Dr S Radhakrishnan

DR S RADHAKRISHNAN
(05-09-1888 - 17-04-1975)

5th September: Teachers Day; A Tribute to his contributions to Education and Philosophy.

Contribution Towards Indian Education

- 4th Vice-Chancellor of Banaras Hindu University (1939-1948)
- Elected as the Chairman of UNESCO's executive board (1948)
- Chairman of University Education Commission (1949)

At National and Global Level

- Ambassador of India to the USSR (1949-1952)
- First Vice-President of India (1952-1962)
- Second President of India (1962-1967)

Awards and Recognition

- Knighthood in 1931
- Bharat Ratna in 1954
- Honorary membership of **British Royal Order of Merit** in 1963
- Templeton Prize in 1975 (for vital contributions in bridging the understanding between cultures and religions of the Eastern and Western hemispheres)

Notable Works

- Indian Philosophy (1923-27)
- The Philosophy of the Upanishads (1924)
- Eastern Religions and Western Thought (1939)

Drishti IAS

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Peace Pact in Tripura

For Prelims: Tripura and Other **North Eastern states of India**, **Key Agreements in North East India**, **Armed Forces Special Powers Act**, National Liberation Front of Tripura (NLFT), All Tripura Tiger Force (ATTF).

For Mains: Key Peace Developments Initiatives in North East India, Challenges in Establishing Peace in North-Eastern State of India, **Significance of North East India, Role of Bordering Countries in Peace Development in North-Eastern States**

Why in News?

Recently, the **Central Government, the state government of Tripura**, and two major **insurgent groups** namely the **National Liberation Front of Tripura (NLFT)** and the **All Tripura Tiger Force (ATTF)** signed a **peace agreement** to **end violence in the state.**

- This agreement will end a 35-year-long conflict in the state, renouncing violence and committing to build a prosperous and developed Tripura.

What are the Key Highlights of Peace Agreement?

- **Reintegration of Armed Cadres:** Over 328 armed cadres from NLFT and ATTF will **surrender and reintegrate into society.**
- **Financial Package:** A special financial package of **Rs 250 crore** has been approved for the **development of Tripura's tribal population.**
- **Broader Initiative:** This is part of a larger effort, with **12 significant agreements signed** in the Northeast between 2014 and 2024, including 3 related to Tripura.

NLTF and ATTF

- **National Liberation Front of Tripura (NLFT)** was formed in 1989.
  - The purported objective of the NLFT is to establish an **'independent' Tripura through an armed struggle** following the liberation from **'Indian neo- colonialism and imperialism'** and furtherance of a 'distinct and independent identity'.
  - There were multiple splits within the NLFT due to personal ambitions of leaders and parochial religious considerations.
  - It was outlawed in April 1997 under the **Unlawful Activities (Prevention) Act, 1967**, and is also proscribed under the **Prevention of Terrorism Act (POTA), 2002.**
  - The NLFT split into two groups in February 2001, one headed by **Biswamohan Debbarma and the other by Nayanbasi Jamatiya.**
- **Tripura Tiger Force (ATTF)** was founded in 1990.
  - It demands removal of illegal migrants from electoral rolls and implementation of the 1949 Tripura Merger Agreement.
  - It operated in **North and South Tripura districts** and emerged as a formidable terrorist group by 1991.
  - It was banned in April 1997 under the Unlawful Activities (Prevention) Act, 1967.

What is the Significance of the Peace Pact Between the Government And Insurgent Groups in Tripura?

- **Restoration of Peace and Stability**:The armed groups pledging to end violence, is a key step toward peace and stability in Tripura, aiming to break the violence cycle and foster a safer environment for development.
- **Mainstream Integration:** The agreement facilitates the integration of former insurgents into mainstream society, addressing issues of alienation and disenfranchisement among tribal communities. It provides an opportunity for these individuals to positively contribute to society.
- **Development Initiatives:** The Central Government has approved a special development package **for the tribal population in Tripura**. This financial commitment highlights the government's focus on socio-economic development as a strategy to prevent future conflicts.
- **Cultural Preservation:** The pact supports the preservation of the cultural heritage, languages, and identities of Northeast tribal groups. This is crucial for fostering a strong sense of belonging

and community among these populations.

What are the Reasons for Insurgency in North East India Including Tripura?

- **Inter-Tribal Conflicts**: Changes in the religious composition of tribal groups, particularly the Jamatiyas, fueled newer inter-tribal tensions, compounding existing tribal-non-tribal conflicts.
- **Demographic Changes**: The mass **migration from East Pakistan (now Bangladesh)** post-1947 altered Tripura's demographic profile, turning a predominantly tribal region into one **dominated by Bengali-speaking plainsmen**. This demographic inversion fueled **discontent among the indigenous tribes.**
- **Proximity to Mizoram Insurgency**: Tripura's geographical proximity to Mizoram exposed the state to the **"side effects" of the insurgency** there, further exacerbating local tensions.
- **Formation of Insurgent Groups**: Discontent over land and demographic changes led to the formation of **insurgent groups** like the **Tripura Upajati Juba Samiti (TUJS)** in 1971, the **Tripura National Volunteers (TNV)** in 1981, and the **National Liberation Front of Tripura (NLFT)** in 1989, which intensified the insurgency.
- **Economic Factors:** The lack of development and limited economic opportunities in Northeast India, especially for the youth, has led to widespread poverty and unemployment which has led to recruitment by insurgent groups, offering a means of livelihood and social status.
- **Geographical Factors:** The north-eastern region including tripura shares **98% of its borders** with other countries, highlighting **weak geographical links with the rest of India.**
  - The north-eastern region's population is only 3% of the national total, it **grew by over 200%** from 1951 to 2001, **straining livelihoods and land resources**.
- **Loss of Tribal Lands**: Tribals were deprived of their **agricultural lands**, often sold at throw-away prices, and pushed into the forests, leading to widespread resentment and tensions. The deprivation of land became a major driver of insurgency.
- **Political Factors:** Northeast India **including tripura ethnic communities** sometimes feel neglected by the central government due to **geographic distance and limited political representation,** driving demands for **autonomy or independence to protect their cultural identity** and resources.

What are the Government Initiatives to Establish Peace in North East India Including Tripura?

- **Dialogues and Negotiation:** The government has negotiated and signed numerous peace accords with various insurgent groups, leading to the surrender of militants and the formation of autonomous councils. Example: the recent peace agreement signed between the government and insurgents groups **NLFT** and the **ATTF**.
- **Important Agreements:**
  - **Naga Peace Accord:** The ceasefire agreement between the Government of India and the National Socialist Council of Nagaland (K)/Niki group **has been extended for one year**, from September, 2024 to September, 2025 further advancing the **Naga Peace Accord**.
  - **Assam-Meghalaya Boundary Agreement, 2022:** Resolves disputes in 6 sectors, allocating 18.51 sq. km to Assam and 18.28 sq. km to Meghalaya.
  - **Karbi Anglong Agreement, 2021**
  - **Bodo Accord, 2020**
  - **Bru-Reang Agreement, 2020**
  - **NLFT-Tripura Agreement, 2019**
- **Development Initiatives:** The government has focused on infrastructure, economic, and skill development in the Northeast region with projects like the **Kaladan Multi-Modal Transit Project** and various railway and highway initiatives aimed at improving connectivity.
  - Economic schemes, including the **North East Industrial Development Scheme** and **Prime Minister's Development Initiative for North Eastern Region (PM-DevINE)** are designed to boost growth.
  - Additionally, efforts like the **North East Special Education Zone** and **Skill India Mission** are geared towards enhancing education and employment opportunities.
- **Cultural and Social Initiatives:** The government promotes regional languages and cultural festivals, and supports cultural centres to preserve heritage. Interstate

cooperation is enhanced through the Northeastern Council, joint development projects, and improved connectivity, with cultural exchange programs fostering mutual understanding.
- **Other Initiatives for the North East Development**
  - **Infrastructure:**
    - Bharatmala Pariyojana
    - Regional Connectivity Scheme (RCS)-UDAN
  - **Connectivity:**
    - India-Myanmar-Thailand Trilateral Highway
  - **Tourism:**
    - Swadesh Darshan Scheme
  - **Other:**
    - Digital North East Vision 2022
    - National Bamboo Mission

What are the Challenges to Peace Restoration in North-Eastern States Including Tripura?

- **Trust Building:** Establishing **trust between the government and former insurgents** is crucial. Historical grievances and mistrust may hinder cooperation and integration efforts.
- **Monitoring and Compliance: Ensuring compliance with the terms of the agreement,** including the disbandment of armed groups and the cessation of violence, will r**equire robust monitoring mechanisms.**
- **Socio-Economic Integration: Integrating former insurgents into the socio-economic fabric poses challenges, including providing adequate job opportunities, vocational training, and psychological support.**
- **Political Dynamics:** The **political landscape** in the north-eastern state including Tripura **is complex with various stakeholders involved**. Navigating these dynamics while ensuring **inclusive governance** will be critical for sustainable peace.
- **Continued Militancy:** Continued Militancy in the region remains a **risk of splinter groups** or other insurgent factions refusing to comply with the peace agreement, potentially leading to renewed violence and instability.

