

OCTOBER  
2023

# KSG

An Institute For **IAS** Exam...



**WITH LOADED FEATURES**

- PHILOSOPHY OF THE MONTH • PT CONCATENATION • MAP CONNECT
- THEMATIC ESSAYS • CONTEMPORARY ETHICS CASE STUDIES

**“GET YOUR MAINS ANSWER EVALUATED THROUGH THIS COPY”**

## MESSAGE FROM DR. KHAN ....

Dear Students,

A lot is happening in India and worldwide, day in and day out. The canvas is fully spread out, and each inch has colours, some eye-catching and others not so pleasant.

We must insulate ourselves from the things we cannot control, especially during such times when you are focused on your goals. Being worried about something that you can't control does no good. Do what you can do best in your capacity and contribute to the betterment of society once you are in a position to make a difference.

Watching too much negative news and doomscrolling will distract us, and it will also affect our health, thinking, and preparation. Although we cannot ignore or avoid what is happening worldwide, we can be positive and help others do the same.

The world has seen wars in the past, and every time, humanity has survived and built a better future. If we talk about war, we must speak of Japan and Germany. At the end of the Second World War, these war-ravaged countries were annexed by the group of Allies, but if we look at the present, both countries are on top in every field like economy, technology, humanity, etc. This shows that although war has a very bad effect on us, if we have a positive attitude, dedication, perseverance, and willpower, we can conquer the world again despite many obstacles.

The times are crucial, but in these critical times, there is always hope for positivity. The Middle East conflict is commonly viewed by many as a religious conflict, but there is a Kitchen in Nottingham, England, where a Cafe is named "Salaam Shalom Kitchen". The cafe is a joint Muslim & Jewish project founded on the belief that working together across communities and perceived boundaries helps build community cohesion and break down barriers. It offers hot meals to people experiencing hunger and loneliness every Wednesday.

The actual difference comes when you achieve the pinnacle of success, along with a better sense of judgment than before. Have faith in yourself and the work you do; let it guide your behaviour.

Be the lighthouse in the darkest of times. Let empathy be your compass and compassion your guiding principle. We can inspire change, advance peace, and build a better future for ourselves and future generations. India has a long tradition of standing with what is just, and our responsibility is growing with our international stature.

November month is the month of festivity and high spirits. One should be reminded of the values attached to these festivities, and my warm wishes are with you.

Stay Blessed!

## GS CONNECT

It gives us immense pleasure to present an innovative approach to master current affairs. Current is a passing wind and diverse issues happen at the same time. It is to an extent chaotic. Newspapers, magazines and various other sources report the chaos per se. With our experience of current affairs, we have tried to give "the current" a medium to travel. It is the syllabus of the UPSC with its components that are the medium through which the "Current is Passed" to the readers. **Ever since the new syllabus of the UPSC came into existence, current has been gaining significance both at prelims as well as mains examination.** This book is meant to cover current affairs and related questions arising from those events. We have not only covered the current events for their factual contents but also presented it in such a way that any question asked from that topic gets covered. Moreover, topics are also "peppered" with the relevant facts/key concepts that are related to the theme. We have also given **questions for practice both, subjective and objective**, so that candidates are oriented to the examination mode. It is a collection covering myriad sources yet in a manageable size. To use this book, we recommend you to master the components of the General Studies (GS) syllabus as broken into rows and columns (provided in the subsequent page). Each cell comprising the portion of GS becomes the connection for the current and every news subsequently covered guides the reader to the address of the syllabus. It is logical to expect that the same issue may be connected to more than one topic of the syllabus. Further, the news also has some additional vistas opened for the readers by adding a box with a title **"PEPPER IT WITH"** where we expect the students to build further around the theme. We are also trying to reach the remotest part of the country with our spirit and zeal of **"Mains Answer Writing"**, which has been admired by students, CSE rank holders and other scholars. Continuing in line with the effort, we have started **programmes like Navigator, NEEV, CARE, AWSDP plus, Destinaire etc.** When it comes to evaluation, we are altogether at a different level. We are also reaching every nook and corner with this expertise for the aspirants of CSE. Now you can write a Mains Answer and get it evaluated from our Expert Team and can get Feedback. **Drop a mail at [evaluation@ksgindia.com](mailto:evaluation@ksgindia.com) for registering yourself in our race to perfection.** Don't wait, it's your golden chance to crack this exam and fulfill your passionate dream.

Team KSG

S. No.	GS -I	GS- II	GS- III	GS-IV
1	Indian Culture-Art Forms, Literature and Architecture from ancient to modern times.	Indian constitution- Amendments, acts and bills.	Various measures to boost Indian economy- planning, policies, management	Ethical issues related to family society, education, Corruption etc.
2	Indian History significant events, personalities, issues and the Freedom Struggle.	Legislative, executive and judicial processes.	Government budgeting and issues related to budget.	Ethics in public and private administration
3	Post independence issues, National boundary and disputes.	Constitutional, non-constitutional, judicial, quasi-judicial, administrative and other types of bodies.	Agriculture, animal husbandry and transport	Issues
4	Indian society features, issues, globalization and diversity	Federal structure and local bodies. Their powers and functions.	Food security- measures to boost food security and food processing. Issues related to land- land reforms	Related laws and rules
5	Women - issues and developments	Government policies and various governance issues like transparency, accountability and – governance	Industries and infrastructure- their growth and investment model	Governance/e- Governance
6	Urbanization – problems and remedies	Committees and schemes.	Space and technology, IT space, robotics and computer	Ethics in international issues
7	Distribution of industries and resources – India and world	Non-government issues, self-help groups and role of civil society	Disease, biotechnology and human welfare	Personalities and their teachings
8	Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc	Vulnerable sections of our society and social sector issues like Poverty, Hunger, Education, and their initiatives.	Innovations, intellectual property, Awards, POI and other important aspects of S&T	Other important topics
9		International Relation- India and other countries, various Indian and international agreements, effects of other countries on India and international institutions.	Environment; government initiatives, various judgment, pollution, degradation and conservation efforts	
10			Disaster & Disaster Management	
11			Challenges to internal security, Various Security forces and agencies and their mandate. Cybersecurity; money laundering and its prevention.	



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## POLITY &amp; GOVERNANCE

## Women Reservation Act (Nari Shakti Vandan Adhiniyam) 2023

## News Excerpt:

The President of India has given assent to the **Constitution (106<sup>th</sup> Amendment) Act, 2023**, also known as **Nari Shakti Vandan Adhiniyam 2023**, which provides **1/3rd reservation for women** in Lok Sabha, State Legislative Assemblies, and the Legislative Assembly of the National Capital Territory of Delhi.

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## Key highlights of the Act:

- The **33% reservation for women** in **Lok Sabha** and **Assemblies of State** and **National Capital Territory** of Delhi. Similar reservations are to be provided within the seats reserved for SC and ST.
- The Act states that the reservation will continue for **15 years**. However, it shall continue till such date as determined by a law made by Parliament.
- It **amends Article 239AA** (Special provisions with respect to Delhi) and also **inserts** three new articles.
  - **Articles 330A and 332A**- These introduce 33% in Lok Sabha and the state legislative assemblies, respectively.
  - **New Article – 334A**: Reservations shall come into effect once the delimitation is undertaken after the relevant figures for the first Census have been published. The rotation of seats for women shall take effect after each subsequent **delimitation exercise** as determined by a law made by Parliament.
- The Act does **not** require **ratification by the states** since it does not change the actual number of seats that the states have in Parliament. So, state representation in Parliament remains unaffected.
- The Act calls for **3 steps**: Census > Delimitation > Quota.

## Constitutional amendments needed to operationalize women's reservation:

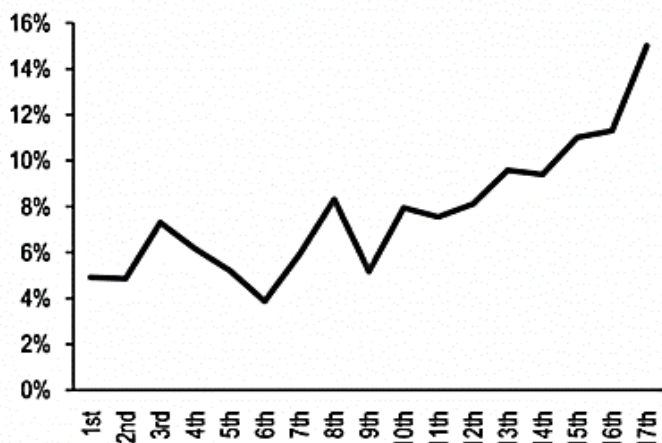
- Article 82 provides for the **readjustment** of constituencies (number and boundaries) of both Lok Sabha and state Assemblies after every Census.
- Article 170(3) deals with the **composition** of the Legislative Assemblies.

- **Central level:**
  - Currently, **15%** of **Lok Sabha MPs** (Members of Parliament) and **13%** of **Rajya Sabha MPs** are women.
  - India has had just **one** female **Prime Minister** and **two** female **Presidents** since its independence.
- **State level:**
  - No state has more than 20% women MLAs (Member of Legislative Assembly).
  - **Chhattisgarh**- highest with 18% women MLAs.
  - **Himachal Pradesh**- just one MLA, **Mizoram**- none.
  - So far, only **15** women have served as **Chief Ministers**.
- **International level:**
  - **Global Gender Gap Report**: In the 2023 edition, India ranks 127<sup>th</sup> out of 146 countries.
  - **Sweden, Norway**, and **South Africa** have more than **45%** women representation in their national legislatures.
  - According to UN Women, as of September 2023, 28 women were serving as elected heads of State and/or of Government in 26 countries (out of a total of 193 UN member states).

## Evolution of political representation of women:

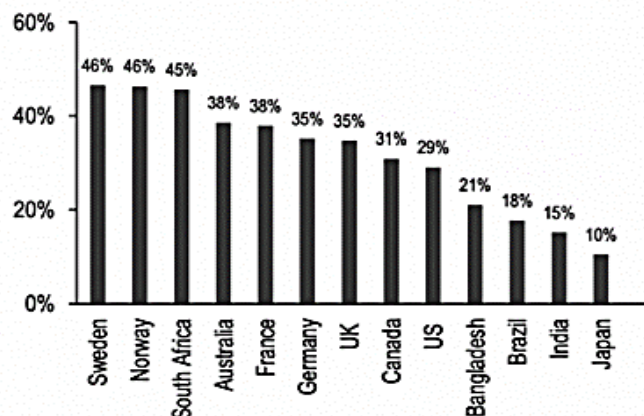
- In 1971, the **National Action Committee on the Status of Women in India**, in its report "**Towards Equality**", discussed the receding political representation of women in India.
- In 1987, the **National Perspective Plan for Women** recommended reserving seats for women in elected bodies.
- In 1993, the Constitution's **73rd** and **74th Amendment Acts** mandated the reservation of 1/3<sup>rd</sup> of seats for women in **Panchayati Raj Institutions** and **Urban Local Bodies**.
  - States such as **Bihar, Jharkhand, Maharashtra, Andhra Pradesh, Kerala**, and **Chhattisgarh** have made provisions to ensure **50% reservation** for women in local bodies.
- **National Policy for the Empowerment of Women (2001)**- reservation to be considered in higher legislative bodies.
- **Bills** for reservation of **women** have been introduced in **1996, 1998, 1999**, and **2008**.
  - The **first three Bills lapsed**, and the Rajya Sabha passed the 2008 Bill but **lapsed** due to the dissolution of the 14th Lok Sabha.

Percentage of women MPs in Lok Sabha



Sources: Gender-Wise Statistical List, Lok Sabha, 2019; PRS.

Percentage of women in some national legislatures



Sources: Inter-Parliamentary Union Website as accessed on September 19, 2023; PRS.

### Report on the Status of Women in India, 2015:

- There is negligible representation of women in Parliament and state assemblies and in decision-making positions of political parties.
- This report recommended reserving at least 50% of seats for women in local bodies, state legislative assemblies, Parliament, ministerial levels, and all government decision-making bodies.

### Purpose of Reservation:

- The Convention on the Elimination of All Forms of Discrimination Against Women** provides for eliminating discrimination against women in political and public life.
  - While India is a signatory to the Convention, discrimination in matters of representation of women in decision-making bodies has continued.
- Under-representation:** If a group is not represented proportionately in the political system, its ability to influence policy-making is limited.

- The number of women MPs has increased from 5% in the first LS to 15% in the 17<sup>th</sup> LS, but the number continues to be quite low.

- A 2003 study about the **effect of reservation on women in panchayats** showed that women elected under the reservation policy invest more in the public goods closely linked to women's concerns.
- The Standing Committee on Personnel, Public Grievances, Law, and Justice (2009)** noted that the reservation of seats for women in local bodies has enabled them to make meaningful contributions. **E.g., Sampatiya Uikey belonging to the Gond tribe, a former Sarpanch from Tikarwara Gram Panchayat of Mandala district, a Zila Panchayat President and presently a member of Rajya Sabha, is an exemplary role model of PRI Women in a leadership role.**
- The Inter-Parliamentary Union (2022)** has noted that legislated quotas have been a decisive factor in women's representation.

## IMPACT OF WOMEN IN LEGISLATURE

01

**Better economic performance**

Raise economic performance by 1.8% points per year.

02

**Fewer Criminal charges**

Only 1/3rd as likely as men to be having pending criminal charges when entering office.

03

**Less corrupt**

Material assets increase by 10% points lesser than male counterparts.

04

**Get work done faster**

Share of incomplete road infra projects were 22% points lesser.

05

**Conscientious**

Less vulnerable to political opportunism.



## Arguments in favour of Women's Reservation

- **Gender inequality and discrimination:** The political empowerment of women is rightly perceived as a **tool** for eliminating **gender inequality, discrimination, crimes against women**, low participation of women in the **workforce**, low **nutrition** levels, and a skewed **sex ratio**.
- **Expanding economic opportunities:** More women must be drawn into **decision-making processes** to enable them to explore **new work opportunities** in a **fast-growing economy**, going beyond traditional stereotypes of women's work and roles. A **2003 study** about the effect of women's reservation in panchayats showed that women elected under the reservation policy **invested more** in the **public goods** concerning **women**.
- **Youth aspirations:** The reservation shall **catalyze** a **social dynamic** that would address the **aspirational effervescence** of young women.
- **Countering fundamentalism:** Women's reservation would also entail confronting **fundamentalist** and **divisive agendas** and ensuring that women get an opportunity to form a strong **lobby** in the Parliament.

## Arguments against Women's Reservation

- **Perpetuate inequality:** Separate constituencies for women might narrow their outlook and perpetuate unequal status as they will not be seen as competing on merit.
  - For instance, in the Constituent Assembly, Renuka Ray argued that when seats are reserved for women, their consideration for general seats does not usually happen, however competent they may be.
- **Sideline electoral reforms:** Reservation would not lead to political empowerment of women unless larger issues of electoral reforms, such as criminalization of politics, internal democracy in political parties, etc. will be addressed.
- **Ineffectiveness of local body reservation:** Providing reservations to women in local bodies may not always prove beneficial as **proxies** and **"panchayat patis"** (husbands of elected leaders) hold power and do the work.
- **Cultural and customary concerns:** It will **interfere** with the customary laws and ideal family setup, especially concerning **Scheduled Tribes**.
  - **E.g.-** Women's reservations in Urban Local Bodies faced many hues and cries in Nagaland.

