarman Thirumulkpad vs the Union of India judgment**.
    - In the judgement, the Supreme Court **interpreted that the word "forest"** must be understood according to its "dictionary meaning".
    - This description **covers all statutorily recognised forests**, whether designated as reserved, protected or otherwise.
- **Jurisdiction:**
  - Forests are included in the **Concurrent List in the (Seventh Schedule)** of the Constitution of India.
  - Through the [42<sup>nd</sup> Amendment Act, 1976](#) Forests and Protection of Wild Animals and Birds were transferred from **State to Concurrent List**.
  - State Forest Departments have jurisdiction over two types of forests notified under the **Indian Forest (IF) Act, 1927: Reserve Forests (RF)**, where no rights are allowed unless specified, and **Protected Forests (PF)**, where no rights are barred unless specified. Certain forests, such as villages or nagarpalika forests, are managed by state **Revenue Departments**.
- **Legislations:**
  - **Article 51 A (g)** of the Constitution states that it shall be the **fundamental duty** of every citizen to protect and improve the natural environment including forests and Wildlife.
  - **Article 48 A** in the **Directive Principles of State policy**, mandates that the State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country.

## What is Forest Clearance?

- The **Forest Conservation Act, 1980**, applies to all kinds of forests, whether under the control of the Forest or the Revenue Department, and **it requires statutory clearance before forests**

can be used for any non-forest purpose such as industry, mining, or construction.

- Another type of Clearance is Environment Clearance, which is a long-drawn process that is **mandatory for projects beyond a certain size and often involves an environment impact assessment** of a potential project and sometimes public hearings involving the local populace who might be affected by the project.

## What is Undemarcated Protected Forest?

- **Undemarcated Protected Forests** are also called the Orange areas, they are the result of an **administrative logjam that remained a bone of contention** between the Revenue and the Forest departments since the abolition of the zamindari system in 1951.
- Undemarcated protected forests cannot be used for **non-forest purposes without clearance** under the **Forest Conservation (FC) Act, 1980**.

## What are the Policies Governing India's Forests?

- [Indian Forest Policy, 1952](#)
- [Forest Conservation Act, 1980](#)
- **National Forest Policy, 1988**
- [National Afforestation Programme](#)
- [Wildlife Protection Act of 1972](#)
- [Environment Protection Act of 1986](#)
- [Biodiversity Diversity Act of 2002](#)
- [Scheduled Tribes and Other Traditional Forest Dwellers \(Recognition of Forest Rights\) Act, 2006](#)

## UPSC Civil Services Examination, Previous Year's Question (PYQs)

### Prelims

#### Q. Consider the following statements: (2019)

1. As per recent amendment to the Indian Forest Act, 1927, forest dwellers have the right to fell the bamboos grown on forest areas.
2. As per the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, bamboo is a minor forest produce.
3. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 allows ownership of minor forest produce to forest dwellers.

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

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

**Ans: (b)**

**Exp:**

- The Indian Forest (Amendment) Bill 2017 permits felling and transit of bamboo grown in non-forest areas. However, bamboo grown on forest lands would continue to be classified as a tree and would be guided by the existing legal restrictions. **Hence, statement 1 is not correct.**
- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, recognises bamboo as a Minor Forest Produce and vests the "right of ownership, access to collect, use and dispose of minor forest produce" with Scheduled Tribes and Traditional Forest Dwellers. **Hence, statements 2 and 3 are correct.**
- **Therefore, option (b) is the correct answer.**

## **Mains**

**Q.** What are the consequences of Illegal mining? Discuss the Ministry of Environment and Forests' concept of GO AND NO GO zones for coal mining sector. **(2013)**

**Q.** Examine the status of forest resources of India and its resultant impact on climate change. **(2020)**

**Source: IE**

## **National Forensic Science University**

**For Prelims:** Forensic Science, National Forensic Science University

**For Mains:** Forensic Science, National Forensic Science University, Regulations of Forensic Science, Background of Forensic Science in India

### **Why in the News?**

Recently, the Union Home and Cooperation Minister addressed the First convocation of **National Forensic Science University (NFSU)**.

### **What do we need to know about National Forensic Science University (NFSU)?**

#### ▪ **About:**

- It was established by the Government of India in 2020 with the objective of **fulfilling the acute shortage against the increasing demand for forensic experts in the country and around the world.**
- The National Forensic Sciences University, with the status of an **Institution of National Importance**, is the **world's first and only University** dedicated to **Forensic, behavioral, [cybersecurity](#), digital forensics, and allied Sciences.**
- Apart from Gujarat, its campuses have been opened in Bhopal, Goa, Tripura, Manipur and Guwahati

#### ▪ **Vision:**

- To fulfill the **acute shortage of Forensic Experts** in the Country and the World.
- To make the **World a Better and Safer place** to live.
- To carry out **Research in the area of Forensic Science, Crime Investigation, Security, Behavioral Science and Criminology.**

#### ▪ **Mission:**

- Education through **Investigation.**
- To impart **High-Quality Education** of International Standards.