Way Forward

- **Effective Policing:** The absence of effective law enforcement has contributed to the rise of armed violence. Efficient policing, **supported by good governance and civil rights**, is essential to restore order and security.
  - For example, **community policing initiatives in Tripura** involving **local leaders** can build trust and improve safety.
- **Dialogue and Negotiation:** A peaceful resolution can only be achieved through **dialogue and negotiation** with the insurgent groups.
  - Tripura's government can sustain dialogue with **ethnic groups** and **establish a formal platform with civil society** to ensure all voices, especially marginalized ones, are heard.
- **Economic Development:** Investing in economic development and creating employment opportunities can address the root causes of insurgency by providing alternative livelihoods and reducing poverty.
  - Expanding initiatives like the **Tripura Bamboo Mission** and **improving infrastructure** can **create jobs, offer alternative livelihoods to youth**, and boost economic conditions in rural areas, reducing susceptibility to insurgency recruitment.
- **Political Representation:** Ensuring adequate political representation for the ethnic communities can help build trust and address their concerns.
  - **Including indigenous leaders in local governance**, as with **Tripura's Autonomous District Councils**, ensures community representation. Fair electoral processes and state assembly representation also empower communities and address disenfranchisement.
- **Cultural Preservation:** Respecting and promoting the **unique cultural heritage of the Northeast's ethnic communities** can foster a sense of belonging and reduce feelings of marginalisation.

- Promoting festivals like the **Kharchi Festival** and i**ntegrating local history and culture** into school curricula.

Conclusion

The recent peace pact in Tripura signifies a hopeful turn towards stability and development in the region. However, successful implementation will depend on addressing the underlying issues that have fueled insurgency for decades.
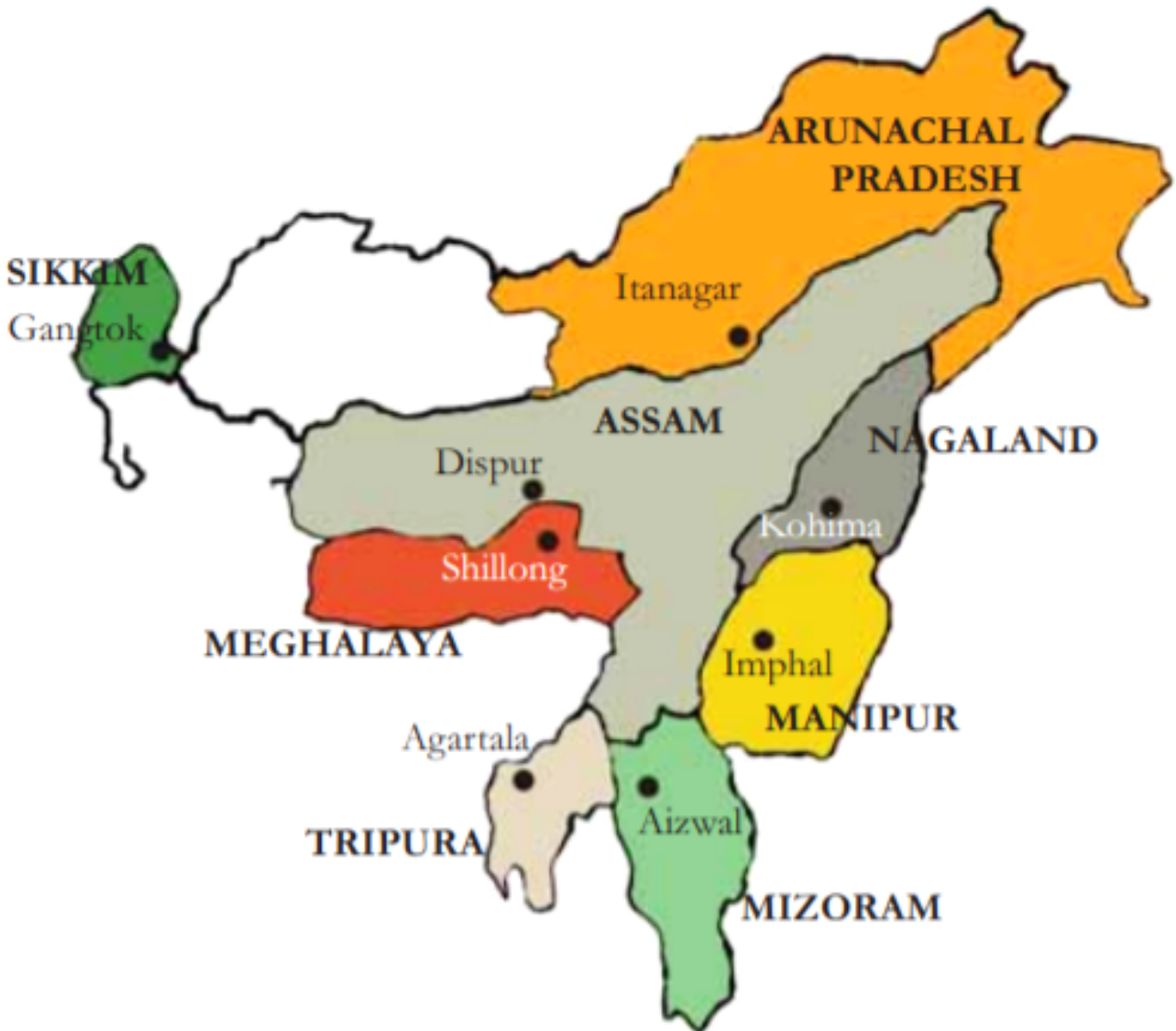
UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. Which Schedule of the Constitution of India contains special provisions for the administration and control of Scheduled Areas in several States? (2008)

(a) Third
(b) Fifth
(c) Seventh
(d) Ninth

Q1. Human rights activists constantly highlight the fact that the Armed forces (Special Powers) Act, 1958 (AFSPA) is a draconian act leading to cases of human rights abuses by security forces. What sections of AFSPA are opposed by the activists? Critically evaluate the requirement with reference to the view held by the Apex Court. **(2015)**

Q2. The North-East region of India has been infested with insurgency for a very long time. Analyse the major reasons for the survival of armed insurgency in this region. **(2017)**

West Bengal "Aprajita" Anti-Rape Bill

For Prelims: Rape Crimes, **Criminal Law (Amendment) Act 2013**, **Bharatiya Nyaya Sanhita (BNS) 2023,** the **Bhartiya Nagrik Suraksha Sanhita (BNSS) 2023**, and the **Protection of Children from Sexual Offenses Act 2012 (POCSO)**, **Supreme Court.**

For Mains: Rape Crimes, Related Challenges and Way Forward

Source: IE

Why in News?

The West Bengal Assembly has passed the **Aparajita Women and Child (West Bengal Criminal Laws Amendment) Bill, 2024** which aims to address issues of violence against women.

- It includes provisions for **capital punishment** and the **harshest penalties for rape and sexual harassment**.

What are the Key Provisions of the Aprajita Bill 2024?

- **Proposes Amendment to BNS 2023, BNSS 2023 and POCSO 2012 Act:** The proposed bill aims to amend several legal provisions, including those in the **Bharatiya Nyaya Sanhita (BNS) 2023**, the **Bhartiya Nagrik Suraksha Sanhita (BNSS) 2023**, and the **Protection of Children from Sexual Offences Act 2012 (POCSO)**. It is intended to apply to survivors and victims across all age groups.
- **Death Penalty for Rape:** The Bill proposes **capital punishment** for individuals convicted of rape if the act results in the victim's death or leaves her in a **vegetative state.**
  - Under **BNS Laws**, the penalties for rape are as follows: a fine and a minimum of **10 years imprisonment for rape**; a minimum of **20 years imprisonment for gang rape**, which may extend to life imprisonment; and a **minimum of 20 years of rigorous imprisonment for rape resulting in the victim's death or a vegetative state**, with the possibility of life imprisonment or the death penalty.
- **Time-Bound Investigations and Trials:** Investigations into rape cases are mandated to be **completed within 21 days of the initial report and trial to be completed within 30 days.** Extensions are permissible only with written justification from a senior police officer.
  - **Under BNSS laws** , the time limit for investigation and trial is **2 months** from the date of FIR.