## Way forward:

- **Timely implementation:** Women's Reservations should be **delinked** from the next population **census** and **delimitation** exercise and implemented immediately to represent an adequate number of women in Parliament.
- **Training and support programs:** The Government's tailored training and support programs will **help** women elected representatives from lower castes and class **overcome their disadvantages**.
- **Strengthening democracy and society:** The Women's Reservation

## Alternative ways of representing Women in politics:

- Reserving positions for women **within political parties**.
- Introducing **dual member constituencies** where each constituency elects **two candidates**, one of whom is a woman.

## PEPPER IT WITH:

Census, Delimitation, Article 239 AA, Reservation in Parliament as well as State Assemblies, Inter-Parliamentary Union, Parliamentary Standing

Act should not only focus on the reservation but also address **gender equality** in politics and **historical injustices**, empower women and ensure their **voices** are **heard**.

- Incorporate the **Standing Committee on Personnel, Public Grievances, Law, and Justice recommendations**:
  - Reservation for women belonging to Other Backward Classes (OBCs) at an appropriate time.
  - Working out the modalities to reserve seats for women in Rajya Sabha and State Legislative Councils.

## Supreme Court: Same-sex marriage cannot be legalized

## News Excerpt:

By majority opinion, the five-judge Constitutional Bench of SC ruled in a 3:2 verdict against giving constitutional validity to same-sex marriages.

## Background:

- Legal rights for **LGBTQ** (lesbian, gay, bisexual, transgender, and questioning (or queer) **individuals in India** have grown over the last decade, with most of these developments brought about by the Supreme Court's intervention.

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### Section 377 of the IPC

"Whoever voluntarily has carnal intercourse against the order of nature with any man, woman or animal shall be punished with imprisonment for life, or with imprisonment of either description for a term which may extend to ten years, and shall also be liable to fine."

### Civil union

This legal status allows same-sex couples specific rights and responsibilities usually conferred upon married couples. **Although resembling marriage, it does not**

- In a landmark **decision in 2018**, the Supreme Court of India **decriminalized homosexuality** by **striking down Section 377** of the **Indian Penal Code**.
- The Supreme Court of India began hearing petitions seeking the legalization of **same-sex marriage** on April 18, 2023.
- The CJJ concludes that the court can neither strike down or read words into the Special Marriage Act (SMA) 1954 to include same-sex members within the ambit of the SMA 1954. **Recognizing LGBTQ marriage is within the scope of the Government.**
- However, at the same time, the SC holds that queer persons have an equal right and freedom to enter into a "union".
- All five judges on the Bench agreed that there is **no fundamental right to marry** under the Constitution.

### Other laws/Acts related to LGBTQ:

#### 1. The Transgender Persons (Protection of Rights) Act, 2019:

- **The Act bans discrimination against transgender people in educational establishments and services, employment, healthcare services, and access to the "use of any goods, accommodation, service, facility, benefit, privilege or opportunity dedicated to the use of the general public or customarily available to the public".**

#### Challenges of the Transgender Act, 2019:

- The transgender community has stressed the difficulty of obtaining a certificate and the lack of awareness and sensitivity among local public officials.
- The community also criticized the inequality inherent in the vast differences in punishment for the same crime, such as sexual abuse, committed against a transgender or cisgender

- Moreover, it also gives them the right to movement, "**reside, purchase, rent or otherwise occupy any property,**" the opportunity to stand for or hold public or private office, and in Government or private establishments.

#### 2. Article 15 of the Constitution of India:

- The State shall **not discriminate against any citizen based on religion, race, caste, sex, or place of birth.**
- No citizen shall, on grounds only of religion, race, caste, sex, place of birth, or any of them, be subject to any disability, liability, restriction, or condition with regard to
  - Access to shops, public restaurants, hotels, and places of public entertainment; or
  - The use of wells, tanks, bathing ghats, roads and places of public resort maintained wholly or partly out of State funds or dedicated to the use of the general public.

#### 3. Navtej Singh Johar v. Union of India 2018 Case:

The Supreme Court ruled that **'the Indian Constitution bans discrimination based on sexual orientation via the category of "sex."** LGBTQ community **"are entitled, as all other citizens, to the full range of constitutional rights, equal citizenship, and "equal protection of law."**

#### 4. National Legal Services Authority v. Union of India (2014):

Similarly, in this case, the Supreme court held that **discrimination based on gender identity is constitutionally prohibited.**

#### About Special Marriage Act (SMA) 1954:

- Marriages in India can be registered under the respective personal laws: **Hindu Marriage Act, 1955, Muslim Personal Law Application Act, 1937, or the Special Marriage Act, 1954.**
- The Special Marriage Act of 1954 has provisions for **civil marriage for the people of India and all Indian nationals in foreign countries**, irrespective of religion or faith, followed by either party.
- It allows people from two different religious backgrounds to come together in the marriage bond.
- It lays down the procedure for **solemnization and marriage registration**, where the husband or wife or both are not Hindus, Buddhists, Jains, or Sikhs.
- Being a **Secular Act**, it plays a key role in liberating individuals from traditional marriage requirements.

Legal arguments in favour of same-sex marriage	Legal arguments against same-sex marriage
<ul style="list-style-type: none"> <li>• <b>Citizens with equal rights:</b> Non-heterosexual couples are also equal citizens of the country and deserve the same rights as cisgender heterosexual people. Queer people demand equal rights for marriage, horizontal reservation, and protection from natal families.</li> <li>• <b>Right to marry:</b> India was an original signatory to the Universal Declaration of Human Rights (UDHR). Under the UDHR, the right to marry is a human right. However, the Indian Constitution does not explicitly mention the right to marry. Therefore, the court must address denying the fundamental right to marry a person of one's own choice.</li> <li>• <b>Marriage laws on 'social' and 'circumstantial' infertility:</b> The two terms of infertility were coined to describe a woman who did not have children despite no medical complications and are used now in the context of queer people too. If both parties know that anyone of them is impotent, there cannot be a case of taking away their rights merely because they are queer.</li> <li>• <b>Previous judgment of SC:</b> During the Sabarimala case, the apex court said that 'religion must give way to Constitutional morality', though a review of the judgment is pending. Secondly, if the court recognized the Right to marry as a fundamental right (like it did in the case of privacy in the 2017 Aadhar ruling), it puts an obligation on the State to protect this right.</li> <li>• <b>A legitimate legal need:</b> Legal recognition of queerness and love should be supported by the State and judiciary. Seeing the demand, the notions of conventional family and traditions need to be broadened, and the notion of acceptability and respectability be demolished.</li> <li>• <b>Global Practice:</b> It is legally recognized in 34 countries.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Against natural law:</b> Marriage is described as the union of a man and a woman, and changing that would go against natural law and threaten both the institution of marriage and the family's role in keeping society together. Gay people can have civil unions, but marriage is a step too far.</li> <li>• <b>All rights have limitations:</b> Arguing for equal rights in this situation makes no sense. If there were no limitations, polygamy and marriages between relatives (especially cousins) would also have to be allowed.</li> <li>• <b>Will destroy the 'family concept' in society:</b> Our laws pertain to marriages that necessitate positive procreation. It is observed that children raised by lesbians or homosexual men are more likely to develop gender and sexual abnormalities. Homosexuality could raise a class of children who live apart from their mother or father.</li> <li>• <b>Legal structure with religious foundation:</b> Marriages in India are governed under the Hindu Marriage Act of 1955, the Parsi Marriage and Divorce Act of 1936, the Christian Marriage and Divorce Act of 1957, and Muslim Personal Laws, all lacking a rigorous statutory framework. Except for the Special Marriage Act (SMA) of 1954, all marriage laws recognize marriages between a man and a woman.</li> <li>• <b>Boundaries established by the laws:</b> The <b>National Commission for Protection of Child Rights (NCPCR)</b> stated that same-sex marriage would violate the terms of the Juvenile Justice Act. The <b>Juvenile Justice Act of 2015</b> makes it illegal for a single male, let alone two men, to adopt a girl child.</li> <li>• <b>Adoption:</b> Some argue that when queer couples adopt children, it can lead to societal stigma, discrimination, and negative impacts on the child's emotional and psychological well-being.</li> </ul>

## VARIOUS VIEWS ON SAME-SEX MARRIAGE

What is Union government's view on same-sex marriage?



- The Centre's fundamental argument is that same-sex marriage is **not recognized in Indian traditions, ethos, culture, or societal conceptions** of the institution of marriage. Marriage, it has been suggested, is a sacrament between a biological male and a biological female to make a holy union in order to have children.
- According to the Centre, 'creation or recognition of a new social institution **cannot be claimed as a matter of right or choice, much less a fundamental right**. The right to personal autonomy does not include the right to have same-sex marriage recognized.

What does the LGBTQ wants?



- Same-sex couples and LGBTQ activists are making a case that the government's refusal to acknowledge same-sex marriage is a violation of the Constitutional right to equality and the privileges that married heterosexual couples enjoy.
- The right to marriage for non-heterosexual couples is implied in **Articles 14, 15, 16, 19, and 21**. This right is particularly significant in light of the SC's previous rulings in the cases of **Navtej Singh Johar vs. Union of India** and **KS Puttaswamy and Anr. vs. Union of India**.

How did Supreme Court respond?



- According to the Supreme Court of India, same-sex marriages **cannot be considered an urban elitist** concept simply because more people from cities are coming out of the closet.
- The Supreme Court had previously reserved its decision on a slew of petitions seeking the right to marriage for members of the LGBTQ+ community under the **Special Marriage Act of 1954**.

**Way forward:**

- The demand for recognizing same-sex marriage cannot be dismissed out of hand, but neither can the view that is opposed to it.

**DID YOU KNOW?**

As of 2023, marriage between same-sex couples is legally performed and recognized in how many countries?

- Same sex marriage will become legal in the 35<sup>th</sup> country, Estonia, from the 2024 year.
- Denmark was the first country to legalize civil unions for same-sex couples in 1989.
- Sweden comes in first place as the safest country for the LGBTQ.
- The legislature can consider the broader views and voices of the rural, semi-rural, and urban populations, religious denominations, personal laws and customs, and the impact of same-sex unions on other marriage laws, thus, it would be better if the law comes through the legislature and not the judiciary.
  - Several laws enacted in the recent past reflect demand from society, **for example, the tightening of rape laws post the Delhi 2012 rape.**
- Hence, every stakeholder involved in this must be entitled to represent their views, respecting our Constitutional philosophy. This can be done by recommending our Parliament and legislatures to debate and decide on the issue.

**PEPPER IT WITH:**

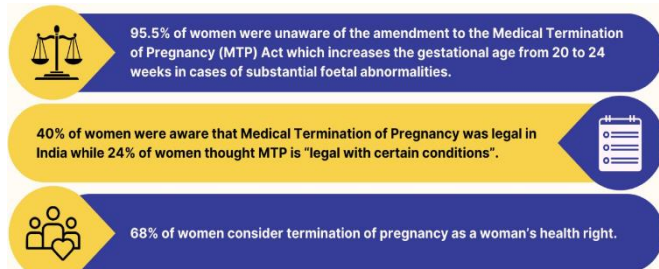
Rights of Transgenders in India, IPC, UN Human Rights Declaration, Personal Laws, Article 21

**Rights of the unborn child****News Excerpt:**

The **Supreme Court** declined permission to a married woman to terminate her over 26-week pregnancy after the **AIIMS Medical Board** had confirmed that the pregnancy was not a cause of immediate danger to her life or the foetus. It has raised crucial questions on the decisional autonomy of a woman to abort and the legislative framework.

**About:**

- According to the study by the Foundation for Reproductive Health Services (FRHS) – an NGO in Delhi, Maharashtra, Rajasthan and Uttar Pradesh –



- The **three-judge Bench** headed by Chief Justice of India (**CJI**) **D Y Chandrachud** said that the women cannot claim an absolute overriding right to abort.
  - Section 5** of the **MTP act** allows abortion only if the pregnancy poses an actual, physical and immediate danger to a woman's life and health.
- The Bench observed that there are rights of the unborn child too, and that a woman's autonomy is also important. The Bench said that the unborn child's rights should also be balanced.
- The issue is of pro-life versus pro-choice debate. The petitioner argued that she was asking for her rights under Article 21 (protection of life and personal liberty), which overrides the MTP Act.

**Law on abortion:**

- In the 1960s, in the wake of a high number of induced abortions taking place, the Union government ordered the Constitution of the **Shantilal Shah Committee** to deliberate on the **legalization of abortion in the country**. To reduce maternal mortality owing to unsafe abortions, the Medical Termination of Pregnancy (MTP) Act was brought into force in 1971. This law is an exception to the Indian Penal Code (IPC) provisions 312 and 313 and sets out the rules of how and when a medical abortion can be carried out.
- Under Section 312 of the IPC, a person who "voluntarily causes a woman with child to miscarry" is liable for punishment, attracting a jail term of up to three years or a fine or both, unless it was done in good faith where the purpose was to save the life of the pregnant woman. This section effectively makes unconditional abortion illegal in India.
- Section 313 of the IPC states that a person who causes a miscarriage without the consent of the pregnant woman, whether or not she is in the advanced stages of her pregnancy, shall be punished with life imprisonment or a jail term that could extend to 10 years, as well as a fine.
- The Medical Termination of Pregnancy Act (**MTP Act**) allows the termination of pregnancy in **three stages** –
  - Stage 1:** Termination of pregnancy **up to 20 weeks** is allowed on one doctor's advice.
  - Stage 2:** If a pregnancy is **20-24 weeks**, the right to seek abortion is determined by two

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registered medical practitioners as an exception, only under certain categories like forced pregnancies, rape in case of minors or sexual assault, women with disabilities, change in the marital status of women during pregnancy.

- **Stage 3: After 24 weeks**, a medical board must be set up in "approved facilities", which may "allow or deny termination of pregnancy" only if substantial foetal abnormality exists.

#### ● **Concerns:**

- The **decision** to terminate after 20 weeks is shifted to **doctors** and not the woman.
- The **legal framework** on reproductive rights **tilts** to the side of the **woman's autonomy** to decide and choose more than the rights of the unborn child.
- The Indian legal scenario is unclear on whether the foetus has similar rights and is a living being.

The landmark 1973 US Supreme Court verdict in **Roe v Wade** that made **abortion** a **constitutional right** allowed abortion **up to the point** of **foetal viability**, that is the time after which a foetus can survive outside the womb.

#### Concept of Foetal viability:

- It means the **ability** of the **foetus** to survive post-delivery. Foetal viability in the 1970s was pegged at **28 weeks**, which is now with scientific advancement lower at **23-24 weeks**.
- Abortion is lawful or accessed with **less difficulty** before the point that a foetus is deemed viable. After viability, abortion is lawful in a **narrower** set of circumstances.

In 2005, the **Rajasthan High Court in Nand Kishore Sharma vs Union of India** rejected a challenge to the constitutional validity of the MTP Act on the grounds that it violates the **fundamental right to life of an unborn child**.