#### ▪ **New Centres of Excellence:**

- **A new campus and three Centres of Excellence have been added in the University:**
  - The Centre of Excellence in **DNA.**
  - The Centre of Excellence in **Cyber Security.**
  - The Centre of Excellence in **Investigative and Forensic Psychology.**

# What is Forensic Science?

## ▪ About:

- Forensic science is the **use of scientific methods or expertise** to investigate **crimes or examine evidence** that might be presented in a court of law.
- Forensic science comprises a **diverse array of disciplines**, from **fingerprint** and **DNA analysis** to **anthropology and wildlife forensics**.
- Forensic science is a critical element of the **criminal justice system**.
  - Forensic scientists **examine and analyze evidence** from crime scenes and elsewhere to develop **objective findings that can assist in the investigation** and prosecution of perpetrators of crime or absolve an innocent person from suspicion.

## ▪ Forensic Science in India:

- The first **Central Fingerprint Bureau of India** was established in Kolkata in India in the year 1897 which became functional in 1904.
- An advanced **Centre for DNA Fingerprinting and Diagnostics (CDFD)** has been established in Hyderabad under the **Department of Biotechnology**.
- The DNA Profiling in criminal cases such as **homicide, suicide, sexual assaults, terrorists' activities, wildlife forensics**, and other crime cases is now continuing in various Police departments, Forensic institutions, Wildlife departments for Human and Animal identification from the biological fluids and the tissue materials.
- India has **over 80 universities and colleges** including **National Forensic Science University** at Gandhinagar, Gujarat, and **Rashtriya Raksha University** at Lavad, Gandhinagar where the **School of Forensic Science & Risk Management** is also imparting teaching, research, and training to the students, Police and Paramilitary forces for security purposes.

## ▪ Problems with Forensic Science in India:

- **Erroneous Convictions:**
  - The most alarming issues in Forensic Science are the **erroneous convictions based on faulty forensic evidence**.
  - Nearly 318 convicts were released from jail based upon DNA tests who were earlier wrongly convicted on the basis of faulty forensic evidence.
- Lack of scientific certainty
- Lack of research
- Lack of well-defined code of ethics
- Lack of certification of the experts
- Non-available databases and non-availability of error rate statistics for all the techniques

## ▪ Acts:

- **The Himachal Pradesh Police Act, 2007:**
  - The act authorizes the **Director Forensic Science** to suggest the **State Police board** and the **state government** for the **Forensic facilities to be created** in the state for scientific investigation.
  - It also states that the **state will provide necessary financial assistance for the same within 6 months**, in the event of inability the reasons have to be recorded in writing.
  - The act also made it mandatory for the investigatory agencies to **collect forensic evidence in crime cases** and to send the same for forensic examination.
  - The Director General of Police in consultation with Director Forensic Science **will create facilities for scientific interrogation, investigation, and the necessary equipment**.
- **The National Forensic Science University and Rashtriya Raksha University Acts - 2020:**
  - In September 2020, Government of India, passed two Acts:
    - **The National Forensic Science University (NFSU) Act 2020**
      - NFSU was created at Gandhinagar in Gujarat State.
    - **Rashtriya Raksha University (RRU) Act 2020**
      - RRU has been created and established at Lavad, Dahegam, Gandhinagar, Gujarat State.
      - The mandate of Rashtriya Raksha University is to **promote and**

**provide global standards of learning and research** in policing, law enforcement, security, cyber security, artificial intelligence, and risk management.

## Way Forward

- There is an **urgent need for capacity building** of Forensics in India if early effective justice is to be provided to the common man in the country.
- The **quality of forensic reports is completely dependent** upon what types of samples are sent by the investigating officers for testing in the laboratories.
  - Thus, **forensic training for the investigating officers should be made mandatory.**
- There should be **homogenous technology and expertise in different testing Forensic Laboratories** in India so that the report quality does not suffer for want of expertise and the latest technology.

[Source: PIB](#)

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## National Sports Day 2022

### Why in News?

The National Sports Day or Rashtriya Khel Divas is celebrated on **29<sup>th</sup> August every year** in India as a tribute to hockey legend **Major Dhyan Chand** who was born on this date in 1905.

### What are the Key Points?

- **About:**
  - The day was first designated and celebrated in 2012 as India's National Sports Day.
  - The nation celebrates the day honouring our sports stars.
  - The president gives away sports awards such as the [Major Dhyan Chand Khel Ratna Award](#), [Arjuna Award](#), [Dronacharya Award](#), and [Dhyan Chand Awards](#) on this occasion.
- **Significance:**
  - The primary motto of National Sports Day is **to promote awareness about the significance of sports** and being physically active in day-to-day life.
  - The Government of India organises various programs, events, seminars etc to raise awareness about the significance of National Sports Day.