- **Establishment of Fast-Track Courts:** It also mandates the **creation of 52 special courts** dedicated to expediting the handling of **sexual violence cases.**
- **Aparajita Task Force: The Bill calls for the establishment of a specialized task force at the district level, led by a deputy superintendent of police dedicated to investigation of rape and other atrocities against women and children.**
- **Stricter Penalties for Repeat Offenders:** The legislation proposes **life imprisonment for repeat offenders, with the possibility of the death penalty** if the circumstances warrant it.
- **Protection of Victims' Identities:** The Bill includes provisions to **protect the identities of victims,** ensuring their privacy and dignity during the legal process.
- **Penalties for Delaying Justice:** It introduces **penalties for police and health officials** who fail to act promptly or tamper with evidence. This aims to hold authorities accountable for any negligence in the judicial process.
- **Publication Restrictions**: The Bill imposes strict penalties for **unauthorised publication of court proceedings** related to sexual offences, with potential imprisonment of 3 to 5 years.

What are the Challenges Related to Aparajita Bill 2024?

- **Constitutional Validity:** The **Aparajita Women and Child (West Bengal Criminal Laws Amendment) Bill, 2024** seeks to amend central laws, raising concerns about its constitutional validity and jurisdictional issues.
  - Under **Article 246** of the Indian Constitution, **states have the authority to legislate on issues listed in the State List**. However, the **concurrent jurisdiction** over criminal laws introduces complexity. If the bill overrides the central law, it needs a President's assent.
- **Unrealistic Timeframe: Completing investigations within 21 days is a significant challenge given the complexity of rape cases and the existing backlog in the legal system.**

- **Legal Challenges**: There have been many instances in which state amendments to central laws have been contested in Courts. For instance:

  - ***State of West Bengal v. Union of India (1964):*** In this the **Supreme Court** invalidated the **West Bengal Land Reforms Act, 1955,** for conflicting with the central **Land Acquisition Act, 1894**, affirming Parliament's supremacy.
  - ***KK Verma v. Union of India (1960)***: In this case the Supreme Court struck down the **Madhya Pradesh Agricultural Produce Markets Act, 1958**, for **inconsistency with central laws.**
    - These cases underline the judiciary's stance on central legislation's supremacy over state amendments.
- **Implementation Challenges:** The Bill's effective implementation may face hurdles, requiring upgrades to law enforcement infrastructure and specialised training for police and judicial officers.
- **Overburdened Courts:** Indian courts face severe delays, with cases taking an average of over 13 years to resolve. This backlog could hinder timely trials following the expedited investigations.
- **Legal Rights of the Accused:** The legal framework guarantees the right to a fair trial for the accused, which can prolong the process through appeals and mercy petitions.

Note

- **Criminal law** in India is **regulated by both state and central governments**, as it falls under the **concurrent list** of the Constitution, enabling both levels to legislate on the subject.

WB legislation versus existing law

Punishment for rape and murder

WB Bill: Death sentence if the victim dies or is left in a vegetative state

Existing law: Under BNS, if rape results in the victim's death or leaves her in a vegetative state, death penalty is only one of the punishments besides life term or minimum 20 years in jail

Fast-track courts

WB Bill: Establishment of special courts for cases of sexual violence

Existing law: Under a centrally sponsored scheme, the department of justice provides funds to states for setting up fast track special courts for trial of cases relating to sexual offences

Probe deadlines

WB Bill: Investigation must be concluded within 21 days of the initial report

Existing law: Under BNSS, investigation must be concluded within two months of the filing of FIR. For trial, it specifies framing of charge within 60 days from the first hearing and judgment within 30 days (maximum of 60 days) after arguments conclude

Junior doctors continue their protest in Kolkata.
SAMIR JANA/HT

Disclosing victim's identity

WB Bill: Imprisonment of 3 to 5 years

Under BNS: 2 years imprisonment and fine

What are the Laws Related to Rape in India?

- Criminal Law (Amendment) Act 2013**: This was enacted for effective legal deterrence against sexual offences.**
  - Under the Act, the **minimum sentence for rape was altered from 7 years to 10 years.** Furthermore, in cases that resulted in the death of the victim being left in a vegetative state, the minimum sentence has been duly increased to 20 years.
  - Further, the **Criminal Law (Amendment) Act, 2018** was enacted to prescribe even more stringent penal provisions including the death penalty for the rape of a girl below the age of 12 years.
- Protection of Children from Sexual Offences Act, 2012 (POCSO): **The Act was enacted to protect children from sexual assault, sexual harassment, and pornography.**
  - The Act **raised the age of consent to 18 years** (which was 16 till 2012) and criminalises all sexual activities for those under 18 even if consent was factually present between two minors.
    - This Act was also amended in 2019 to make provisions for enhancement of punishment for various offences to ensure safety, security & dignity of a child.
- **Rights of a Rape Victim:**
  - **Right to Zero FIR:** The term **Zero FIR** means that the person **can file an FIR in any police station**, irrespective of the place of incident of the jurisdiction.
  - **Free Medical Treatment:** According to section 357C of code of Criminal Procedure **(Bharatiya Nagarik Suraksha Sanhita (BNSS)**, no private or government hospitals can charge fees for the treatment of rape victims.
  - **No two-Finger Test:** No doctor shall possess the right to do **Two Finger Tests** while doing the medical examination.
  - **Right to Compensation:** A new provision has been introduced as section 357A of the CrPC, which provides some amount as compensation to victims.

What are the Challenges in Addressing Security of Womens?

- **High Incidence of Crimes Against Women:** Data from **National Crime Record Bureau (NCRB')s** 'Crime in India' reports shows reported **crimes against women increased** from 3.37 lakh in 2014 to 4.45 lakh in 2022, a rise of **over 30%.**
    - The Crime Rate (crimes per lakh women) also increased from 56.3 in 2014 to 66.4 by 2022.
- **Patriarchal Mindset:** Deep-rooted patriarchy fosters **male dominance and entitlement**, **objectifying women** and creating a hostile environment.
    - This cultural mindset is a major barrier to women's safety and equality.
- **Objectification in Media:** Media portrayals o**ften commodify women,** undermining their autonomy and **contributing to a culture that disregards women's rights.** This objectification reinforces harmful stereotypes and societal attitudes.
- **Delayed Justice and Legal Challenges:** The **slow legal process and infrequent death penalty impositions** exacerbate trauma for victims.
    - Timely justice remains a critical issue, with ongoing debates about capital punishment's effectiveness.
- **Lack of Awareness and Education: Inadequate sex education** and discussions about consent and **gender sensitivity** perpetuate harmful stereotypes and ignorance, preventing effective intervention.
- **Infrastructure and Safety Measures**: Poorly lit streets, **inadequate public transport**, and a lack of safe public toilets increase women's vulnerability. Improving infrastructure and safety measures is essential.

Way Forward

- **Comprehensive Legal Framework:** There is a need to **strengthen penalties for crimes against women** under the Indian Penal Code (**BNS**), introduce **specific legislation for stalking,** cyber harassment, and domestic violence, and **establish specialised courts** and police units for swift justice.
- **Fast-Track Courts:** Establish fast-track courts and enhance punishment for grave cases like rape, as recommended by **Justice Verma Committee.**
    - Increase women's representation in the judiciary.
- **Social and Cultural Transformation:** There is a need to **integrate gender equality education in schools and colleges,** support community initiatives that raise **awareness about women's rights**, and implement policies for **women's economic empowerment** and decision-making involvement.
- **Effective Law Enforcement and Justice Systems:** Provide **gender-sensitive training** for police, create **specialised units for violence against women**, and establish **victim support centres**.
- **Infrastructure and Technology:** There is a need to **upgrade public transportation systems,** install CCTV cameras in public areas, and develop **safety apps** and **emergency response systems.**
- **Empowerment and Awareness: Conduct campaigns to educate women about their rights and encourage reporting of violence, offer vocational training and skill development, and support women's organisations for stronger advocacy efforts.**

__Drishti Mains Question:__

Despite the presence of legal protections, violence against women in India remains a significant issue. Analyse the factors contributing to the high rates of such crimes and propose comprehensive reforms to effectively tackle these challenges.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Mains

Q. We are witnessing increasing instances of sexual violence against women in the country. Despite

existing legal provisions against it, the number of such incidences is on the rise. Suggest some innovative measures to tackle this menace. **(2014)**

Himachal Pradesh's Bill to Raise Women's Minimum Marriage Age to 21

Source: TH

Why in News?

Recently, the Himachal Pradesh (HP) Assembly passed the **Prohibition of Child Marriage (Himachal Pradesh Amendment) Bill, 2024,** which aims to **raise the minimum marriageable age** for women from 18 to 21 years.

- It seeks to amend the **Prohibition of Child Marriage Act, 2006 (PCMA 2006)** to advance gender equality and encourage higher education among women.
- This has sparked significant discussion due to its implications for gender equality and its **potential need for presidential assent.**

What does HP's Bill on Women's Minimum Marriage Age Entail?