The right of an unborn child has formed the basis of legislation that deals with **succession** or the law banning the **sex determination** of the foetus.

**Section 416 of CrPC** provides for postponement of the death sentence awarded to a pregnant woman.

- Foetal viability is determined based on **physical characteristics** indicating if the foetus has reached an expected stage of development and the general appearance, including **cyanosis**, the **placental blood** and **cord**, and **skin colour**.
- While courts have read the MTP Act liberally, the test of "foetal viability" as a **benchmark** for consideration of abortion is **new in India**.

#### Reproductive rights of Women:

- Access to safe and legal abortion is a matter of **bodily autonomy** - deciding the number and spacing of children and enjoying the benefits of scientific progress and its availability.
  - United Nations Population Fund (UNFPA)'s State of the World Population Report 2022- Between 2007-2011, 67% of abortions in India were classified as unsafe.
  - Unsafe abortions are the third leading cause of maternal mortality in India, and close to 8 women die from causes related to unsafe abortions each day.
- **Paramount** consideration should be given to the mother, her **conscious decision** to not have the baby should be **respected**.
  - **According to the UNFPA's report - one in seven unintended pregnancies in the world takes place in India. The unintended pregnancies and subsequent abortions are intimately linked with the overall development of the country.**
- Forcing a woman to continue a pregnancy endangering her health would **violate her**

Women **do not have an absolute right of autonomy** to exercise their reproductive rights, they can be curtailed by parliament by determining the conditions under which abortion is permissible.

If there is a viable baby, the **state has the responsibility** to protect the life of the baby, especially since a medical opinion suggests a **chance of survival**.

**MTP Act 2021**, extended the deadline for abortion to 24 weeks in exceptional circumstances. **Beyond** that termination is allowed only if necessary **to save** the life of the **mother** or in cases of a **fatal deformity** detected in the foetus.



Figure: Rights of the Unborn



**fundamental rights**, i.e., non-discrimination, equality, life, health, and privacy.

- The **gestation period** in pregnancy as a basis to allow or deny abortion is an **artificial construct**.
  - The **2022 WHO Abortion Care Guidelines** recommend against laws prohibiting abortion based on the gestational age limit.
- Forcing a pregnant individual to carry an unwanted pregnancy to full term can result in severe **psychological trauma** and may be seen as a form of **torture**, infringing upon her **mental health**.
  - Earlier this year, the **SC** granted permission for abortion primarily based on the **"risk to mental health"** of the pregnant person.
  - In 2022, the **Kerala High Court** allowed a later-term termination on mental health grounds.

#### Way forward:

There is a need for a **balanced decision**. On one side, it is imperative to ensure that abortion remains safe, legal, and affordable. In

contrast, the argument against it argues that this will kill the unborn baby, especially the girl child. Strict law **enforcement** and

**monitoring** would achieve multiple goals simultaneously, leading to a humanitarian approach.

#### PEPPER IT WITH:

State of World Population Report, Government Schemes for Pregnant Women, WHO Abortion Guidelines, Shantilal Shah Committee, PC-PNDT Act.

## Caste Census in Bihar

### News Excerpt:

The **Bihar government** has released the results of its recently concluded survey of castes in the State, which reveals that Other Backward Classes (OBCs) and Extremely Backward Classes (EBCs) constitute more than 63% of the population of Bihar.

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#### A look at the Bihar caste census:

- A resolution on the caste-based survey was passed in the Bihar legislature through consensus. The survey has not only considered **one's caste** but also **one's economic status**, which would help the Bihar government **to devise further policies and plans for the development** of all classes.
- Key findings:**
  - According to the survey, Bihar's population is 13.07 crore, compared to the 10.41 crore recorded in the 2011 census.

- Hindus** comprise 81.99% of the population, and **Muslims** 17.72%.
- The populations of **Buddhists, Christians, Sikhs, Jains, and other religious denominations** are minuscule.
- The **EBCs** are the biggest social group, comprising 36.01% of the State's population. The **OBCs** number 27.12% and the Scheduled Castes (SCs) 19.65%.
- Scheduled Tribes (STs)** number only 1.68%, the bulk of the tribal population having become part of Jharkhand after the bifurcation of the State in 2000.
- However, the **"unreserved"** category comprises 15.52%.

#### Background History of Caste-based Census:

- Every Census in independent India from 1951 to 2011 has published data on Scheduled Castes and Scheduled Tribes but not on other castes. Before that, every Census until 1931 had data on caste.
- The **Kaka Kalelkar Commission in 1953** identified 2,399 backward castes, including 837 most backward castes. The Committee also **recommended a caste-based Census in 1961**. However, the recommendation was rejected.
- Caste-based census year-wise is shown in the table:**

YEAR	OUTCOME
1872	Classified population into Brahmins, Kshatriya, Rajputs, other castes based on profession, native Christians, Aboriginal tribes, and semi-Hindu tribes.
1901	1,642 castes
1931	<b>4,147 castes (detailed caste census was held)</b>
1941	Census curtailed due to World War II
2011	Over 46 lakh caste names, sub-castes, surnames and gotras. Caste numbers were withheld, citing inaccuracies.

#### What is a Caste-based Census?

- Socio-Economic and Caste Census (SECC)** or the **Caste-based Census** is a comprehensive study examining the socio-economic status of rural and urban households. It also gathers information about the caste distribution within the population.
- Why Caste-based Census is needed now?**
  - India runs the **world's largest affirmative welfare programme** based on caste identity.
  - Reservation for education and employment in government jobs** are provided based on caste identities.

- In such a scenario, the absence of fresh caste census data results in unequal justice. **For example**, the caste estimates of 1931 are being projected for formulating present welfare policies in 2021.
- The highest reservation mandate for the Other Backward Classes (OBCs) at 27% is caste, according to the **Mandal Commission** based on caste.

#### Significance of caste-based census:

- **To address inequalities:** As per the *Oxford Poverty and Human Development Initiative (OPHI)* estimate, while STs, SCs and OBCs comprised around 77.6% of the country's poor in 2005-06, this share increased to almost 84% in 2015-16.
  - The *Sachar Committee report (2006)* estimated that 31% of Muslims were 'Below the Poverty Line'.
  - This indicates that discrimination and exclusion based on caste vis-a-vis STs, SCs, OBCs, and religion (particularly Muslims) have a causal relationship with poverty and deprivation.
- **Enumerating marginalized sections:** According to the recent Bihar Caste-census, 15.52% were unrecognized due to non-registration. This hampers the equity share during developmental policies and programmes. Enumerating marginalized sections will also help to reveal privileged sections of society and phase out them as a beneficiary.
- **Database for Policy-making:** A caste census can help identify disadvantaged groups and bring them to the forefront of policy-making. By understanding the distribution of different caste groups, targeted policies can be implemented to address social inequality and uplift marginalized communities.

#### Difference between Caste census and Socio-Economic Census:

	Caste census	Socio-Economic Census
1	Conducted for targeting particular communities.	Conducted universally through all households.
2	It provides a portrait of a particular section of society.	It provides the proportion of various sections in the society.
3	The data is usually kept confidential.	The data is not kept confidential.
4	Conducted for the first time in 1931.	Conducted for the first time in 1931. (Economic Census, although was taken in 1977)

#### What are the challenges of a Caste-based census?

- **Nurturing of Political agendas:** The data can be used by the political leaders or the parties during their elections for their political gains. This will

encourage caste-based mobilizations in India. Although India seeks to eliminate the caste-based challenges faced, this caste-based Census would only strengthen it.

- **Limits our National interests:** There have been concerns that counting caste may solidify or harden individual identities. Due to these repercussions, nearly a decade after the SECC, a sizable amount of its data remains unreleased or released only in parts.
- **Evolution to more demands for reservations based on caste divisions:** The caste census may increase demand for larger or separate quotas. For instance, Patels, Gujjars, Jats and other castes demand reservations. The caste census might induce more such demands in future.
- **Accounting the database:** Enumerating the caste-based data in India is a complex task as the caste is optionally used as a passive resistance. The same caste is spelt in different ways in different states, which is another challenge in a huge populous country like India. Also, one caste may be extremely backward in one State and can be backwards in the other State.
- **Stigmatization in the overall Population:** Disclosure of caste identities could lead to individuals being stigmatized or discriminated against based on preconceived notions right from childhood up till old age. This can deter honest principles and undermine the very purpose of equality.

#### Way Forward:

- **Sub-categorization of Backward classes:** Instead of going behind the caste-based Census, the Government can sub-classify the Backward Classes, which is already carried out in the states of Tamil Nadu, Andhra Pradesh, West Bengal etc.
  - This will benefit intended beneficiaries since the Government has appointed **Justice G Rohini Panel on Sub-categorisation** of OBCs.
- **Technology interventions:** The Government can use technologies like Artificial Intelligence and machine learning to assess and condense the SECC data into meaningful categories.
- **National Integrity stands at the top:** Any census must aim to **gradually eliminate castes** by uplifting the socio-economically marginalized sections of society.

#### PEPPER IT WITH:

Census, Backward Classes, Kaka Kalelkar Commission, Sachar Committee, Reservation, Important Judgements.

## Landmark Judgments after Independence related to the Reservations:

- **State of Madras Vs. Champakam Dorairajan, 1950:**
  - **Judgment:** The court ruled that caste-based reservation violates Article 15(1) of the Constitution. It said reservation was an exception to equality and hence violated the right to equality.
  - **It's Implication:** First Constitutional Amendment.
- **M. R. Balaji Vs. State of Mysore, 1963:**
  - **Judgment:** The Mysore government's 68% reservation in college admissions was ruled excessive and unreasonable and was capped at 50%.
  - **Its Implications:** The SC in the Indra Sawhney case imposed the 50% limit on reservations in 1992.
- **Indra Sawhney Vs. Union of India, 1992:**
  - **Judgment:** The court upheld separate reservations for OBCs but excluded the "creamy layer". It rejected economic reservations and set a ceiling of 50% for all kinds of reservations.
  - **Its Implications:** The case was pressed again in 1999, and the SC reaffirmed the creamy layer exclusion and extended it to SCs and STs.
- **M. Nagaraja Vs. Union of India, 2007:**
  - **Judgment:** Upheld 77<sup>th</sup> Amendment, which extended reservations for promotion in employment for SCs and STs.
  - **Its Implication:** The court ruled that promotions should satisfy the triple test of backwardness, representation and the need for efficiency. Backlog vacancies were excluded from the 50% limit.
- **I. R. Coelho (deceased) by LRS. Vs. State of Tamil Nadu, 2007:**
  - **Judgment:** SC advised the Tamil Nadu government to follow a 50 percent reservation limit
  - **Its Implications:** Tamil Nadu reservations were put under the 9<sup>th</sup> schedule of the Constitution, which the court had already upheld.
- **P. A. Inamdar Vs. State of Maharashtra:**
  - **Judgment:** Reservations cannot be enforced on private institutions which do not receive government funding.
  - **Its Implications:** Led to the 93<sup>rd</sup> Constitutional Amendment Act, which introduced Article 15(5).
- **Janhit Abhiyan Vs. Union of India, 2022:**
  - **Judgment:** Upheld 103<sup>rd</sup> Amendment, which introduced 10% reservation for the Economically Weaker Section in education and public employment.
  - **Its Implications:** A new reservation regime was created.

## Prison Deaths

## News Excerpt:

Recently, the Supreme Court-appointed Committee on Prison Reform, led by Justice (ret.) Amitava Roy emphasized that the **major cause of "unnatural death" was suicide**. The committee discovered that 660 of the 817 fatalities that were not natural were suicides.

## Key findings of the Supreme Court Committee on Prison Reform Report:

The committee report is based on the data provided by Prison Statistics India (PSI) report from 2017-2021 published by the National Crime Record Bureau (NCRB).

## Constitutional Provisions for Under trials:

**Article 21:** Right to Life with Dignity

**Article 39A:** Right to Free legal aid

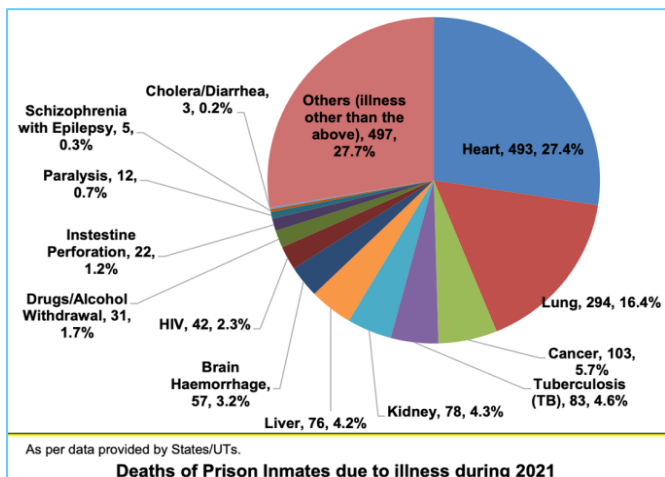
## Report Findings:

- Custodial death has steadily increased since 2019.
- 2021 recorded the highest number of deaths so far.
- About 80% of the deaths are due to suicide.
- Out of 817 Unnatural deaths, 660 were suicides.
- Uttar Pradesh has recorded the highest number of suicides (2017-2021), followed by Punjab and West Bengal.

## Classification of Prison Death:

The **Prison Statistics India Report (PSI) by the National Crime Record Bureau (NCRB)** has classified prison death into two categories:

- **Natural Death:** Death due to ageing and illness. Diseases like Heart Conditions, HIV, Tuberculosis and Cancer. Natural disease has increased from 1424 in 2016 to 1879 in 2021.
- **Unnatural Death:** like Suicide, death due to inmates, assault by outside elements, firing, negligence, accidental deaths, etc. Suicide was seen to be the major cause of unnatural death among inmates out of the other reasons.



### Need for Prison Reforms:

Currently, the prisons in India are facing the following challenges:

- **Overcrowded Prisons:** The national average occupancy rate in prisons across India is 130% (as of 2021). States like Uttar Pradesh and Delhi have a percentage touching almost 200%.
- **Under trials:** According to NCRB, the under-trial occupancy rate is about 76% due to their inability to pay fines.
- **Condition of women:** As per NCRB, women prisoners constitute 4.1% of the total prisoners (approximately 22,000). They encounter difficulties like custodial rape, poor dietary intake, and inadequate hygiene and sanitation.
- **Lack of Staff:** Indian prisons have long suffered severe staff shortages, including medical, correctional, and ministerial personnel. There is a high percentage of vacancies in all categories of jail staff. For instance, in Bihar and Uttar Pradesh, approximately 200 positions are lying vacant.
- **Prison Budget: Prison and its management is a state subject.** The Parliamentary Standing Committee has noted that out of Rs 7,619 crores in 2021-22, only Rs 6,727 crore has been used. The committee also highlighted that 12 States have not disbursed funds to their prison departments. The report further states that only 0.6% of the total prison budget was spent on vocational and educational training. Only 7.09 % of prisoners in the country were receiving skill training.
- **Judicial Pendency:** As of 2022, 4.7 crore pending cases are across all levels. The juridical backlog creates tremendous pressure on Indian prisons.