### Who was Major Dhyan Chand?

- Widely known as the '**Wizard of Hockey**', the greatest hockey player of India, Major Dhyan Chand Singh, was born on 29<sup>th</sup> August 1905 in present-day Prayagraj, Uttar Pradesh.
- He played as the centre forward at three Olympic Games for India winning Gold Medals at Amsterdam in 1928, Los Angeles in 1932 and **Berlin in 1936 where he was the captain.**
- He was a member of the first Indian overseas army team that toured New Zealand in 1926.
- Major Dhyan Chand scored more than 400 international goals in his career from 1926 to 1948 while scoring nearly 1,000 goals in his entire career.
- In a bid to pay tribute to such a legendary player, the Government of India decided to celebrate his birthday as the National Sports Day in 2012.
- Before this recognition, he was **awarded the Padma Bhushan Award by the Government of India in 1956**, the third-largest civilian honour in India.
- He breathed his last on 3<sup>rd</sup> December, 1979, in Delhi having slipped into a coma.

## UPSC Civil Services Examination, Previous Year's Question (PYQs)

**Q. Consider the following statements in respect of the Laureus World Sports Award which was instituted in the year 2000: (2021)**

1. American golfer Tiger Woods was the first winner of this award.
2. The award was received mostly by 'Formula One' players so far.
3. Roger Federer received this award maximum number of times compared to others.

**Which of the above statements are correct?**

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

**Ans: (c)**

**Exp:**

- The Laureus World Sports Awards is the premier global sporting awards. First held in 2000, the annual event honours the greatest and most inspirational sporting triumphs of the year and showcases the work of Laureus Sport for Good.
- American golfer Tiger Woods was the first winner of this award. Hence, statement 1 is correct.
- The award has been received mostly by Men's Football Team (6 times) players so far. **Hence, statement 2 is not correct.**
- Roger Federer (5 times) has received this award, the maximum number of times compared to others followed by Usain Bolt (4 times) and Novak Djokovic (4 times). **Hence, statement 3 is correct.**
- **Therefore, option (c) is the correct answer.**

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**Q. Consider the following statements in respect of the 32<sup>nd</sup> Summer Olympics:**

1. The official motto for this Olympics is 'A New World'.
2. Sport Climbing, Surfing, Skateboarding, Karate and Baseball are included in this Olympics.

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

- (a) 1 only  
b2 only  
(c) Both 1 and 2  
(d) Neither 1 nor 2

**Ans: (b)**

**Exp:**

- The Games of the 32nd Summer Olympiad (Tokyo 2020) were held from 23 July to 8 August 2021. The Olympics have been held every four years since 1948. However, Tokyo Olympic 2020 was not held after four years as it was postponed for 2021, because of Covid pandemic.
- The official motto for Olympics 2020 was **"United by Emotion"**. The motto emphasised the power of sport to bring together people from diverse backgrounds of every kind and allow them to connect and celebrate in a way that reaches beyond their differences. **Hence, statement 1 is not correct.**
- A total of 46 Olympic Sports were contested at the Tokyo 2020 Games including Rugby, Sport Climbing, Fencing, Football, Skateboarding, **Handball, Surfing, Karate, Baseball, among others.** Hence, statement 2 is correct.
- **Therefore, option (b) is the correct answer.**



[Source: PIB](#)

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## Exercise VAJRA PRAHAR 2022

### Why in News?

Recently, **India - USA Joint Special Forces** conducted the 13th edition of exercise [Vajra Prahar 2022](#) **culminated at Bakloh (Himachal Pradesh).**

### What are the Key Highlights?

- **About:**
  - It's an annual exercise is hosted alternatively between Special Forces **India and the United States.**
    - Special Forces are the units of a country's armed forces that undertake covert, counterterrorist, and other specialized operations.
- **Aim:**
  - The 21-day joint training **provided an opportunity for the Special Forces from both nations to train in Air Borne Operations, Special Operations and Counter Terrorism operations** in a joint environment under United Nations Charter.
  - **It was conducted in two phases;**
    - The first phase involved **combat conditioning and tactical level special missions training exercises,**
    - The second phase **included 48 hours of validation of training received by both contingents in the first phase.**
- **Significance:**
  - Exercise VAJRA PRAHAR with the US Special Forces is significant in terms of **security challenges faced by both Nations in the backdrop of the current global situation.**
  - The joint military exercise has further **strengthened the traditional bond of friendship between the special forces of both Nations** as well as improved bilateral defence cooperation between India and the USA.

### What are Other Exercises between India and the USA?

- [Exercise Tiger Triumph](#) (Humanitarian Assistance and Disaster Relief exercise)
- **Cope India** (Air Force).
- [Malabar Exercise](#) (Quadilateral naval exercise of India, USA, Japan and Australia).
- [Red Flag](#) (US' multilateral air exercise).

[Source: PIB](#)

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