- **Redefinition of 'Child':** Section 2(a) of the 2006 Act defines a **"child" as a male under 21 years of age or a female under 18 years of age.**
  - The Bill removes this gender-based distinction, defining a **"child" as anyone under 21 years of age, irrespective of gender.**
- **Extension of Petition Period:** The Bill also extends the time period for filing a petition to **annul a marriage** (to declare a marriage invalid and legally void).
  - Under Section 3 of the 2006 Act, an individual **who was a minor at the time of marriage can file for annulment within two years** of attaining majority (before turning 20 for women and 23 for men).
  - The Bill extends this period to five years, allowing both women and men to file petitions before they turn 23, in accordance with the **new minimum marriageable age of 21 years.**
- **Precedence Over Other Laws:** A new provision, Section 18A, ensures that the Bill's provisions take precedence over existing laws and cultural practices, establishing a **uniform minimum marriageable age across Himachal Pradesh.**

Why is the Assent of the President Required?

- **Governor's Options:** Under **Article 200 of the Constitution**, after a Bill is passed by a State Legislative Assembly, the Governor can either grant assent, withhold assent, **return the Bill for reconsideration**, or reserve it for the President's consideration.
  - A Bill is reserved for the President's consideration if the Governor believes it

could **undermine the authority of the High Court or conflict with central laws.**

- **Inconsistency with Central Law:** The Himachal Pradesh Bill proposes a different minimum marriageable age for women, potentially conflicting with the **central PCMA, 2006.**
- **Constitutional Considerations**: According to the **Seventh Schedule of the Indian Constitution,** marriage and divorce fall under the Entry 5 of this **Concurrent List,** allowing both central and state governments to regulate child marriages.
    - However, **if a state law conflicts with a central law,** it may be deemed **"void" unless it receives the President's assent.**
    - **Article 254 of the Constitution** establishes the **doctrine of repugnancy,** which deals with the conflict between central and state laws.
        - **The Parliament has exclusive powers to make laws for matters in the Union List, while the state legislature has powers for matters in the State List. Both have powers for matters in the Concurrent List.**

        - Repugnancy arises when two laws are inconsistent, and if a state law is repugnant to a central law on a matter in the Concurrent List, the central law prevails, and the state law is void to the extent of the inconsistency.

            - If the state law is reserved for the President and **receives assent, it can prevail within the state,** overriding the central law's provisions in that state.

What are the Concerns Regarding the HP's Women's Minimum Marriage Age Bill?

- **Legal Ambiguities:** The proposed legal framework could create inconsistencies, such as **permitting consensual sex from 18** but **restricting marriage until 21**.
    - This discrepancy might lead to new issues, such as **complications related to reproductive rights and legal status.**
    - **Juvenile Justice Care and Protection and Integrated Child Protection Scheme** provide support only up to age 18, leaving **no space to support child brides/grooms aged 19-21.**
    - Critics raised concerns that it might also limit legal protections for women who **marry before the age of 21** and could potentially lead to increased policing of affected communities.
- **Opposition from Activists:** Child and women's rights activists argue that increasing the **marriage age might inadvertently strengthen parental control** and hinder the autonomy of young adults.
    - They point out that the current law is sometimes misused to penalise daughters who choose partners against their families' wishes.

Why is there a Minimum Age for Marriage?

- **Preventing Child Marriages**: The minimum age of marriage is set to prevent the abuse of minors and **outlaw child marriages.**
- **Legal Standards**:
    - **Hindu Marriage Act, 1955**: Sets 18 years as the minimum age for brides and 21 for grooms.
    - **Islamic Law**: Considers the marriage of a minor who has attained puberty as valid.
    - **Special Marriage Act, 1954 & Prohibition of Child Marriage Act (PCMA), 2006**: Prescribe 18 years for women and 21 for men. PCMA 2006 also considers marriages below this **age as "voidable" (**something legal, but which can be annulled later by one party of a contract**) only if contested.**
- **Alternative Recommendations:** The **2008 Law Commission Report** and the **National Human Rights Commission's 2018** proposal both recommended setting a **uniform marriage age of 18 for both men and women**, which some argue could be a more equitable solution.
    - Various **United Nations** bodies, including **the Committee on the Elimination of**

Discrimination Against Women, advocate for a minimum marriage age of 18 years for both men and women, as they should have attained full maturity and capacity to act before assuming the important responsibilities of marriage.

Evolving Marriage Age Laws

Child marriages have deep roots in Indian society, even before **colonisation.** The **Child Marriage Restraint Act of 1929** set the **age limit at 14 for girls and 18 for boys,** but was ineffective due to low age limits.

- The Act was amended in 1978 to increase the **age limit to 18 for girls and 21 for boys,** but still failed to restrain child marriages.
- The **PCMA of 2006** aims to completely remove child marriage from society. The Act makes **child marriage illegal, offers victims' rights protection, and strengthens penalties** for those who aid, abet, promote, or solemnise such weddings. The legal age for marriage remained the same.
- The **Prohibition of Child Marriage (Amendment) Bill, 2021** was introduced in the Lok Sabha in December 2021 and referred to a Standing Committee, which received multiple extensions.
    - However, with the dissolution of the 17th Lok Sabha, the Bill has now lapsed. **The Bill aimed to increase the minimum age of marriage for females to 21** years and override any other law, custom, or practice.

Why is the Government Re-examining the Age of Marriage?

- **Gender Neutrality**: One of the primary reasons for **re-examining the marriage age** is to **ensure gender parity.** By raising the minimum marriage age for women to 21, the government aims to align it with the existing age requirement for men, **thereby promoting equality.**
- **Health Impacts**: Addressing issues like early pregnancies which affect nutritional levels, **maternal and infant mortality rates (MMR & IMR),** and overall health.
- **Educational and Economic Impact**: Reducing the **drop-off in education** and livelihood opportunities due to early marriages.
    - The **Jaya Jaitly Committee was established in June 2020** by the Ministry for Women and Child Development to assess the implications of increasing the marriage age.
        - The committee recommended increasing the **marriage age to 21, enhancing access to education,** skill training, and sex education.
- **Social and Economic Development:** The re-examination aligns with broader goals of social and economic development. By addressing early marriage, the government aims to **tackle associated issues like poverty and social stigma,** which often pressure families into early marriages.

Does Raising the Marriage Age Address Systemic Inequalities?

- **Superficial Equality:** Raising the marriage age to 21 aligns with the age for men, but this **alone does not guarantee gender equality or empowerment.** In a deeply **patriarchal society,** mere numerical parity does not address the systemic inequalities women face.
    - True empowerment involves **more than equal marriage ages**. It requires addressing broader issues such as **economic opportunities, education access, and societal attitudes towards women.**
    - Gender parity involves more than just age laws; it includes addressing issues like pay gaps, workplace discrimination, and access to healthcare.
- **Unaddressed Problems: Increasing the marriage age does not tackle the root causes of early marriages, such as** dowry **pressures, social stigma, and familial control.**

    - These issues are driven by societal and economic factors that cannot be resolved by legal changes alone.

- **Health Concerns**: The amendment's proponents **suggest that raising the marriage** age will improve maternal and infant health.
    - However, existing data shows that average marriage ages are already higher in some states (Kerala women get married at 21.4 years on average), and **health outcomes are more closely linked to overall socio-economic conditions.**
- **Cultural Resistance:** In many tribal communities, **traditional norms and practices** may continue to drive early marriages despite legal changes. Addressing cultural resistance and changing mindsets are vital for the policy's success.

Way Forward

- **Socio-Behavioral Changes**: The effectiveness of the amendment relies heavily on broader societal changes.
    - Successful examples, such as **Odisha's child marriage-free villages,** highlight the need for **community-driven initiatives and support systems.**
- **Voidability of Child Marriages:** Current laws make child marriages voidable rather than *void ab initio*, which can potentially undermine the effectiveness of legal reforms.
- **Address Root Causes**: Focusing on **educational access, vocational training, and economic opportunities for women is crucial.**
    - Policies should aim to provide safe, flexible education and job opportunities, which **can help delay marriage and improve overall well-being.**
- **Comprehensive Reforms**: Instead of legal tweaks, a broader approach involving **societal transformation and enforcement of existing** laws is necessary.
    - This includes addressing social pressures, ensuring safe reproductive health access, Implementing comprehensive sex education and combating harmful practices.
- **Economic Fallout of the Pandemic:** Address the economic impacts of the Covid pandemic, which **has exacerbated job losses and triggered early marriages** in economically stressed families.
- **Lessons from History:** Historical attempts to change marriage laws have shown mixed results. Successful gender parity initiatives often involve a **combination of legal changes, social reforms, and educational efforts.**
    - Comparing with other countries and examining these practices can provide valuable insights.