### Government Initiatives:

- **The Government of India set up the National Mission for Justice Delivery and Legal Reforms** to reduce judicial delay and pendency. Also, to enhance accountability in the systems.

- **Fast Track Courts** have been established to address the 4.7 crore pending case and expedite the judicial process.
- **Model Prison Manual (2016) and Mental Healthcare Act (2017)** outline inmates' right to humane conditions, including healthcare facilities and suicide prevention programs.

### Way forward:

The **National Human Rights Commission (NHRC)** has recommended the following measures:

#### PEPPER IT WITH:

Law Commission of India, Mental Healthcare Act, Need of Judicial and Prison Reforms, NHRC, Fundamental Rights.

- **Check to attempt suicide:** Regular monitoring of bed sheets and personal articles of inmates to counter suicidal attempts.
- **Mental Health Awareness:** Awareness courses and training camps for the inmates should be held regularly.
- **Prisoner Buddy:** Regular observation and assessment of inmates can be undertaken by a prison buddy, a trained psychologist.
- **Best Practice:** The Gatekeeper Model (by the World Health Organization) includes providing mental health training to the identified prisoners at risk of suicide.
- **Recreational activities:** Activities like yoga, sports, music, dance, spiritual and religious camps should be held timely to channel their energies positively and inculcate a positive mindset.

## Press Gagging

### News Excerpt:

Several times, the Government was accused of silencing the dissenting voice because of Digital controversies, the Global Internet Freedom Report, and concerns with the Personal Data Protection Act.

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### About Press Gagging:

- A **gag order** (also known as a gagging order or suppression order) is typically a **legal order** by a **court** or **Government** restricting information or comments from being made public or passed onto any unauthorized third party. The process of **curtailing** the voice of the press is called gagging.

### Why is it a concern?

- **Suppression of free speech:** Gagging infringes upon the **fundamental rights** of speech and expression



mentioned in **Article 19** of the Constitution. They prevent individuals, groups or the media from sharing information and opinions. Thereby limiting the public's ability to hold the Government accountable.

- **Lack of transparency:** Gagging blocks out the Government's actions and decisions that should otherwise be under public scrutiny, leading to **opacity** in the governance.
- **Abuse of power:** Authorities may issue gag orders for legitimate reasons like maintaining national security and law and order, but there is always a possibility that the orders can be used to **suppress dissent** and **stifle opposition**.

### Digital Controversies:

**Instances of controversies:** There were several instances when individuals got booked and arrested for allegedly making posts critical of the Government or the Government's ideology.

- Two clerics in **Uttar Pradesh** were booked over social media posts supporting Palestine.
- **Karnataka** police booked a man for allegedly making objectionable posters of the CM of Karnataka and circulating them on social media.
- A YouTuber was arrested from Goa in 2022 for allegedly taunting CM of West Bengal. Several complaints were filed against him, and he was brought on transit remand to **West Bengal**.
- In 2012, a Jadavpur University professor, Ambikesh Mahapatra, was arrested for sharing an email with a cartoon supposedly poking fun at the CM of **West Bengal**. He was acquitted only recently, more than a decade later.

### Concerns:

- The individuals arrested for digital controversies are charged under various sections of the **Indian Penal Code**, including 'promoting enmity' and 'provoking riots,' etc.
- Furthermore, they are put under **Preventive detention**, making their case weak and **difficult** to get bail and release orders.
- **Rights of the individuals** – Speech and Free Expression (**Article 19**), Equality (**Article 14**), and Life (**Article 21**) are severely affected and curtailed.

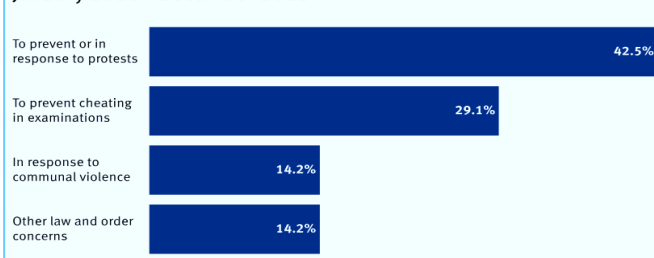
### Freedom on the Net 2023: The Repressive Power of Artificial Intelligence

#### India-related findings:

- On a range of 1 to 100, where '100' represented the **highest digital freedom** and '1' represented the **worst repression**, India scored 50, while **Iceland**, with 94, emerged as the country with the best climate of Internet freedom.

- The **report noted** as the country prepares for general elections in 2024, the Government's expanding censorship regime is creating an uneven playing field by silencing criticism of and independent reporting on the ruling party.
- India also figured among the countries that **blocked websites** hosting political, social, or religious content, deliberately disrupted ICT networks, used pro-government commentators to manipulate online discussions, and conducted technical attacks against government critics or human rights organizations.
- Evaluation is based on **five censorship methods** — Internet connectivity restrictions, blocks on social media platforms, blocks on websites, blocks on VPNs, and forced removal of content. **India** is engaged in all of them **except VPN blocking**.
- It has raised concerns about governments' **increasing use** of Generative artificial intelligence (AI) for censorship and the spread of **disinformation** by sowing doubts, smearing opponents and influencing the public debate.

#### Local Authorities in India Shut Down Internet 127 Times January 2020—December 2022



#### Laws and Provisions about Internet restrictions:

- In India, there is **no specific law** governing internet restrictions.
- **Temporary Suspension of Telecom Services** (Public Emergency or Public Safety) **Rules, 2017**, under the Indian Telegraph Act, 1885, provide for a **temporary shutdown** of telecom services in a region on grounds of **public emergency** and give senior **bureaucrats** from the Home Ministry at the central and State levels the power to order shutdowns.
- **Under section 144 CrPC:** Order issued by an officer of the rank of **joint secretary** or above, authorized by the union or state home secretary.
- **Section 69(A) of the IT Act (2008):** To block **websites**, but not the whole internet.

#### Judicial pronouncements regarding Internet restrictions:

- **Anuradha Bhasin vs Union of India 2020:** The Supreme Court stated that an **indefinite** suspension of internet services would be **illegal**. The Supreme Court has declared access to **the Internet** a

**fundamental right.** Also, the internet shutdown must satisfy the **tests of necessity** and **proportionality**.

- **Faheema Shirin v/s State of Kerala:** The Kerala High Court has declared that the **right to access** the Internet is one of the fundamental rights under **Article 21**.

#### Instances of Internet restrictions:

- India's **most prolonged** internet shutdown was in **Jammu and Kashmir**. The Government shut down **4G** mobile internet access for 550 days, from August 2019 to February 2021.
- **West Bengal** and **Rajasthan** used internet shutdowns to prevent protests, cheating in exams and response to communal violence.
- In March 2023, **Punjab** was placed under a three-day mobile internet blackout to track down a separatist leader.
- In May, **Manipur** blocked the internet on mobile and fixed-line services for the entire month following ethnic violence.
- In 2022, **nearly 60%** of India's shutdowns occurred in Jammu and Kashmir U.T. due to "political instability and violence," according to **Access Now's report**.

#### Impact of Internet restrictions:

- **"No Internet Means No Work, No Pay, No Food': Internet Shutdowns Deny Access to Basic Rights in Digital India"** report by **Human Rights Watch** and **Internet Freedom Foundation** finds that internet shutdowns impair essential activities and adversely affect economic, social and cultural rights under Indian and international human rights law.
- **Right to food:** For subsidized food grains, authentication of biometric ID is done using the internet. A shutdown means families could go hungry for days.
- **Right to Employment and Social Security:** The rural income security program NREGA requires workers to mark their attendance online. Geo-tagged photos are to be uploaded, failing which their remuneration is not provided.
- **Right to protest, dissent:** Authorities use internet shutdown to curb democratic protests. It hinders the political participation of people.
- **Right to expression:** Internet shutdowns undermine free expression.
- **Right to education:** Students cannot access MOOCs, e-Vidya and other ed-tech platforms, creating a divide in education.
- **Right to Health:** People cannot operate telemedicine services like e-Sanjivani, affecting health parameters.

- **Digital Transactions:** Various businesses relying on Internet connections are held back, and banking activities are affected, leading to significant economic losses, thereby greatly exacerbating inequalities.
- **Creates trust deficit:** Lastly, it creates a trust deficit between the citizens and the Government. Parliamentary standing committee has said that there is no evidence that internet shutdowns help maintain law and order. It works as a form of collective punishment.
- **Digital Divide: India Inequality Report 2022: Digital Divide** by Oxfam states that approximately 70% of the population has poor or no connectivity to digital services. Blackout further exacerbates the digital divide, creating inequalities.

#### Ethical Dilemma-Rights vs Security:

- **Rights issue:** Internet restrictions **violate** the rights of individuals, like the right to food, work, social security, education, health, etc.
- **Security issue:** Meanwhile, states must provide peace and stability, curbing misinformation and disinformation, checking hate speech and maintaining national interests.
- **Way out:** A **balanced approach** should be followed in this ethical dilemma so that the rights and national security go **hand in hand**.

#### Personal Data Protection Act (PDPA)

- Personal data is the **only** type of data protected under privacy law. However, when **combined** with **other datasets**, non-personal data can become personal data, posing a threat to user privacy. The Act also provides **limited applicability** and **exceptions from the individual's consent**.

#### Applicability of the Act:

- Processing of personal data within the territory of India and outside India.
- Activity related to offering goods and services to Data Principals within India.

**Legitimate uses of data:** Consent is not expressly needed for situations such as -

- Voluntary disclosure by data principal
- Reasonable expectation by the data principal
- Performance of function under the law
- Medical emergencies
- Adherence to any verdict rendered is necessary
- Threat to public health
- Ensure safety in case of any disaster

#### Challenges:

- **Children's Data:** There is no definition of what is meant by processing a child's personal data in a way that is harmful to their well-being.

- **Breach notification:** There is no set timeframe for alerting the Data Protection Board and the impacted Data Principals of a personal data breach.
- **Publicly available data:** The Act exempts any personal data made available to the public, however, it is unclear from the Act whether this information can be used for processing or is just intended for viewing.
- **Data principal request timeline:** The Act does not mention how promptly data fiduciaries (who process the personal data) must react to requests from data principals (individuals to whom personal data relates).
- **Personal data vs Sensitive personal data:** It fails to differentiate between "personal data" and "sensitive personal data", consequently negating the elevated level of protection associated with the latter.
- **Data Protection Board (DPB):** Its independence is a cause of concern as all its members are to be appointed by the Union Government. Only adjudicatory and not regulatory powers have been bestowed upon the DPB.

#### Way forward:

- Police often register cases for unsavoury remarks against those in power, but arresting someone for mere criticism or tasteless comments is **questionable**. Such arrests for minor charges violate arrest norms and are often part of a playbook used by rulers in many states. **Courts** should hold **police officers** and **bureaucrats** involved in this practice **accountable**.
- **Misinformation** during **internet bans** can lead to serious consequences. For instance, a **press report** by an online portal points out in chilling detail that disinformation was a pretext for perpetuating sexual violence against **Kuki-Zo women**. Information flows are crucial for holding governments accountable for ensuring truth, justice, and reconciliation. The **courts** need to demand **accountability** from the State and central **executive** to improve the **precedent** set by the **Anuradha Bhasin case**.

#### PEPPER IT WITH:

Press Freedom, Censorship, Fundamental Rights, Preventive Detention, Digital Divide, India Inequality Report

years, the Prime Minister has pushed for simultaneous Lok Sabha and state assembly polls.

#### Meaning of Simultaneous Election:

- The **Simultaneous election or One Nation, One Election** in India aims to synchronize elections for the Lok Sabha and all state assemblies. The idea is to hold these elections simultaneously, on a single day or within a specific time frame.
- In India, the general elections to elect the members of Parliament and state assembly polls are held separately when the incumbent Government's tenure ends or it gets dissolved for some reason.

#### History of Simultaneous Elections:

- In India, simultaneous elections to the Lok Sabha (House of The People) and Vidhan Sabhas (State Legislative Assemblies) were held in the years **1951-52, 1957, 1962 and 1967**.
- Thereafter, however, the **schedule could not be maintained**, and the elections to the Lok Sabha and the Vidhan Sabhas have still not been realigned.

#### Constitutional provisions for holding simultaneous elections:

- In the 2018 report, the **Law Commission** headed by Justice B S Chauhan held that simultaneous elections could not be held within the existing framework of the Constitution.
- These could be held together "through appropriate amendments to the Constitution, the **Representation of the People Act 1951**, and the **Rules of Procedure of Lok Sabha and State Assemblies**."

#### The articles that would require Amendment are:

- **Article 83 (2):** The Lok Sabha's term should not exceed five years but may be dissolved sooner.
- **Article 85 (2) (B):** A dissolution ends the very life of the existing House and a new House is constituted after general elections.
- **Article 172 (1):** A state assembly, unless sooner dissolved, shall continue for five years.
- **Article 174 (2) (B) -** The Governor has the power to dissolve the assembly on the aid and advice of the cabinet. The governor can apply his mind when the advice comes from a Chief Minister whose majority is in doubt.
- **Article 356 -** Imposition of President's Rule in states.

#### Views on Simultaneous Election:

##### 1. The Election Commission of India:

In 1983, in its Annual Report, the Election Commission of India recommended holding simultaneous elections for the Lok Sabha and State Legislative Assemblies. This recommendation stemmed from several compelling reasons:

## Simultaneous Elections

#### News Excerpt:

Recently, the Union Government formed a committee under former **President Ram Nath Kovind** to look into the feasibility of simultaneous elections to State Assemblies and the Lok Sabha. Over the

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- Significant **cost savings** by avoiding the substantial administrative expenses incurred during separate Lok Sabha and State Legislative Assembly elections.
- The **entire administrative set-up throughout the country slows down** considerably during the Lok Sabha or the Assemblies elections, and all other normal functions and activities of the Government, including developmental work, are pushed to the background.