Drishti Mains Question:

Q. Evaluate the potential impact of increasing the minimum marriageable age from 18 to 21 on gender equality and societal norms. What challenges might arise from this legal change?

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. Which Article of the Constitution of India safeguards one's right to marry the person of one's choice? (2019)

(a) Article 19

(b) Article 21

(c) Article 25

(d) Article 29

Ans: (b)

Lancet Study on Micronutrient Inadequacies

For Prelims: Malnutrition, Vitamins, Enzymes, Anaemia, State of Food Security and Nutrition in the World' (SOFI), National Family Health Survey (NFHS-5) 2019-21, Mission Poshan 2.0, UNICEF.

For Mains: Prevalence of Nutrient Deficiency, Measures Needed to Tackle Nutrient Deficiency and Malnutrition.

Source: DTE

Why in News?

Recently, a **study published in Lancet Global Health highlighted the global inadequacy of micronutrient** intake, particularly for iodine, vitamin E (tocopherol), calcium, iron, riboflavin (vitamin B2), and folate (vitamin B9) across different regions and age groups.

- As the **first global estimate based on dietary intake data**, it underscores the need for nutritional interventions **such as dietary modifications, biofortification, fortification, and supplementation**.

What are Key Findings of the Study?

Category	Nutrient(s)	Key Findings
Global Findings	Iodine, Vitamin E, Calcium	Over 5 billion people worldwide have inadequate intakes.
	Iron, Riboflavin, Folate, Vitamin C	More than 4 billion people have insufficient intakes.
Gender Differences	Iodine, Vitamin B12, Iron, Selenium, Calcium, Riboflavin, Folate	Women have higher inadequacies.
	Magnesium, Vitamin B6, Zinc, Vitamin C, Vitamin A, Thiamin, Niacin	Men have higher inadequacies.
India-Specific Findings	Riboflavin, Folate, Vitamin B6, Vitamin B12	India experiences high levels of inadequacies in these nutrients

What are Micronutrients?

- **About Micronutrients:** Micronutrients include **vitamins and minerals** required by the body in **very small amounts**. E.g., Iron, Vitamin A, Iodine etc.
  - They are crucial for producing **enzymes, hormones,** and other substances necessary for normal growth and development.
- **Impact of Micronutrient Deficiencies:**
  - **Severe Conditions:** Deficiencies in micronutrients can lead to **serious health issues,** particularly in children and pregnant women. E.g., **Anaemia.**
  - **General Health:** Lack of micronutrients can cause less visible but significant health problems such as **reduced energy levels, mental clarity, and overall capacity.**
  - **Long-Term Effects:** These deficiencies can impact **educational outcomes**, work productivity, and increase susceptibility to other diseases and health conditions.
- **Types:**
  - **Undernutrition**:
    - **Wasting:** Low weight-for-height is known as wasting. It occurs when a person has not had enough food to eat and/or they have had an infectious disease.
    - **Stunting:** Low height-for-age is known as stunting. It often occurs due to insufficient calorie intake, leading to a low weight for a given height.
    - **Underweight:** Children with low weight-for-age are known as underweight. A child who is underweight may be stunted, wasted, or both.
  - **Micronutrient-related Malnutrition:**
    - **Vitamin A Deficiency:** Insufficient intake of vitamin A can lead to vision impairment, weakened immunity, and other health issues.
    - **Iron Deficiency:** Causes anaemia, impacting the body's ability to transport oxygen, leading to fatigue and weakness.
    - **Iodine Deficiency:** Results in thyroid-related disorders, affecting growth and cognitive development.
  - **Obesity:** Excessive calorie intake, often coupled with a sedentary lifestyle, can lead to obesity. It is characterised by an accumulation of excess body fat, posing health risks like cardiovascular diseases and diabetes.
    - In adults, **overweight is defined** as a **Body Mass Index (BMI)** of 25 or more, whereas obesity is a BMI of 30 or more.
  - **Diet-related Noncommunicable Diseases (NCDs):** It encompasses cardiovascular diseases, such as heart attacks and strokes, often associated with high blood pressure, primarily stemming from unhealthy diets and inadequate nutrition.

WHO's Role in Preventing Micronutrient Deficiencies

- **Key Programmes and Interventions:**
  - **Ambition and Action in Nutrition:** WHO works with Member States and partners to prevent micronutrient deficiencies through various programmes.
    - The approach is guided by the **WHO's Ambition and Action in Nutrition 2016–2025**, which aims for 'a world free from all forms of malnutrition where all people achieve health and well-being.
  - **Iron and Folic Acid Supplementation:** Provides essential nutrients to prevent deficiencies and related health issues, particularly in vulnerable populations like pregnant women.
  - **High-Dose Vitamin A Supplementation:** Aims to prevent **vitamin A** deficiency, which is crucial for vision and immune function, especially in children.
  - **Fortification of Foods:**
    - **Salt Iodization**: Effective in reducing iodine deficiency globally.
    - **Wheat Flour Fortification:** Includes iron and folic acid to combat anaemia.

What is the Status of Malnutrition in India?

- **Undernourishment:** As per the **'State of Food Security and Nutrition in the World' (SOFI)** report released in 2024, India is home to 194.6 million (19.5 crore) undernourished people,

the **highest** in any country in the **world**.

- **Child Malnutrition:** India is home to one-third of the world's malnourished children.
  - According to the **National Family Health Survey (NFHS-5) 2019-21**, approximately **36%** of children under the age of five are stunted, **19%** are wasted, **32%** are underweight, and **3%** are overweight.
- **Global Hunger Index 2023:** India's 2023 **GHI score** is **28.7**, considered serious according to the GHI Severity of Hunger Scale.
  - India's child wasting rate, at 18.7, is the **highest child wasting rate** in the report.
- **National Family Health Survey 5:** The prevalence of malnutrition varies significantly across different groups:
  - **25.0%** in men aged 15-49 years, **57.0%** in women aged 15-49 years, **31.1%** in adolescent boys aged 15-19 years, **59.1%** in adolescent girls, **52.2%** in pregnant women aged 15-49 years, and **67.1%** in children aged 6-59 months.
- **Regional Disparities:** Bihar, Gujarat, Madhya Pradesh, Andhra Pradesh, and Jharkhand have high rates of malnutrition.
  - Mizoram, Sikkim, and Manipur are **relatively better than other Indian states**.

What are the Consequences of Malnutrition?

- **Health Effects:**
  - **Impaired Growth:** Malnutrition in children can lead to inadequate growth, affecting both their physical development and cognitive abilities.
  - **Compromised Immunity:** Those suffering from malnutrition often have weakened immune systems, making them more susceptible to diseases and increasing morbidity and mortality rates.
  - **Nutrient Deficiencies:** Insufficient intake of essential micronutrients can cause deficiencies in iron, vitamin A, and zinc, undermining overall health and immunity.
- **Educational Impacts:**
  - **Cognitive Delays:** Poor nutrition during early childhood can result in cognitive delays, affecting learning capabilities and academic performance.
  - **Higher Dropout Rates:** Children with malnutrition issues are more likely to experience difficulties in regular school attendance and have a higher likelihood of dropping out, which impacts their educational achievements.
- **Economic Consequences:**
  - **Reduced Productivity:** Malnutrition can lead to diminished productivity throughout life, adversely affecting national economic output.
  - **Rising Healthcare Expenses:** The high incidence of malnutrition increases the burden on healthcare services, leading to greater medical costs for both individuals and the government.
- **Intergenerational Effects:**
  - **Maternal and Infant Health:** Anemic mothers are more likely to have anemic babies, continuing the cycle of poor nutrition across generations.
  - **Long-term Health Challenges:** Malnourished children are at greater risk of facing health problems in adulthood, affecting their overall well-being and contributing to long-term public health issues.
- **Social Ramifications:**
  - **Exacerbated Inequality:** Malnutrition predominantly impacts marginalised and economically disadvantaged groups, intensifying social inequalities.
  - **Social Stigma:** Individuals experiencing malnutrition may face stigma and discrimination, which can affect their mental health and overall quality of life.
- **Impact on National Progress:**
  - **Hindered Human Capital Development:** Malnutrition impedes the growth of human capital, limiting opportunities for economic and social advancement.
  - **Increased Strain on Healthcare:** The prevalence of malnutrition contributes to a greater strain on healthcare resources, diverting focus and funds from other crucial health initiatives.

How Can Nutrient Deficiency in India Be Addressed?

- **Food Fortification:** It is the addition of key **vitamins and minerals** such as **Iron, Iodine, Zinc, Vitamins A & D** to staple foods such as rice, wheat, oil, milk and salt.
    - It is a key tool in the fight against **malnutrition** because it increases the **nutritional value of staple foods** by adding vitamins and minerals.
- **Strengthening Integrated Child Development Services (ICDS):** Provide continuous and comprehensive training for **Anganwadi workers** to improve their skills in monitoring child growth, delivering nutritional education, and engaging **community support.**
- **Special Nutrition Programme (SNP):** Ensure that SNP provides adequate nutritional supplements, including calories and proteins, consistently across all areas, particularly in tribal and slum regions.
- **Creches for Working and Ailing Women:** Expand the number of **creches** to cover more children, particularly in areas with high numbers of **migrant workers** and low-income families.
- **Wheat Based Supplementary Nutrition Programme:** Explore innovative ways to utilise **wheat-based products** to ensure timely and adequate supply of wheat-based supplements to the targeted populations.
- **UNICEF Assistance:** Ensure that **UNICEF's** support covers a comprehensive range of services, including health, nutrition, education, and sanitation, to address the multifaceted nature of malnutrition.

What are the Initiatives Taken to Combat Malnutrition in India?

- Mission Poshan 2.0
- Integrated Child Development Services (ICDS) Scheme
- Pradhan Mantri Matru Vandana Yojana (PMMVY)
- Mid-Day Meal Scheme
- Scheme for Adolescent Girls (SAG)
- Mother's Absolute Affection (MAA)
- Poshan Vatikas

__Drishti Mains Question:__

Q. Evaluate how nutrient deficiencies affect public health and economic development in India, and suggest effective government strategies to combat malnutrition.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. Which of the following are the objectives of 'National Nutrition Mission'? (2017)

1. To create awareness relating to malnutrition among pregnant women and lactating mothers.
2. To reduce the incidence of anaemia among young children, adolescent girls and women.
3. To promote the consumption of millets, coarse cereals and unpolished rice.
4. To promote the consumption of poultry eggs.

Select the correct answer using the code given below:

(a) 1 and 2 only

(b) 1, 2 and 3 only

(c) 1, 2 and 4 only

(d) 3 and 4 only

Ans: (a)

7th Rashtriya Poshan Maah 2024

Source: PIB

Why in News?

Recently, the **Ministry of Women and Child Development** launched the **Rashtriya Poshan Maah 2024** in **Dhar district** of Madhya Pradesh on 1st September 2024.

- Also, the Ministry of Women and Child Development received the **National Award for e-Governance 2024 (Gold)** for the **Poshan Tracker initiative.**

National Awards for e-Governance

- The awards are **presented annually, since 2003**, by the **Department of Administrative Reforms and Public Grievances (DARPG),** Ministry of Personnel, Public Grievances and Pensions.
- **Purpose of Award:**
    - Recognize achievements in the area of e-Governance.
    - Disseminate knowledge on effective methods of designing and implementing sustainable e-Governance initiatives.
    - Encourage incremental innovations in successful e-Governance solutions.
    - Promote and exchange experiences in solving problems, mitigating risks, resolving issues and planning for success.

- All Central Ministries/Departments, State/UT Governments, Districts, Local Bodies, Central & State Government PSUs, Academic/Research Institutions (Government and Non –Government) are eligible to apply for these awards.

What is Rashtriya Poshan Maah?

- **About Rashtriya Poshan Maah:** It is an **annual campaign** aimed at addressing **malnutrition** and promoting **better nutrition** and health practices.
    - It is celebrated in the month of **September** every year under **Poshan Abhiyan** (PM's Overarching Scheme for Holistic Nourishment).
- **Key Focus Areas:** It focuses on enhancing awareness about **nutrition, improving dietary practices, and combating malnutrition** among vulnerable groups, including **children, adolescents, pregnant women, and lactating mothers.**
    - It is in line with the national vision of a **'Suposhit Bharat.'**
- **Activities:** Various activities are conducted, such as **plantation drives**, distribution of nutritional supplements, community outreach programs, exhibitions, and educational sessions.
    - E.g., **Rashtriya Poshan Maah 2024** began with a nationwide plantation drive titled **"Ek Ped Maa Ke Naam".**
- **Key Themes of Rashtriya Poshan Maah 2024: Anaemia,** Growth Monitoring, Complementary Feeding, **Poshan Bhi Padhai Bhi,** Technology for Better Governance, and **Ek Ped Maa Ke Naam .**

What is POSHAN Abhiyaan?

- **About:** It was launched in **March 2018** to address malnutrition by focusing on the **nutritional needs** of adolescent girls, pregnant women, lactating mothers, and children up to 6 years old.
    - It is implemented by the Ministry of Women and Child Development.
- **Objectives:** It targets to reduce **stunting, under-nutrition, anaemia** (among young children, women and adolescent girls) and reduce **low birth weight** by **2%, 2%, 3% and 2% per annum** respectively.
    - Targeting children aged **0-6 years** to reduce stunting and underweight prevalence**.**
    - Reducing Anaemia prevalence among young children (6-59 months) and among women and adolescent girls aged 15-49 years.
- **Components of POSHAN Abhiyaan:**
    - **Village Health Sanitation Nutrition Day (VHSND):** It promotes coordination through target-setting, sector meetings, and **decentralised planning**.
    - **ICDS-CAS (Common Application Software):** It employs software and growth monitoring tools to **track nutritional status.**

What is Poshan Tracker?

- It is a **mobile app** that tracks and **monitors the health and nutrition** of children and pregnant women in India.
- It serves as an essential tool for **Anganwadi Workers (AWWs)** that reflects the progress and impact of their interventions and enables real-time monitoring.
- It is an interactive tool that measures a child's growth using **World Health Organization (WHO) standards** and provides suggestions for corrective action based on the inputs.
- AWWs can register **6 types of beneficiaries:**
    - Pregnant Women, Lactating Mothers, Children between 0-6 months, Children between 6 months to 3 years, Children between 3-6 years and Adolescent Girls aged 14-18 years (specifically for Aspirational Districts).

Anaemia

- **It is characterised by a lower-than-normal number of red blood cells or a reduced**

concentration of haemoglobin within these cells.

- ○ [Haemoglobin](), a protein in red blood cells, is essential for oxygen transport throughout the body.

- **Cause:** Inadequate intake or absorption of essential nutrients, notably **iron**, but also including folate, **vitamins B12,** and **vitamin A,** is a significant cause.
- **Global Prevalence:** An estimated **40% of children** aged 6–59 months and approximately **37% of pregnant women** suffer from anaemia.
- **Prevalence in India:** According to the **NFHS 5 (2019-21),** it affects **31.1%** of adolescent boys (15-19 years), **59.1%** of adolescent girls, **52.2%** of pregnant women (15-49 years), and **67.1%** of children (6-59 months).

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. Which of the following are the objectives of 'National Nutrition Mission'? (2017)

1. To create awareness relating to malnutrition among pregnant women and lactating mothers.
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3. To promote the consumption of millets, coarse cereals and unpolished rice.
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Select the correct answer using the code given below:

(a) 1 and 2 only

(b) 1, 2 and 3 only

(c) 1, 2 and 4 only

(d) 3 and 4 only

Ans: (a)

Q. Which of the following is/are the indicator/indicators used by IFPRI to compute the Global Hunger Index Report? (2016)

1. Undernourishment
2. Child stunting
3. Child mortality

Select the correct answer using the code given below:

(a) 1 only

(b) 2 and 3 only

(c) 1, 2 and 3

(d) 1 and 3 only

Ans: (c)

Use of Ayurvedic Whole System in Rheumatoid Arthritis

Source: PIB

Why in News?