- **Holding of elections in two phases:** The elections could be held in **two phases**. The elections to some assemblies could be held during the **midterm of Lok Sabha**. The polls to the remaining legislative assemblies could be held at the end of Lok Sabha's term. The term of some assemblies would have to be shortened, while the remaining could be extended to hold simultaneous elections.
- **Schedule of next cycle of elections:** The elections to

Arguments in favour	Arguments against
<ol style="list-style-type: none"> <li>1. <b>Reduced public expenses:</b> Holding simultaneous elections would reduce the massive expenditure incurred for conducting separate elections every year. Presently, the cost of holding elections for Lok Sabha and Legislative Assemblies of States and UTs has been pegged at Rs. 4500 crores by the Election Commission of India.</li> <li>2. <b>Improving governance:</b> Elections lead to the imposition of a <b>Model Code of Conduct (MCC)</b> in the poll-bound State/area, and as a result, the entire development programme and activities of the Union and State Governments in that State come to a standstill. Frequent elections lead to the imposition of MCC over prolonged periods, which affects normal governance. This could be prevented through simultaneous elections.</li> <li>3. <b>Preventing the disruptions of normal lives:</b> Frequent elections lead to disruption of normal public life and impact the functioning of essential services. If simultaneous elections are held, this period of disruption would be limited to a certain predetermined period.</li> <li>4. <b>Lesser deployment of manpower:</b> It would free the manpower such as officials, teachers, armed forces, etc., which are often deployed for prolonged periods on election duties. <b>For example</b>, the 2014 Lok Sabha elections, which were held along with State Assembly Elections in Odisha, Andhra Pradesh, Sikkim, and Arunachal Pradesh, were spread over ten phases, and 1077 in situ companies and 1349 mobile companies of the Central Armed Police Force (CAPF) were deployed.</li> <li>5. <b>To prevent populist measures:</b> Due to frequent elections, the political parties in power generally adopt populist measures instead of nationalist ones. This could create a situation akin to a "roving bandit" state.</li> <li>6. <b>Curbing wastage of resources:</b> During elections, extensive use of non-renewable resources like fuel and excessive pamphlet printing contribute to environmental problems. Holding elections less frequently (once in five years) could curb these issues and promote sustainable development.</li> <li>7. <b>Reduced voter fatigue:</b> Governments are <b>forever in campaign mode</b> because of frequent elections. Simultaneous elections can reduce voter fatigue.</li> <li>8. <b>Reduced parties' expenses:</b> An enormous amount of money has to be raised at every election. Election expenses of political parties can be reduced drastically if elections are held simultaneously. There would be <b>no duplication of fundraising</b>. This would save the public and business community multiple times from pressure for election donations.</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Issue of syncing the terms of Legislative assemblies and Lok Sabha:</b> The biggest challenge in the way of the 'One Nation One election' is to sync the terms of the various state legislative assemblies with those of Lok Sabha.</li> <li>2. <b>No clarity on midterm poll/President rule:</b> There is also no clarity on dealing with situations like midterm polls or the President's rule in case any party fails to get the majority. Moreover, some states may get dissolved after sync, again breaking the sync.</li> <li>3. <b>Expenditure:</b> Simultaneous conduct of elections would require large-scale purchase of <b>Electronic Voting Machines and Voter Verifiable Paper Audit Trail (VVPAT) machines</b>. For simultaneous elections, Rupees 9284.15 crore will be needed to procure EVMs and VVPATs. Further, storing these machines would increase the warehousing cost.</li> <li>4. <b>Concerns of regional political parties:</b> Regional political parties argue that having the two elections simultaneously would <b>hamper their prospects</b> because they won't be able to highlight local issues prominently. Furthermore, they fear they <b>cannot compete with national parties</b> in money and election strategies.</li> <li>5. <b>Concerns of regional issues get overshadowed by national issues:</b> There is a worry that regional issues might get overshadowed by national issues, affecting the electoral outcome at the state level as people vote in State influenced by national issues.</li> <li>6. <b>Anti-incumbency factor:</b> There is apprehension that whenever there is a majoritarian government at the Centre, any <b>anti-incumbency in the States is likely to get neutralized</b> if simultaneous elections are held.</li> <li>7. <b>Autonomy of state government and Special provisions:</b> Simultaneous elections attack the autonomy and independence of state governments. This can weaken the federal structure and increase the conflict of interest between the Centre and states. Moreover, the terms of state governments vary, and some states are given special provisions under Article 371 of the Constitution.</li> <li>8. <b>Elections as festivals of democracy:</b> In our country, with a population of almost 150 crores, it is a logistical challenge. In India, elections are festivals of democracy. This requires careful planning and coordination, which can be difficult if simultaneous elections are to be held.</li> <li>9. <b>Information overload for voters:</b> Potential information overload for voters, given that they have to <b>pick their leaders simultaneously at multiple levels of Government</b>. Every voter has different considerations and, consequently, other voting preferences. This can poorly impact voters' decision-making abilities while picking candidates — due to confusion or overwhelm.</li> </ol>

## 2. Standing Committee on Personnel, Public Grievances, Law and Justice:

The standing committee submitted a report on the feasibility of holding simultaneous elections in 2015. Its recommendations are as follows:

all state assemblies, whose terms end within **six months to one year** before or after the appointed election date, can be **clubbed together**.

- **Schedule of Bye-elections:** The committee recommended that bye-elections to all seats that



become vacant during a year may be conducted together during a predetermined time.

- **Conditions for holding early elections:** To hold early elections to Lok Sabha and state legislative assemblies, either a motion for an early poll must be agreed to by at least two-thirds of all members of the House, or a no-confidence motion must be passed by the House and with no alternative government being confirmed within 14 days of passing a confidence motion.

### 3. NITI Aayog:

- In 2017, the NITI Aayog released a paper titled 'Election Time Table', discussing the feasibility of simultaneous elections. It suggested a practical roadmap for implementing the concept.
- NITI Aayog backed the idea of simultaneous State and national polls to **remove impediments** to governance, policy-making, and developmental activities.
- It noted that there has **not been a year without an election** to either a state assembly, Lok Sabha, or both in over 30 years. It adversely impacts both tangible and intangible within the larger sphere of governance.

**Way Forward:** Whether simultaneous elections should be

held in India or not is a complex decision that requires careful consideration. It involves constitutional, logistical, and political considerations, and any

decision should be made after thorough deliberation and consensus-building among various stakeholders, including political parties, state governments, and the Election Commission of India.

#### PEPPER IT WITH:

Election Commission of India, VVPAT, EVMs, Electoral Reforms, NITI AAYOG, Model Code of Conduct.

## NEP - Multiple entry and exit options may not suit India- House panel

### News Excerpt:

Recently, A parliamentary panel on Education has advised the Union government to hold discussions with stakeholders before implementing the option of multiple entry and multiple exit (MEME) under the National Education Policy (NEP) through its report titled "**Implementation of the National Education Policy 2020 in Higher Education**". This report has highlighted some key issues and made important recommendations.

- The **NEP 2020** is founded on the five guiding pillars of **Access, Equity, Quality, Affordability** and **Accountability**.

### Observations and Recommendations of the Committee include:

**1. Interdisciplinary and personalized learning:** The panel appreciated the 'Design your Degree' programme launched by **Jammu University**, which is based on the **Choice-Based Credit System** outlined in the NEP. The programme offers students the choice to pursue interdisciplinary and personalized learning.

- The Committee recommended:
  - Introducing the "**Design your Degree**" programme in other institutions.
  - By 2030, **every district** in the country should have **at least one** multidisciplinary Higher Education Institutes (HEI).

**2. Digital libraries:** The panel observed that digital libraries can provide students and educators with convenient access to many learning **resources**.

- It recommended the Department of Higher Education ensure the availability of content in **regional languages** for better reach and learning **outcomes**.

### Background:

- **Kothari Committee:** The First National Policy on Education, 1968 and the Second National Policy on Education in 1986 were brought out based on the recommendations of this committee.
- **Kasturirangan Committee:** Third National Education Policy, 2020, was based on the recommendations of this committee.

**3. Marginalized students:** The Committee noted a gap between the gross enrolment ratio (GER) of students from SC and ST communities and the overall GER between 2016- 17 and 2020-21. For instance, in 2020-21, the **overall GER** stood at **27.3%**, whereas the GER for **SC students** was **23.1%**, and for **ST students**, it was at **18.9%**.

- The panel recommended specific measures in this regard. These include:
  - Conducting targeted **awareness** campaigns.
  - Developing **infrastructure** in remote areas and urban slums.
  - Providing specialized **training** for teachers working in marginalized communities.
  - Offering **scholarships** suited to the needs of marginalized communities.
  - Putting in place a transparent and efficient **hiring process** for teachers that prioritizes diversity.

**4. Multiple Entry and Multiple Exit (MEME):** The NEP proposes MEME options for higher-education students. The panel said while MEME looked like a **flexible system** that was being operated by Western educational institutions effectively, it might need to be revised in the country.

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**MEME:**

- **NEP 2020** envisages multiple entry and exit for students (MEME), offering greater attention to life aspirations and flexibility for students.
- Students can opt for it at **graduate, master's** and **doctoral** levels.
- A **certificate** will be provided after completing one year of study, a **diploma** after two years, and a **degree** after a three-year programme.
- An **academic bank of credit** (ABC) will digitally **store** the academic credits earned by a student.
- It removes "**rigid boundaries**" and creates new possibilities for "**life-long learning**".
- For now, **the Kerala govt** has decided **not** to implement **MEME** in the State.
- **Pupil-teacher ratio:** The MEME makes it difficult for the institutions to predict how many students would exit and how many would join midway. Since institutions would not know the **in- and out-traffic**, it will disturb the pupil-teacher ratio.
- **Geographical factor:** The panel members also expressed concern that uneven geographical distribution of higher educational institutions would create **hurdles** in **managing** MEME in several areas, mostly the countryside.
- **Greater flexibility:** The panel, though, noted that MEME will offer students greater flexibility and choice in their educational pathways.
- The panel asked the Centre to develop comprehensive **guidelines** and a well-defined **framework** for MEME options. These include specific **eligibility criteria** and **credit transfer mechanisms**, providing a clear road map for students pursuing different **exit points**.
  - Implementation of a standardized Credit Accumulation and Transfer (**CAT**) **system** that allows students to **earn and transfer credits** seamlessly across institutions. It would facilitate smooth transitions between different levels of education, from **certificate courses** to **doctoral programmes**.
  - The Union Education Ministry should have wider **consultations** with various universities/institutions, their regulatory bodies and other stakeholders to **devise ways**, given the difficulties in **implementing** the **MEME** options and apprise the **panel**.

**Some additional recommendations:**

- **Gross Enrolment Ratio (GER):** GER in higher education, including vocational education, should be increased to **50% by 2035**.
- **Funding:**
  - (a) Improving the **effectiveness** and impact of the Higher Education Financing Agency (**HEFA**) in funding HEIs.

- (b) HEFA should **diversify** its funding sources beyond government allocations and explore partnerships with private sector organizations, philanthropic foundations, and international financial institutions.

- (c) Reviewing and adjusting the **interest rates** on loans provided by HEFA "to make them more competitive and affordable" for HEIs.

**PEPPER IT WITH:**

Gross Enrollment Ratio, National Education Policy, Higher Education Institutions, CAT system.

**Social Audit Unit of MGNREGS****News Excerpt:**

The Social Audit Units (SAUs) of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) have flagged cases of **misappropriation**, and the last recovery has been only 13.8% in the ongoing financial year compared to 20.8% in FY 22-23.

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**Status of MGNREGS as of 2023-24:**

14.32 crore active workers

7.71 crore assets created to date

179.96 crore person days generated

30.77 crore DBT transactions

4.87 crore households benefitted

**Social Audit:**

- Process of **reviewing** official records and determining whether **state-reported expenditures** reflect the **actual monies** spent on the ground.
- **Section 17** of the **MGNREG Act** states that the **gram sabha** shall **monitor** the execution of works. Each State has **social audit units** which are supposed to work independently of the implementing authorities.
- Union Rural Development Ministry directly **funds** the social audit units to maintain their independence from the States.
- The social audit unit's sole responsibility is to **flag malpractice** cases while recovering the money, and reprimanding the officials responsible is up to the State governments.

**About:****Significance:**

- **Income:** MGNREGS is a source of income and acts as an additional income **cushion** for **marginal sections**. It is the enabler of the rural regions' economy by strengthening their **purchasing power**.
- **Women's Empowerment:** It helps ensure women's economic independence by providing them with employment.
- **Sustainable development:** It has environmental benefits too. **Watersheds** have been created, **wells** have been dug, de-siltation of water bodies is done, and works have been done on land, water and trees. Thereby leading to carbon capture and sequestration (**CCS**).
- **Digital Inclusion and Financial Inclusion:** Wages are provided through Direct benefit transfer (**DBT**). The rural population has become aware of digital transactions and has bank accounts.

**Recent Developments:**

- **Amarjeet Sinha committee** reviewed the implementation of the MGNREGS.
- The Union government has released guidelines that made **digital** capture of the **attendance** of workers **universal** from 1st January 2023.
- For the financial year **2023-24**, **MoRD** has notified **new wage rates** effective from 1st April 2023 and Standard Operating Procedures for streamlining **timely payment**.
- **Consumer Price Index** - the Ministry of Rural

Development (MoRD) uses Agriculture Labour (CPI-AL) to revise wages.

- MoRD released a "**Social audit calendar vs. audits completed**" report stating that only **14.29 %** of planned audits have been completed.
- The union government has **extended** the deadline to December 31, 2023, for states to adopt an Aadhaar-based payment system (**ABPS**) to **avoid wage delays**.

**Issues:**

- **Poor recovery:** According to the Union Rural Development Ministry, **less than 14%** of the amount flagged by the auditors has been recovered in this financial year. SAUs in **Telangana** have flagged several cases, but the recovery rate remains low.
- **Poor monitoring:** Some states like **Gujarat, Goa, Meghalaya** and UTs like **Puducherry** and **Ladakh** report zero cases from the last three years.
- **Lack of funds:** The Union Rural Development Ministry, which directly funds the social audit units, is not giving funds to them in time. SAUs in **Karnataka** and **Bihar** have not received funds for nearly two years now. Low budgetary allocation results in the depletion of funds in the year's first half, leading to work stalling in the latter half.
- **Lack of trained personnel:** SAUs have a shortage of **trained manpower**, which affects their functioning.
- **Aadhar-based payment system (ABPS):** Recently, **West Bengal** deleted over **one crore job cards**. Last year, around **5 crore workers** were removed mainly because of fake job cards, duplicate job cards, not willing to work, the family shifted from gram

## Initiatives tied with MGNREGA

**Jaldoot App:** By the Ministry of Rural Development (MoRD) and the Ministry of Panchayati Raj, for measuring the water level in a Gram Panchayat through 2-3 selected open wells.

**Mission Amrit Sarovar:** Aimed at developing and rejuvenating 75 water bodies in each district.

**Geo-MGNREGA:** MoRD in association with the National Remote Sensing Centre (NRSC), ISRO and National Informatics Centre (NIC) for geotagging of assets created.

**Yuktdhara Portal:** For facilitating gram panchayat level planning of Geo-MGNREGA activities across India. It is part of the MoRD-ISRO collaboration termed Bhuvan.

**National Mobile Monitoring App (NMMS):** For the attendance of MGNREGA workers and photographs.

**Janmanrega App:** It is a citizen-centric app that provides information on user registration status.

**Project UNNATI:** Skilling project meant to provide training for one household adult member who completed 100 days of work under MGNREGA in the previous financial year.

panchayat permanently, and the person expired. The **high deletion rate** is particularly due to a **mismatch** between **job cards** and **Aadhaar card** details, as the union government is making ABPS mandatory from next year.

- **National Mobile Monitoring System (NMMS):** It requires workers to click **two photographs**, one at the start of work and another at the end of the shift, i.e., by 5 p.m. This is particularly **problematic** for workers who complete their work early and leave the site for other work. They have to return to the first site to get their photo clicked.
- **Aadhaar authentication:** It faces hurdles in establishing authorization and often results in **"service denials"**. The reliability of biometrics, especially for manual labourers, could be better in hot, humid climates.