Recently, a study highlighted the effectiveness of the **Ayurvedic Whole System (AWS)** in managing **Rheumatoid Arthritis (RA)**, a chronic autoimmune disorder.
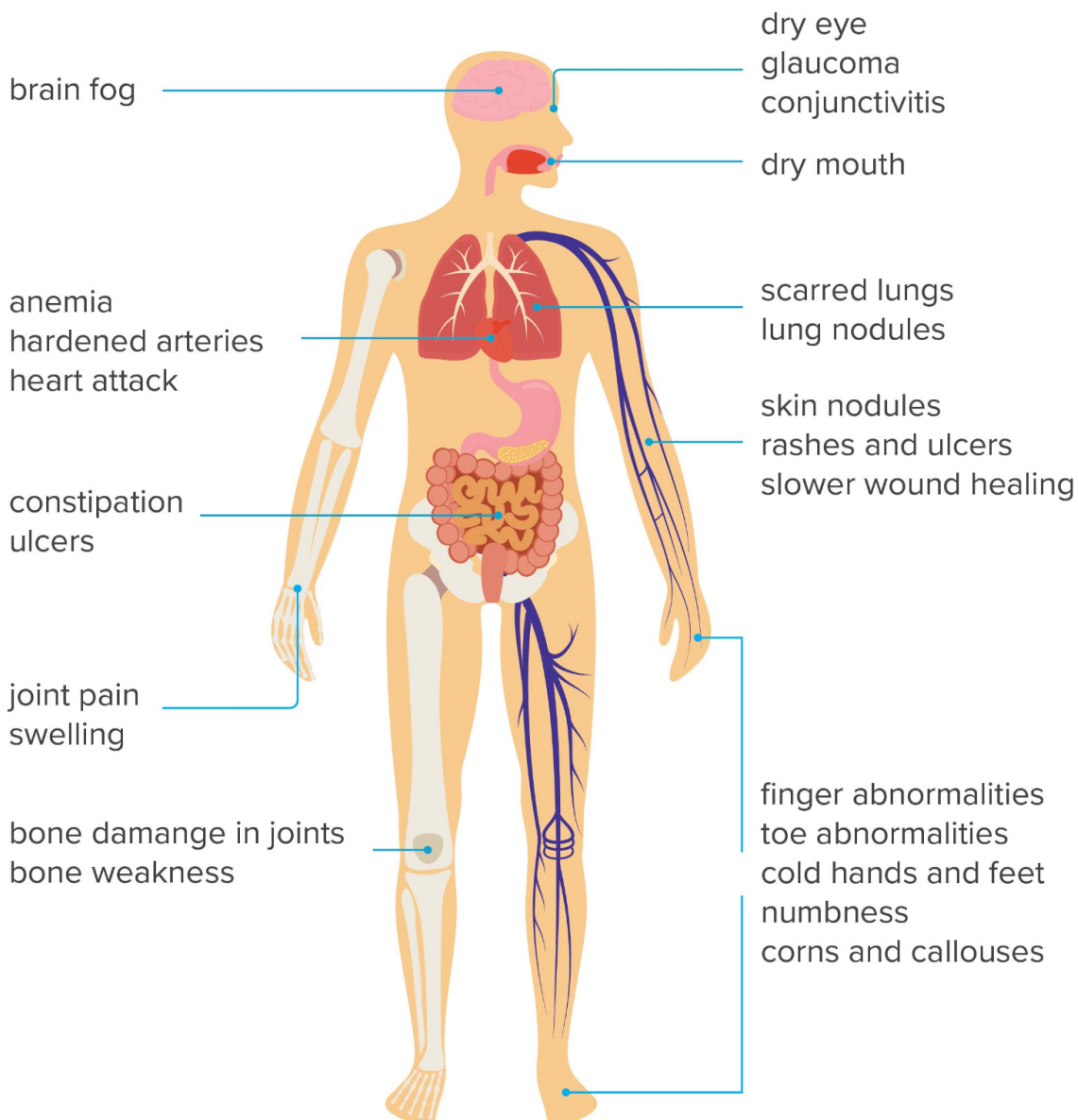
- The research shows that the AWS not only reduces RA symptoms but also helps **restore** a **normal metabolic balance** in patients.
- It presents a promising **complementary approach** to conventional medical treatments.

What are Key Facts About Rheumatoid Arthritis?

- **About:** RA is a **chronic inflammatory disorder** that affects the **lining of joints**, causing a painful swelling that can eventually result in **bone erosion and joint deformity**.
    - In some people, the condition can damage a wide variety of body systems, including the **skin, eyes, lungs, heart and blood vessels**.
    - It is an **autoimmune disorder**. It happens when the immune system doesn't work properly and **attacks the lining** of the joints, called the **synovium**.
- **Significance of the Study:** It supports the Ayurvedic concept of **'Samprapti Vighatan,'** where the disease-causing process is **dismantled**, and the body's **'Doshas' (bio-energies)** are brought back to **balance**.
    - The research is pivotal as it explores the potential for pathology reversal in RA using an Ayurvedic whole-system approach.
- **Key Clinical Improvements Observed:**
    - **Disease Activity Reduction**: There was a notable reduction in the **Disease Activity Score**, a critical measure for assessing RA severity.
    - **Decrease in Joint Inflammation**: Both the total number of **swollen** and tender joints were reduced among patients receiving AWS treatment.
    - **Reduction in Toxins**: The **Ama Activity Measure (AAM) Score**, which evaluates **toxins** in the body, showed significant reduction post-intervention, indicating decreased systemic inflammation and toxicity.
    - **Metabolic Profile Shifts:** Post-AWS treatment, imbalanced metabolic markers began to shift towards **normal** levels observed in healthy controls, suggesting a return to a more balanced metabolic state.
- **First-of-its-Kind Evidence:** This study is the first to clearly demonstrate the clinical efficacy of AWS in managing RA.
    - It highlights the **dual benefit** of symptom reduction and metabolic normalisation, potentially leading to long-term positive outcomes for patients.

Effects on the Body
Rheumatoid Arthritis

brain fog

dry eye
glaucoma
conjunctivitis

dry mouth

anemia
hardened arteries
heart attack

scarred lungs
lung nodules

skin nodules
rashes and ulcers
slower wound healing

constipation
ulcers

joint pain
swelling

bone damange in joints
bone weakness

finger abnormalities
toe abnormalities
cold hands and feet
numbness
corns and callouses

What is the Ayurvedic Whole System?

- **About:** Ayurveda is the time tested **[traditional system of medicine](#)** of India.
  - The term **'Ayurveda'** meaning **'the knowledge of life'** comprises two Sanskrit words viz **'Ayu' meaning 'Life'** and **'Veda' meaning 'Knowledge' or 'Science'**.
  - Ayurveda is a **whole-body (holistic) system** of medicine. It takes a natural approach to all aspects of health and well-being.
- **Ayurvedic Strategy:** Ayurveda is based on the idea that each person has certain **life forces (doshas)** and everything in the universe is connected.
  - An **imbalance in one area can affect another.**
  - When the imbalance is not fixed**, disease and illness can occur.**
  - Ayurveda mostly uses **nutrition, lifestyle changes, and natural treatments.**
  - These are used to **support balance and a return to health.**

- **Three Principal Energies (Doshas):** Ayurveda identifies **three basic types of energy** or **functional principles** that are present in everyone and everything.
    - **Vata:** It governs functions like **breathing, blinking, muscle movement**, and the circulation of fluids.
    - **Pitta:** It governs **digestion, absorption, nutrition**, and body temperature.
    - **Kapha:** It governs the body's structural components, **lubricates joints,** moisturises the skin, and maintains immunity.

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AYUSH Systems of Medicine

AYUSH encompasses Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa Rigpa, and Homeopathy, with Ayurveda having a documented history of 5000+ years.

Ayurveda

Lord Brahma is believed to be the 1st proponent of Ayurveda

- **Samhita Period (1000 BC):** Emerged as mature medical system
  - **Charaka Samhita:** Oldest and most authoritative text
  - **Sushruta Samhita:** Gives fundamental principles and therapeutic methods in eight specialties
- **Main Schools:**
  - **Punarvasu Atreya -** School of physicians
  - **Divodasa Dhanvantari -** School of surgeons

Branches of Ayurveda:

- Kayachikitsa (internal medicine)
- Shalya Tantra (surgery)
- Shalakya Tantra (disease of supra-clavicular origin)
- Kaumarabhritya (paediatrics)
- Agada Tantra (toxicology)
- Bhootavidya (psychiatry)
- Rasayana Tantra (rejuvenation and geriatrics)
- Vajikarana (eugenics & science of aphrodisiac)

Yoga & Naturopathy

THE 8 LIMBS OF YOGA

- SAMADHI — ABSOLUTE BLISS
- YAMAS — VIRTUES OR UNIVERSAL MORALITY
- DHYANA — MEDITATION ON THE DIVINE
- NIYAMAS — PERSONAL OBSERVANCES
- DHARANA — IMMOVABLE CONCENTRATION
- ASANAS — POSES OR POSTURES
- PRATYAHARA — CONTROL OF THE SENSES
- PRANAYAMA — WORKING WITH OUR BREATH

Yoga first propounded by Maharishi Patanjali in systematic form Yogsutra

- **Naturopathy:** Healing with help of 5 natural elements - Earth, Water, Air, Fire and Ether
  - Based on theories of self-healing capacity of body and principles of healthy living
  - Encourages a **person-centred approach** rather than disease-centred

Unani

Pioneered in Greece, developed by Arabs as 7 principles (Umoor-e-Tabbiya)

- Based on the framework of teachings of **Buqrat** (Hippocrates) and **Jalinoos** (Galen)
  - Hippocratic theory of **four humors** viz. blood, phlegm, yellow bile, and black bile
- **Recognised by WHO** and granted official status by India as an alternative health system

Siddha

Dates back to 10000 – 4000 BC; Siddhar Agasthiyar - Father of Siddha Medicine

- Preventive, promotive, curative, rejuvenative, and rehabilitative health care
- **4 Components:** Latro-chemistry, Medical practice, Yogic practice & Wisdom
- Diagnosis based on 3 humors **(Mukkuttram)** and 8 vital tests **(Ennvagai Thervu)**