#### Way forward:

- **Funding to SAUs:** The Centre should provide adequate funds for the social audit. A recent Union Rural Development Ministry (MoRD) report highlights that **only 14.29 %** of planned audits were completed in 2021-2022. Also, the **capacity building** of SAUs needs to be increased by providing **training**.
- **Recovery and reprimanding the corrupt officials:** The state governments should ensure that there are no leakages in the funds, and action should be taken on a priority basis against officials found to be corrupt.
- **Basic facilities and timely payment:** The Centre should coordinate with states regarding the timely payment of **wages** and **compensation**. For example, basic **medical facilities** should be provided to all the workers.
- **Women-centric work:** Though MGNREGA has a sufficient number of women, it needs to give priority to more women-centric work and its promotion.
- **Wage disparity:** Uniformity in wages should be brought throughout the country. MoRD is currently using Agriculture Labour (CPI-AL). The Amarjeet Sinha committee has recommended the use of **CPI (Rural)**.
- **Number of days:** The Centre should also increase the minimum number of days the work is guaranteed from **100 to 150**.
- **Buldhana (Maharashtra) model:** It should be followed, under it, the **raw material** for **road construction** is obtained from the **de-siltation** of clogged and overflowing water bodies.

#### PEPPER IT WITH:

Types of Audit, Measurements of Inflation: CPI, WPI, etc., Initiatives for Women Empowerment, Aadhar Based Pavment Svstem.

## PRE-SHOTS

### District officers under the POSH Act

#### News Excerpt:

Supreme Court directed the **Centre, States** and Union territories (**UTs**) to **appoint District Officers** under the POSH Act immediately.

#### About POSH Act:

- The Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act and Rules, 2013 ("Law") mandates every Employer to "provide a safe working environment at the workplace which shall include safety from the persons coming into contact at the workplace."
- The 2013 law broadened and gave legislative backing to the Vishaka Guidelines, laid down by the Supreme Court in a judgment passed in 1997.
- **Bhanwari Devi case:** The case in question was filed by women's rights groups, including one called Vishaka, over the alleged gang-rape of a social worker from Rajasthan named Bhanwari Devi, who had fought against the marriage of a one-year-old baby girl in 1992, and had been allegedly gang-raped as retribution.
- The court made the guidelines legally binding, which defined sexual harassment and imposed three key obligations on institutions of prohibition, prevention, and redressal.

#### About

#### Role of a District Officer of POSH Act:

- Tasked with keeping the **redressal** and **monitoring** framework intact and further ensuring effective **implementation** of the Act.
- Constitutes the Local Complaints Committee (**LCC**) in each district for a workplace that employs **less than 10 workers**. An Internal Complaints Committee (**ICC**) is set up if the organization has **ten or more employees**.
- Tasked with designating a **nodal officer** in each block, taluka, and tehsil in rural or tribal areas, and ward or municipality in the urban area who receives **complaints** and forwards them to the concerned LCC.
- After conducting the **inquiry**, the LCC submits its **report** to the district officer and the employer, recommending action.
- The district officer forwards a **brief statement** on the **annual reports** (number of cases filed and their disposal) submitted by every employer in their jurisdiction to the Government.

#### Recommendation Regarding POSH rules by the Supreme Court:

- They should be **amended** to **clarify** that district officers have the authority to **collect fines** from



employers for failing to constitute ICC or LCC for receiving complaints of sexual harassment at the workplace.

- POSH rules should designate **nodal authorities**, preferably in the women and child department.
- The court also asked the Centre and states to consider making "**anonymized data**" from the annual compliance reports collected by district offices. Further, consider publicizing these statistics as an act of **transparency** and **good governance**.

### Delimitation Commission

#### News Excerpt:

Implementing the reservation provision in the **Women's Reservation Act** is contingent on two processes — a **delimitation exercise** and a **Census**.

#### About:

#### Delimitation:

- Delimitation is **redrawing** Parliamentary and Assembly **constituencies** based on the latest **population data**. As populations change, there is a **need to readjust** the number and boundaries of the constituencies so that every person's vote carries similar weight.
- Apart from population figures, delimitation also aims at a **fair division of geographical areas** into seats to guard against allegations of **gerrymandering**, which means redrawing seat boundaries so that **no political party** has an unfair **advantage** over another.
- It is conducted by an **independent** Delimitation

#### Delimitation Commission:

- It is a **quasi-judicial** body appointed by the **President** of India and collaborates with the Election Commission of India.
- It comprises- a **retired Supreme Court judge**, **Chief Election Commissioner**, and respective **State Election Commissioners**.
- The copies of its orders are laid before the Lok Sabha and the **State Legislative Assembly** concerned, but **no modifications** are permissible therein by them.

Commission (a high-power body).

#### Constitutional Provisions:

- **Article 82:** It mandates the "**readjustment**" in **allocating seats** to every State in Lok Sabha **upon completion of each Census**.
- **Article 327:** Parliament may, from time to time, by law, make provision with respect to all matters in

connection with the elections, including **delimitation of constituencies**.

- **Article 329:** It bars a challenge to the validity of such a law before **any court**.

#### Concerns surrounding delimitation:

- The **42<sup>nd</sup> Amendment Act of 1976** **suspended** the redrawing of seat boundaries and seat allocation **until 2001** to promote **family planning**. Later, the freeze on undertaking fresh delimitation was extended **until 2026** through the **84<sup>th</sup> Amendment Act** of 2002.
- The year 2026 was chosen because, according to the **National Population Policy**, that was when the Government expected **population growth to level off**. In other words, the assumption was that if population policies worked as planned, by 2026, there should be a roughly equal number of births and deaths in India.

#### Next delimitation:

As per the current provisions in the Constitution, the next delimitation exercise should occur based on the **first Census carried out after 2026**, 25 years after the 84th Amendment, which would now happen after the **2031 Census**.

### Formation of Districts (Rajasthan)

#### News Excerpt:

Three new districts- **Malpura**, **Sujargarh** and **Kuchaman** formed in Rajasthan, taking the total number of districts in the State to **53**.

#### About the news:

- Malpura will be carved out of the existing Tonk district, Sujargarh will be created from Churu and Kuchaman from Nagaur.
- Earlier in August this year, the Rajasthan cabinet approved the formation of **19 new districts** and **three new divisions** in the State.
- The formation of new districts and divisions will **enhance governance** in the State, **increase the capabilities** of the administrative units and **strengthen the law and order**.

#### Process of creation of a district:

- The state government can create new districts or alter or abolish existing ones.
- These changes can be made by passing an executive order or a law in the state Assembly.
- The Centre does not have any powers related to the alteration of districts.
- However, the central Government's role comes into the picture when the State wants to change the name of a district or railway station.
- The state government must send requests seeking clearance to several central government departments

like the Railway Ministry, the Ministry of Earth Sciences, the Intelligence Bureau, the Department of Posts and the Geographical Survey Of India.

- The Centre will issue a no-objection certificate after reviewing the above-mentioned departments' replies.

### Lok Sabha adjourns sine die, clocks 160% productivity

#### News Excerpt:

The **Special Session** of the Lok Sabha was adjourned **sine die**.

#### About:

#### Thirteenth Session of the 17th Lok Sabha or the Special Session:

- It was scheduled to be held from 18<sup>th</sup> September 2023 to 22<sup>nd</sup> September 2023 but was adjourned sine die on September 21, 2023.
- **Adjournment sine die** means terminating a session indefinitely, i.e., without setting a day or date for reassembly.
- **Question hour** and **Zero hour** were not scheduled for this session.
- It had **four sittings for 31 hours with a total productivity of 160%**. Lok Sabha worked for 137% of its scheduled time and Rajya Sabha for 128%.
- Only one bill, the **128th Constitution (Amendment) Bill**, referred to as the **Nari Shakti Vandan Adhiniyam**, which provides **33% reservation to women** in the Lok Sabha, State Assemblies and Delhi legislative assembly, was introduced and passed.
- **Five bills** were listed for consideration, but **none** of them were taken up during the session.
- The discussion was undertaken on **75 years** of the **Parliamentary journey** and the **Chandrayaan-3 Mission**. The session was held in the **new Parliament building**.

#### Special Session or Emergent Parliament Session:

- The **Constitution** does **not** use the term "**special session**". The term sometimes refers to sessions the Government has convened for **specific occasions**, like commemorating parliamentary or national milestones.
- **Article 85** of the Constitution deals with the **summoning** of Parliament's sessions and their **prorogation** and **dissolution**. It allows the President of India to summon each House of Parliament to meet "from time to time" and mandates that two successive sessions be held within six months.
- **Rule 3** of the **Rules of Procedure and Conduct of Business** in the **Lok Sabha** is derived from this Article; it says that summons could be issued to Members of Parliament to attend an emergent Lok Sabha session. The corresponding rule for the **Rajya Sabha** is also

**Rule 3**, with the same provision for an emergent session.

- **Article 352** also mentions a **special sitting** of the House, but it is invoked during a **national emergency**.
- Therefore, the **power to convene a session** of Parliament rests with the **Government**. The **Cabinet Committee on Parliamentary Affairs** takes the decision and is formalized by the President, in whose name MPs are summoned to meet for a session.

#### Previous Special Sessions:

- The first-ever special session of the Parliament was convened on **14 and 15 August 1947** to mark **India's independence**.
- During the **India-China war** in 1962, another special session was called on the 8th and 9th of November under the leadership of Prime Minister Jawaharlal Nehru to discuss the incursion made by China.
- On **15 August 1972**, a special session was called to mark the **Silver Jubilee** of India's **Independence**.
- A **midnight session** was called on **9th August 1992** to celebrate the **50th anniversary** of the '**Quit India Movement**'.
- On **15th August 1997**, a midnight session was convened to mark **50 years** of India's **Independence**.
- The **last time** Parliament held such a **special session** was in **2017**. The Government rolled out the Goods and Services Tax in a **midnight sitting** of both the Lok Sabha and Rajya Sabha.
  - This was the **first special session** of Parliament where a **bill was discussed**. All previous such sessions were convened to commemorate historical events.

### Lok Sabha Ethics Committee

#### News Excerpt:

Lok Sabha Ethics Committee is looking into "The Cash for Query" case referred by the Lok Sabha Speaker on a Member of Parliament who is facing inquiry over bribery and misconduct allegations. She allegedly gave the login ID and password to a third party who could then ask questions on her behalf to the Parliament.

#### About the Parliamentary Ethics Committee:

- This committee was constituted in Rajya Sabha in 1997 and Lok Sabha in 2000.
- The Speaker appoints members of the committee for a term of one year.
- It examines the cases of unethical conduct referred to by the Speaker and recommends appropriate action.
- The committee report is presented to the Speaker, who asks the House if the report should be taken up for consideration. There is also a provision for a half-an-hour discussion on the report.

- Thus, it maintains discipline and decorum in Parliament and enforces the code of conduct of members of Parliament.

#### Differences with the Privilege Committee:

##### Privileges Committee

- It deals with cases of breach of privilege or contempt of Parliament by MPs or non-MPs.
- It recommends punitive actions against those found guilty, including warning, reprimand, suspension or expulsion from Parliament.

##### Ethics Committee

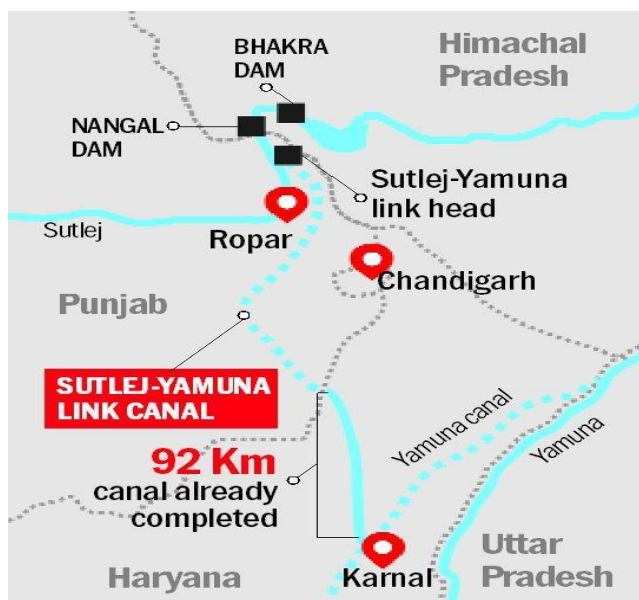
- It deals with cases of ethical misconduct or violation of the code of conduct by MPs only.
- It recommends corrective actions against those found guilty, including apology, censure, withdrawal of parliamentary facilities or privileges, or removal from parliamentary committees.

#### Sutlej Yamuna Link (SYL) canal issue

##### News Excerpt:

The **Supreme Court** ordered the Government of **Punjab** to complete the **construction** of the Sutlej Yamuna Link Canal Project.

##### About:



- SYL Canal runs about **121 km in Punjab** and **90 km in Haryana**.
- It envisages conveying 3.45 Million acre feet (MAF) out of 3.5 MAF of Haryana's average annual share of surplus **Ravi-Beas waters** (as per the 1981 agreement).

- It will **irrigate** an area of 4.46 lakh hectares. in Haryana and benefit Punjab in terms of irrigation to an area of 1.28 lakh ha.
- In terms of **power**, a total of 50 MW of power generation at two powerhouses.

##### A brief history of the issue:

- **1976:** Centre issues notification for allocating surplus Ravi-Beas waters to Punjab and Haryana; Haryana suggests SYL canal be constructed.
- **1980:** A water-sharing treaty is signed between Punjab, Haryana, and Rajasthan; Punjab agrees to complete construction in two years.
- **1981:** Haryana completes construction of the canal.
- **1985:** The Punjab Assembly passed a resolution repudiating the water-sharing treaty.
- **1990:** Construction of the canal in Punjab stops.
- **2002:** SC directs Punjab to complete construction within a year. The two states continued to battle it out in the SC subsequently.

#### Baiga Tribal Group Gets Habitat Rights in Chhattisgarh

##### News Excerpt:

The Chhattisgarh Government has granted habitat rights to its Baiga PVTG. The Baiga PVTG became the second group ('Kamar' - the first group in Aug 2023) to be granted these rights in Chhattisgarh.

##### About the Baiga tribal group:

- The Baiga community, **which primarily** resides in Chhattisgarh and adjacent districts of Madhya Pradesh, is one of the Particularly Vulnerable Tribal Groups (**PVTGs**).
- They live semi-nomadic lives and practice slash-and-burn cultivation called '**bewar**' or '**dahiya**'. They rely on minor forest produce, especially **bamboo**.
- Their diet includes **coarse grains** like **kodo millet** and **kutki** and '**pej**', a drink made from ground macca or rice water.
- **Tattooing** is an important **cultural practice** where specific tattoos are applied to different body parts based on age.

##### Habitat rights:

- **Habitat:**
  - Identifying a habitat is based on detailed **guidelines** from the Ministry of Tribal Affairs (**MoTA**).
  - The **tribal leaders** are **consulted** about the extent of their **culture, traditions, and occupation**.
  - **Four state-level departments**, i.e., Forest, Revenue, Tribal and Panchayati Raj, **coordinate**

with the **UNDP** team to ascertain what can be termed as habitat.

- Once the Government corroborates the information, a habitat is **officially declared**.
- The recognition of habitat rights grants the community rights over their traditional **living space**, cultural **customs**, economic and **livelihood** means, **intellectual knowledge** of biodiversity and ecology, traditional knowledge of the use of natural resources, and preservation of their natural and cultural heritage.
- **Consent** and **consultation** of the **gram sabha** is required for any developmental activity, despite the title **not** being a form of **private property ownership**.
- **Forest Rights** enjoy **legal protection** under several laws, including the Forest Conservation Act and Land Acquisition Law of 2013. **Habitat rights** granted under the Forest Rights Act **further enhance** this legal protection.

- Out of **75 PVTGs**, only **three** have **habitat rights** – the **Bharia** tribe (MP), the **Kamar** tribe and the **Baiga** tribe of Chhattisgarh.

#### Particularly vulnerable Tribal groups (PVTG)

- According to the Ministry of Tribal Affairs (**MoTA**), the **criteria** for declaring PVTG involves–
  - Technologically backwardness.
  - Stagnant or declining population.
  - Extremely low level of literacy.
  - Subsistence level of economy.
- PVTGs have **low health indices** and largely **reside** in isolated, remote, and difficult areas in small, scattered hamlets/habitats. There are **75 PVTGs** in 18 states and one Union Territory.

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## SOCIAL ISSUES

### Protocol for Management of Malnutrition in Children at Anganwadi

#### News excerpt:

The 'Protocol for Management of Malnutrition in Children', jointly prepared by the Ministry for Women and Child Development and the Ministry of Health and Family Welfare, was launched during the national event Suposhit Bharat-Sashakt Bharat.

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#### What is Malnutrition?

- Malnutrition refers to **deficiencies, excesses, or imbalances in a person's energy and/or nutrient intake.**
- Malnutrition represents both **under and over-nutrition.**
- The term malnutrition covers 2 broad groups of conditions:
  - Under-nutrition** includes:
    - stunting (low height for age),
    - wasting (low weight for height),
    - underweight (low weight for age),
    - micronutrient deficiencies or insufficiencies (a lack of essential vitamins and minerals).
  - Over-nutrition:** It includes overweight, obesity and diet-related non-communicable diseases (such as heart disease, stroke, diabetes, and cancer).

#### Proposed Framework:

- In India, the **highest burden of undernutrition occurs between birth and two years of age;** therefore, preventive measures must predominantly address **children under two years.**

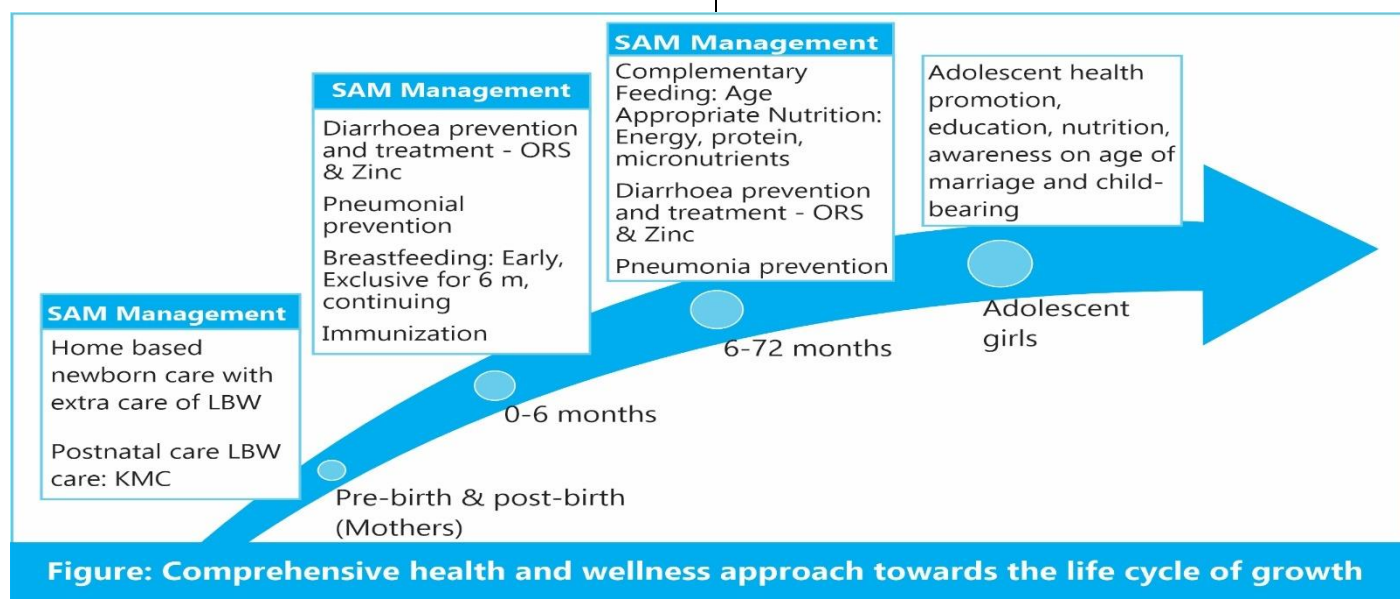
- It is the first-ever national protocol under which severe acute malnourished (SAM) children without medical complications will be managed at Anganwadi centres instead of **nutrition rehabilitation centres (NRC).**
- The protocol lists that children with bilateral pitting oedema and failed appetite tests will be enrolled in the NRCs.

#### Related Terms:

- Bilateral pitting oedema** is swelling in both legs characterised by an indentation, or 'pit', that remains when pressure is applied to the swollen area.
- NRC** is a unit in a health facility where children with SAM are admitted and managed.
- SAM** is a condition in which a child has a very low weight in relation to height, as per WHO growth standards.
- This protocol includes the concept of **"Buddy mothers"** between mothers of a healthy child and of a malnourished child, enabling joint supervision and exchange of guidance between both with respect to the health of a malnourished child.
- It creates **'malnutrition-free gram panchayats'**, highlighting that panchayats can be a helpful convergence platform for mothers groups to meet and discuss nutrition-related issues.

#### National Family Health Survey-5 (2019-21):

As per NFHS-5 (2019-21), the nutrition indicators for children under 5 years have improved compared to NFHS-4 (2015-16). Stunting has reduced from 38.4 percent to 35.5 percent, Wasting from 21.0 percent to 19.3 percent, and Underweight prevalence from 35.8 percent to 32.1 percent.



### Proposed Protocol for Assessment and Management of Malnutrition in Children:

- **Step-1: Growth Monitoring:** Identification of malnourished children should be done using the Growth Monitoring Data (**Weight-for-height and Weight-for-age**). The anthropometric measures of children (height and weight) should be entered each month in the **POSHAN tracker** to identify the degree of Malnutrition and growth.
- **Step-2: Appetite Test for SAM Children:** This test has to be carried out in front of a family or guardian. The Children who pass this test shall be considered beneficiaries under the Supplementary Nutrition Programme.
- **Step-3: Medical Assessment:** Infants less than 6 months of age who are visibly wasted or too weak should be immediately referred to the nearest health facility/NRC for evaluation and treatment by ASHA/ AWW/ ANM.
- **Step-4: Deciding the level of care based on physical condition (Weight-and-age)**
- **Step-5: Nutritional management:** All SAM children who fail appetite tests and/or with medical complications should be referred to NRC for further management.
- **Step-6: Medical management:** All the SAM children without medical complications and SUW children who need medical care as per the assessment done at step-3 shall be treated as prescribed by the Medical Officer.
- **Step-7: Nutrition, Health Education and counseling, including WASH practices.**
- **Step-8: Visit by AWW and referral:** The child's progress should be monitored and recorded in the POSHAN Tracker.
- **Step-9: Duration of Monitoring:** MAM Child needs to complete two months after achieving proper height and weight. SAM child needs to complete up to the age of 6 years.
- **Step-10: Follow-up Care:** Follow-up should be done for the children who become normal by height and weight.

### Government initiatives to address Malnutrition:

- **Saksham Anganwadi and Poshan 2.0 (Erstwhile Integrated Child Development Services-ICDS):** The Integrated Nutrition Support Programme seeks to address the challenges of malnutrition in children, adolescent girls, pregnant women and lactating mothers through a strategic shift in nutrition content and delivery to respond to the challenge of providing pre-school non-formal education on the one hand and break the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other.
  - Beneficiaries- children in the age group of 0-6 years, pregnant women and lactating mothers and adolescent girls in the age group 14-18 years (Only in Aspiration Districts).
- **PM-POSHAN scheme (Mid-Day Meal Scheme):** It is implemented by the Ministry of Education to meet the nutritional standards specified in the National Food Security Act (NFSA), 2013.
  - Under this, children of Bal Vatika (just before class I) and children studying in classes I-VIII or within the age group of 6-14 years are entitled to one mid-day meal free of charge every day except on school holidays, in all Government and Government aided schools.

### Way forward:

- **Decentralization Policy for Program implementation:** Panchayats/Block level/Districts should be allowed to have a more significant say in running welfare schemes.
  - Planning of services in discussion with District Health Officers.

- Fund flow and positioning of workforce and training.
- Infrastructure strengthening, if required at AWC.
- Quarterly review of the programme performance.

### Role of Medical Officers:

- Based on clinical history, treatment should be provided, keeping consistency and monthly progress reports submitted. This will bring transparency to the healthcare system, eventually leading to better health results in Rural India.

### PEPPER IT WITH:

ICDS, National Nutrition Mission, National Food Security Act, NFHS-5

## India Failed to Reduce Premature Births

### News excerpt:

According to the recent Lancet report, India has not improved in reducing preterm or premature births in the previous decade. India recorded 3.02 million preterm births in 2020- the highest worldwide- accounting for over 20 percent of all preterm births globally.

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### About:

- The research by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and the London School of Hygiene and Tropical Medical, UK, showed that over 50 percent of all preterm births in 2020 occurred in just 8 countries:

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- India is followed by Pakistan, Nigeria, China, Ethiopia, Bangladesh, the Democratic Republic of Congo, and the US.
- In South Asia, Bangladesh had the highest rate of preterm births in 2020 (16.2 percent), followed by Pakistan (14.4 percent) and India (13.0 percent).

### Definition:

Preterm births are babies **born before 37 weeks** of pregnancy compared to the normal term of 40 weeks. Based on gestational age, there are sub-categories of preterm birth –

- Extremely preterm** (less than 28 weeks)
- Very preterm** (between 28 and 32 weeks)
- Moderate to late preterm** (between 32 and 37 weeks).

### Why has Preterm birth is an issue in India during the last decade?

- According to the WHO data, preterm birth is the single largest killer of children under five.
  - An estimated 134 lakh babies were born prematurely in 2020, of which 30 lakh or 20 percent were from India.
- At all ages, preterm birth remains the 4<sup>th</sup> leading cause of loss of human capital worldwide after ischaemic heart disease, pneumonia, and diarrhoeal disease.

### Causes of Preterm Birth in India:

- Maternity Complications:** Most preterm births happen spontaneously due to **infections** or other **pregnancy complications, including multiple pregnancies or in vitro fertilization** requiring early labour induction or caesarean birth.
- Lifestyle diseases: Smoking, alcohol consumption, chronic heart diseases, diabetes, etc.,** also led to preterm births.
- Standard of living:** More than 90 percent of extremely preterm babies born in **low-income families** die within the first few days of life.

### Solution:

- Antenatal care:** A preterm pregnancy may be projected beforehand with proper antenatal care (ANC). Infections, the main causes of preterm births, can be diagnosed and treated.
  - The Lancet report suggests that an expectant mother should receive 8 antenatal checkups at a healthcare facility (currently, there are 4 antenatal checkups in India).
  - Intact survival will need to be delivered in a place with advanced neonatal intensive care units (NICUs) that have the expertise to cater for such babies.

- Reducing the rich-poor and rural-urban divide:** Nutritional deficiencies, particularly iron deficiency-anaemia need to be sorted at the primary level only.
- Investments:** Countries need to prioritise programmatic investments to prevent preterm birth and to ensure evidence-based quality care when preterm birth occurs.
  - It is crucial that preterm birth data quality can be improved and used for action and accountability processes.

### Way Forward:

The FIGO Working Group for Preterm Birth recognizes that reducing preterm birth at the population level requires the ability to track changes in the general population to determine the frequency and causes known to be associated with preterm birth.

### PEPPER IT WITH:

ANC, MR Vaccine, Janani Suraksha Yojana (JSY), Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)

## Intensified Mission Indradhanush (IMI) 5.0'

### News excerpt:

The Immunization drive known as '**Intensified Mission Indradhanush (IMI) 5.0'**, began in Tamil Nadu.

### About the Mission:

- Aim:**
  - To focus on reaching zero-dose children** (children who failed to receive any routine vaccination) aged between 0-5 years and pregnant women.
  - To eliminate measles and rubella, ensure every child under 5 has completed the **two-dose Measles and Rubella Containing Vaccine (MRCV) schedule**.
- Mission Indradhanush (MI) is a special campaign under the umbrella scheme - **Universal Immunization Program (UIP)**.
- Nodal Ministry:** Ministry of Health and Family Welfare
- The programme provides free vaccines against 12 life-

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- According to the data and facts, **over five lakh children** have not yet received their initial **Pentavalent-1 dose**, while over seven lakh children have missed their second dose of the measles-rubella (MR) vaccine.
- Alone, Uttar Pradesh in 2022 accounted for every fourth measles-rubella (MR) outbreak recorded in the country.

threatening diseases - Tuberculosis, Diphtheria, Pertussis, Tetanus, Polio, Hepatitis B, Pneumonia and Meningitis due to Haemophilus Influenzae type b (Hib), Measles, Rubella, Japanese Encephalitis (JE) and Rotavirus diarrhoea.

- The program is generally conducted in the **areas of low immunization** coverage to vaccinate all the children and pregnant women left out or dropped out from Routine Immunization.

### Progress of the IMI program over the years:

Missions	Coverage
<b>Intensified Mission Indradhanush (IMI) 2017</b>	To reach every <b>child under two years of age</b> and all those <b>pregnant women</b> left uncovered under the routine immunization programme.
<b>Intensified Mission Indradhanush (IMI) 2.0 2019</b>	Its objective was to attain a <b>minimum of 90 percent nationwide</b> immunization coverage <b>by 2022</b> .
<b>Intensified Mission Indradhanush (IMI) 3.0 2021</b>	It primarily concentrated on providing vaccines <b>to children and pregnant women who had not received immunization shots due to the Covid-19 pandemic</b> .
<b>Intensified Mission Indradhanush (IMI) 4.0 2022</b>	To extend Routine Immunization (RI) services to children and pregnant women <b>who have not been vaccinated or only partially vaccinated</b> .

### Challenges:

- **Ignorance:** Various myths and rumours spread by social media such as Facebook, YouTube, Twitter and WhatsApp about the impact and quality of vaccines are created due to ignorance.
- **Management and governance issue:** The programme management team, being less skilled or updated, specifically at the Block and District levels, needs a crisis management plan to avert any failure-like incidents.
- **Networking and information system:** Adverse Events Following Immunization (AEFI) post-vaccination dampens and derails the Immunization programme. Lack of clear information and communication about AEFI often leads to rumours and fears among caregivers, the larger community and stakeholders.

### Way Forward:

- **Training on protocol:** Every person responsible for implementing IMI must be fully aware of the AEFI protocol laid out in all training curriculums for both medical officers and health workers and ensure it is followed thoroughly.