Sowa Rigpa

Origin: Lord Buddha in India before 2500 years

- Traditional medicine in Himalayan regions of Ladakh, Himachal Pradesh, Arunachal Pradesh, etc.
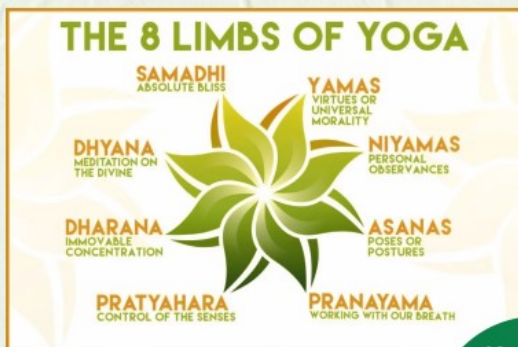- Recognised in India by Indian Medicine Central Council Act,1970 (As amended in 2010)

Homeopathy

German physician Dr. Christian F. S. Hahnemann codified its fundamental principles

- Medicines prepared mainly from natural substances (plant products, minerals, animal sources)
- Brought in India by European missionaries - 1810; official recognition - 1948
- **3 Key Principles:**
  - *Similia Similibus Curentur* (let likes be cured by likes)
  - Single Medicine
  - Minimum Dose

Drishti IAS

Q. Which one of the following pairs does not form part of the six systems of Indian Philosophy? (2014)

(a) Mimamsa and Vedanta

(b) Nyaya and Vaisheshika

(c) Lokayata and Kapalika

(d) Sankhya and Yoga

Ans: (c)

Q.With reference to the history of philosophical thought in India, consider the following statements regarding Sankhya school: (2013)

1. Sankhya does not accept the theory of rebirth or transmigration of soul.
2. Sankhya holds that it is the self-knowledge that leads to liberation and not any exterior influence or agent.

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: (b)

Q.Consider the following statements: (2010)

1. The Taxus tree is naturally found in the Himalayas.
2. The Taxus tree is listed in the Red Data Book.
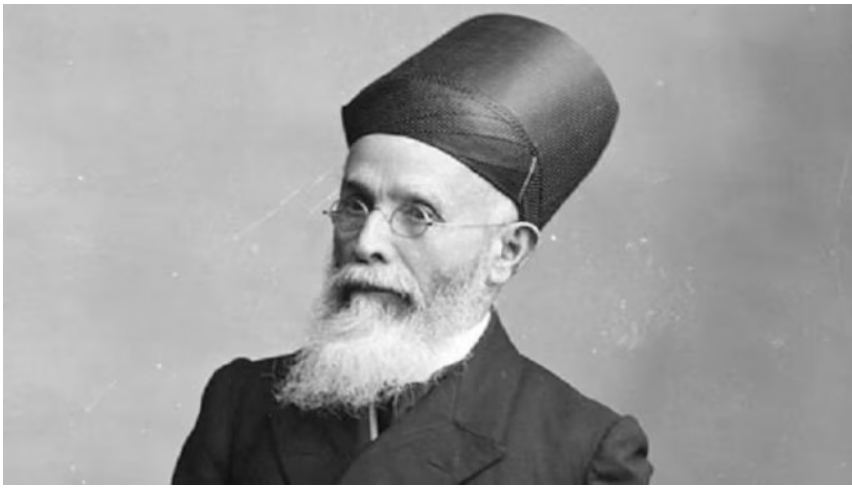3. A drug called "taxol" is obtained from the Taxus tree is effective against Parkinson's disease.

Which of the statements given above is/are correct?

(a) 1 only

(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Ans: (b)

199th Birth Anniversary of Dadabhai Naoroji

- Recently, the **199th birth anniversary** of **Dadabhai Naoroji** was observed on **4th September 2024.** He is also known as the **"Grand Old Man of India".**
- **Contributions of Dadabhai Naoroji:**
    - **British MP:** He served as the **first Indian member** of the British parliament. In **1892**, he won from the **Central Finsbury seat** as a **Liberal Party candidate.**
    - **Establishment of Organizations in England:** In **1865,** Naoroji co-founded the **London Indian Society,** and in **1866**, he established the **East India Association**.
    - **Congress President:** He served as the president of the **Congress three times** in **1886 (Calcutta), 1893 (Lahore), and 1906 (Calcutta)**.
    - **Literature: Naoroji was one of the key proponents of "Drain Theory (1867)" which exposed the economic exploitation of India by Britain.**

        - He published the book Poverty and Un-British Rule in India in 1901.

    - **Other Political Contribution:** Naoroji advocated for a **standing committee** in the **British House of Commons** to address protests from **Indian legislative bodies.**
        - He formed an **Indian parliamentary committee** in the British Parliament in **1893** for lobbying for **reforms in India.**
        - He was appointed to the **Royal Commission on Indian Expenditure** in **1895**.

Read More: Important Indian National Congress Sessions

Nationwide Implementation of Electronic Challan System

Source: HT

The Supreme Court recently stressed the urgent **need for stricter road discipline enforcement using electronic monitoring devices** like speed cameras, CCTV, and speed guns. It **directed all states and UTs to implement the legal provision** mandating the use of such technology for road safety on highways and urban roads.

- This implementation falls under **Section 136A of the Motor Vehicles (MV) Act, 1988**, which was introduced through a **amendment in 2019 to mandate electronic monitoring for road safety**.
    - The **court decided to monitor compliance by organising states into groups**, and specifically singled out the governments of Delhi, West Bengal, Maharashtra, Tamil Nadu, Karnataka, and Kerala, directing them to report on their adherence to Section 136A.

- The court also directed state governments to ensure compliance with **Rule 167A of the Central Motor Vehicles Rules, 1989.**
  - This rule outlines the guidelines for using **electronic enforcement devices to issue challans (penalties) for various traffic violations**, such as overspeeding, unauthorised parking and not wearing protective gear.

Read More: Motor Vehicles Act, 1988, Road Safety

Procurement of Aero-engines for Su-30 MKI Aircraft

Source: PIB

Recently, the **Cabinet Committee on Security (CCS)** approved the procurement of **240 aero-engines (AL-31FP)** for **Su-30 MKI aircraft** - one of the most powerful and strategically-significant fleet of the **Indian Air Force (IAF).**

- These aero-engines will ensure the sustained operation of the IAF's Sukhoi-30 fleet thus enhancing India's defence preparedness.
- It will be procured under **Buy (Indian) category** from **Hindustan Aeronautics Limited (HAL).**
  The 'Buy (Indian)' category involves procuring products from Indian vendors that either:
  - Are **indigenously designed, developed, and manufactured** with at least **50% Indigenous Content (IC)** of the total contract value.
  - Have at least **60% IC** of the total contract value, even if not indigenously designed or developed.
- The engines will have **indigenous content over 54%**.
- The IAF currently operates **259 Su-30 MKI fighters**.
  - Su-30MKI is a **multirole combat fighter aircraft** jointly developed by the **Sukhoi Design Bureau** (Russian aerospace company) and **HAL** for the Indian Air Force (IAF).
- **CCS** is headed by the **Prime Minister**. Other members include ministers for Finance, Defence, Home Affairs and External Affairs.
  - Major decisions on significant appointments, **national security issues**, and defence expenditure in India are made by CCS.

Read More: Atma Nirbhar in Defence Production

Removal of Toxic Chromium from Wastewater

Source: PIB

Recently, researchers at the Institute of Nano Science and Technology (INST) Mohali, an autonomous institute of **Department of Science and Technology** have developed an innovative, method for **removing toxic chromium from industrial wastewater** by utilising **sunlight as a catalyst** in combination with microfluidic technology(manipulation and control of fluids at a very small scale).

- Hexavalent chromium (Cr(VI)) is highly toxic, with **World Health Organization (WHO)** recommended limits of **0.05 mg/L and 5 mg/L for hexavalent and trivalent forms in drinking water,** necessitating the reduction of hexavalent to trivalent chromium.
  - Trivalent chrome is believed to be less readily absorbed by the human body compared to

hexavalent chrome making its removal critical.

- Traditional methods like ion exchange, adsorption, and bacterial reduction are costly and often inefficient.
  - INST researchers have used sunlight as a **catalyst in combination with microfluidic technology** and **TiO_2 nanoparticles** to convert Cr(VI) into a less harmful trivalent form. The process has shown a **95% efficiency in degradation.**
- **Nanotechnology** is the science of manipulating matter at the **atomic or molecular scale, typically** between 1 and 100 nanometers.
  - It has a wide range of applications across various fields, including: Biomedicine, Electronics, Removal of pollutants and toxins from water and soil, cosmetics and Food Science.

Read More: Removal of Heavy Metals from Water