- **Media preparedness and management:** Having a preparedness plan with media is always useful in case of panic created due to reporting, especially if there is a severe illness or an unfortunate death that may or may not be associated with immunization. Media briefs/ press releases frameworks must be prepared in advance for this.
- **Monitoring:** The platforms of social media, Facebook, Twitter, YouTube and WhatsApp, will be used to generate positive conversations around IMI and the benefits of complete immunization. The government needs to monitor the communications activities at all three levels.
- High-level political support, advocacy, supervision across sectors, and flexibility to reallocate financial resources and staff were essential for success.
- Districts must strengthen staff capacity to list household beneficiaries, add additional vaccination sites, and invest in the transportation required.
- Better communication and counselling skills tailored to local beliefs are needed to deal with barriers to seeking vaccinations.
- Districts and primary care facilities must work more effectively with non-health stakeholders by involving them early in logistics planning, communication, and messaging strategies.

#### PEPPER IT WITH:

ICDS, Janani Shishu Suraksha Karyakram (JSSK), MAA (Mothers' Absolute Affection) Programme for Infant and Young Child Feeding, Types of Vaccination

## Global Hunger Index – 2023

### News excerpt:

Alliance 2015, a peer network of seven European non-government organizations, recently released the Global Hunger Index 2023.

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### About the Global Hunger Index - 2023:

#### Global Observations:

- The 2023 GHI score for the world reflects a dangerous array of overlapping global and local crises, including the fallout of the **COVID-19 pandemic**, the **Russia-Ukraine war**, and **multiple violent conflicts** and **climate disasters** worldwide.
- Many countries are experiencing severe hunger in 2023, which is expected to worsen yearly.



### Hunger Levels Are Affected by Structural Conditions ...



The Global Hunger Index (GHI) is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels. GHI scores are based on the values of four component indicators:<sup>1</sup>



**Undernourishment:** the share of the population with insufficient caloric intake.



**Child wasting:** the share of children under age five who have low weight for their height, reflecting *acute* undernutrition.

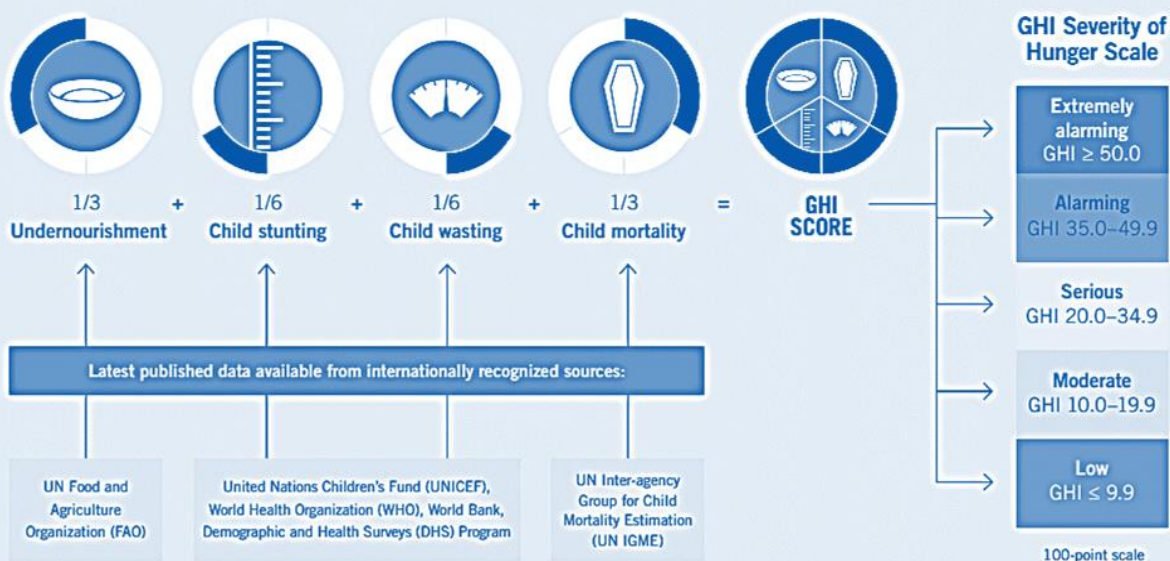


**Child stunting:** the share of children under age five who have low height for their age, reflecting *chronic* undernutrition.



**Child mortality:** the share of children who die before their fifth birthday, partly reflecting the fatal mix of inadequate nutrition and unhealthy environments.

These four indicators are aggregated as follows:



### KEY OUTCOMES FROM THE REPORT:

- **Global hunger remains too high, and progress on reducing hunger has largely stalled.** The 2023 global GHI score is 18.3—considered moderate—down less than one point from the 2015 global score of 19.1. The right to adequate food is violated for nearly three-quarters of a billion people daily.
- **This stagnation relative to 2015 primarily reflects the combined effects of several crises.** These include the COVID-19 pandemic, the Russia-Ukraine war, economic stagnation, the impacts of climate change, and the intractable conflicts facing many countries worldwide. Their compounding effects have led to a cost-of-living crisis and exhausted the coping capacity of many countries, especially those where hunger was already high before the crises hit due to power imbalances and structural obstacles to food and nutrition security.
- **The crises have aggravated inequalities between regions, countries, and groups.** While some countries have weathered them relatively well, others have experienced deepening hunger and nutrition problems.
- **The global effects of the COVID-19 pandemic, the Russia-Ukraine war, and higher food prices may be easing somewhat in 2023. However, climate conditions are worsening, and for many people, the food price is still unaffordable in many areas.** Less resilient regions, countries, and communities worldwide are expected to experience lasting hunger and nutrition setbacks and stand less prepared for future crises.
- **According to GHI projections, 58 countries will not achieve low hunger by 2030 at the current pace.** Projections suggest that none of the GHI indicators will meet the 2030 targets set by the Sustainable Development Goals (SDGs): the prevalence of undernourishment, child stunting, child wasting, and child mortality are all off track.
- **Many youth in low- and middle-income countries are particularly vulnerable to food security and nutrition crises.** This vulnerability is worrisome, given the importance of young people's health and nutrition status for future generations' well-being.

- The Russia-Ukraine war contributed to global food price spikes in 2022, threatening food security.

#### Regional Observations:

- India's ranking in the Global Hunger Index 2023 **fell to 111 out of 125 countries from 107 in 2022**.
- India has the highest **child-wasting rate in the world at 18.7 percent**, reflecting acute undernutrition.
- With a score of 28.7, **India** has a level of hunger that is "**serious**". India's neighbouring countries, Pakistan (102nd), Bangladesh (81st), Nepal (69th) and Sri Lanka (60th) fared better than it in the index.
- **South Asia and Africa South** of the Sahara are the world regions with the **highest hunger levels**, with a GHI score of 27 each, indicating severe hunger.
- Improving young people's **access to knowledge and education** is the key to strengthening their capacities to act as change agents in food systems transformation.

#### Indian Scenario:

- India has the **highest child-wasting rate** in the world, at 18.7 per cent, reflecting acute undernutrition. (*Wasting is measured based on children's weight relative to their height.*)
- According to the index, the rate of **undernourishment** in India stood at 16.6 per cent and under-five mortality at 3.1 percent.
- The prevalence of **anaemia in women** aged between 15 and 24 years stood at 58.1 percent. The Women and Child Development Ministry said the index suffers "serious methodological issues and shows a malafide intent".

#### Causes of rising hunger all over the Globe:

- **Food Insecurity and Malnutrition Jeopardize the Life Chances of Youth:** According to the reports, the youth are *emerging into adulthood in a context of inherently unequal and unsustainable food systems* that fail to deliver food and nutrition security and are highly vulnerable to climate change and environmental degradation. These shortcomings are particularly problematic given youth's unique food and nutrition needs, and the data showing these needs are not being met in low- and middle-income countries.
- **Current Food Systems Are Largely Failing Youth:** At the most basic level, current food systems must provide all people with sufficient nutritious food. Approximately 735 million people were affected by hunger in 2022, and more than 3.1 billion could not afford nutritionally rich diets in 2022.
- **Gender discrimination:** Gender also plays a role in youth's experiences of hunger and undernutrition. Women and girls make up about 60 percent of severely hungry people. In many low- and middle-income countries, women, particularly in Lower-

income groups are responsible for producing and preparing food and obtaining water and firewood. During food scarcity, women and girls often eat last and least, making them more vulnerable to food and nutrition insecurity.

- **The Loss of Food Sovereignty Weakens Food Systems:** The loss of food sovereignty, particularly in the world's low- and middle-income countries, has been hastened by several major factors, including colonialism, poor governance, and the intensive capitalization of food systems, the widespread growth of monocultures in agriculture, and some of the adverse outcomes of the Green Revolution. In many areas, local farmers are excluded from seed systems and have limited control over what they plant, relegating indigenous crops to neglected crops.

#### India's Reservations about GHI:

- **Methodological issues:**
    - 3 of the 4 indicators used are related to children's health and cannot represent the entire population.
    - The 4th indicator, estimating the Proportion of Undernourished (PoU) population, is based on an opinion poll conducted on a small sample size of 3000.
  - GHI ignores efforts made by the Government to ensure food security for the population. E.g.- IMF lauds **PM Garib Kalyan Ann Yojana** for preventing extreme poverty.
  - Scores not comparable across years: The index makes some specific years with benchmark values as reference years, there is no way of knowing whether India did better or worse than the previous year.
  - Over and underestimation: Using a uniform calorie benchmark to arrive at deficiency prevalence for India, GHI fails to recognise the enormous regional imbalances. E.g.- The Kerala and Tamil Nadu population may get counted as calorie deficient despite being better in nutritional outcome indicators.
- GHI puts a higher emphasis on undernutrition than on hunger and its hidden forms, including micronutrient deficiencies. It should be more precisely called 'The Global Human Nourishment Index.'

#### Way Forward:

- **Food sovereignty needs attention to four critical factors:** People and their rights, the quality of food produced, cultural aspects of food systems, and environmental well-being.
  - A global forum held in Nyeleni Village, Mali, in 2007 declared food sovereignty as "**the right of peoples to healthy and culturally appropriate food**" produced through ecologically sound and sustainable methods and their right to define their own food and agriculture systems.
  - In this way, **gender discrimination** can also be tackled.

- **Need for nutrition and food security assistance:** Food produced in an indigenous manner has long-term nutritious values and positive effects on human health. The current youth generation will eventually turn towards a dependable population, leading to a **rise in non-communicable diseases** if, at present, they are not prevented from intake of bad cholesterol.
  - **Water, sanitation, and hygiene** must be handled to help families live and eat better.
- **Promote behavioural measures** like Poshan Vatika, WASH practices, and **cultural knowledge**.
- **Policy making and Youth participation:** The share of youth in formal decision-making forums is negligible, and the increased focus on youth participation in some policy dialogues is necessary for a meaningful impact.
- **Economic recovery and market systems through up-skilling the entrepreneurial energy:** In the coming years, the **skilling-up programmes** can open new possibilities for business; training provided by the private sector can help to improve skills and product quality.

**PEPPER IT WITH:**

World Bank, World Health Organisation, National Health Mission, Ayushman Bharat Digital Mission

## Half the global population not covered by Essential Health Services: WB and WHO

### News excerpt:

As of 2021, over half the world's population- 4.5 billion people was not fully covered by essential health services, according to the report released jointly by the World Health Organization and the World Bank.

### Major highlights from the report:

- **Poor Health Care services:** While the overall health service coverage has improved since 2000, **progress has slowed since 2015**. Further, there is no improvement from 2019 to 2021.
- The most significant gains have been made in the **service coverage for infectious diseases**, which has witnessed an average yearly growth of 7 percent. According to WHO, there has been little to no improvement in service coverage for **non-communicable diseases and reproductive, maternal, newborn and child health services** in recent years.
  - Within countries, disadvantaged demographic sub-groups such as the poorest, least educated and those living in rural areas are more likely to **struggle to access healthcare services**.

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- Millions of people were denied access to measures that could have saved their lives and improved their health, as the score increased from 45 in 2000 to 68 in 2019, remaining steady through 2021.
- **Out Of Pocket (OOP) expenditure increased:** In 2019, around 13.5 percent of the global population spent over 10 percent of their household budget on healthcare. This is a 77 percent increase in the population suffering substantial OOP health costs during 2000-2019.
  - The growth of Universal Health Service Coverage (UHC) has stagnated since 2015, and financial protection for those who receive health services has worsened.
- **Undoing poverty eradication gains:** WHO's Triple Billion targets for 2019-2023 aim to increase the number of people benefiting from UHC by 1 billion. The initial set for 2018-2023 was subsequently extended to 2025 under the recommendation of Member States. But the world is not on track to achieve this target.

**PEPPER IT WITH:**

PM Garib Kalyan Ann Yojana, Nutritional Security, POSHAN Vatika

## India Needs Youth Mental Health Focus to Strike Demographic Gold

### News excerpt:

India, home to over 250 million adolescents aged 10-19 years, grapples with **various mental health challenges among its youth, with depression emerging as a significant concern**.

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### 10th October is marked as

**World Mental Health Day** to spread awareness and education about mental health issues worldwide.

- The first time World Mental Health Day was observed in 1992. It started as an annual World Federation for Mental Health activity by the then Deputy Secretary-General Richard Hunter.
- **Theme for 2023:** 'Mental Health as a Universal Human Right'.

### About Mental Health:

- According to **WHO**, Mental health is a fundamental human right for everyone.
- Everyone, whoever and wherever, has a right to the highest attainable standard of mental health.
  - This includes the right to be protected from mental health risks, the right to available,



accessible, acceptable, and good quality care, liberty, independence, and inclusion in the community.

#### Mental Health Status in India:

- WHO estimates that the burden of mental health problems in India is 2,443 Disability-Adjusted Life Years (DALYs) per 10,000 population, with an age-adjusted suicide rate of 21.1 per 100,000 people.
  - The contribution of mental disorders to the total DALYs in India increased from 2.5 percent in 1990 to 4.7 percent in 2017.
  - **DALYs** are the sum of the years of life lost due to premature mortality (YLLs) and the years lived with a disability (YLDs) due to prevalent cases of the disease or health condition in a population.
- **The economic loss due to mental health conditions:** It annually costs the global economy \$ 1.03 trillion (2012-2030) in lost productivity.
  - In 2017, 197.3 million people had mental disorders in India, including 45.7 million with depressive disorders and 44.9 million with anxiety disorders.
- **The Lancet report of 2019** – "The burden of mental disorders across the states of India: The Global Burden of Disease Study 1990–2017," states that one in seven Indians is affected by a mental disorder.

#### Initiatives to Promote Mental Health:

- **National Mental Health Program (NMHP):** Since 1982, the Government has been implementing the NMHP to address the enormous burden of mental disorders and a shortage of qualified professionals in the mental health field.
- **The Mental HealthCare Act of 2017:** It guarantees every affected person access to mental healthcare and treatment from government-run or funded services.
  - It decriminalized suicide in India.
- **Tele-MANAS App:** The National Tele Mental Health Programme of India launched a 24 x 7 tele-mental health facility through 51 functional Tele-MANAS (Mental Health and Normalcy Augmentation System) cells.

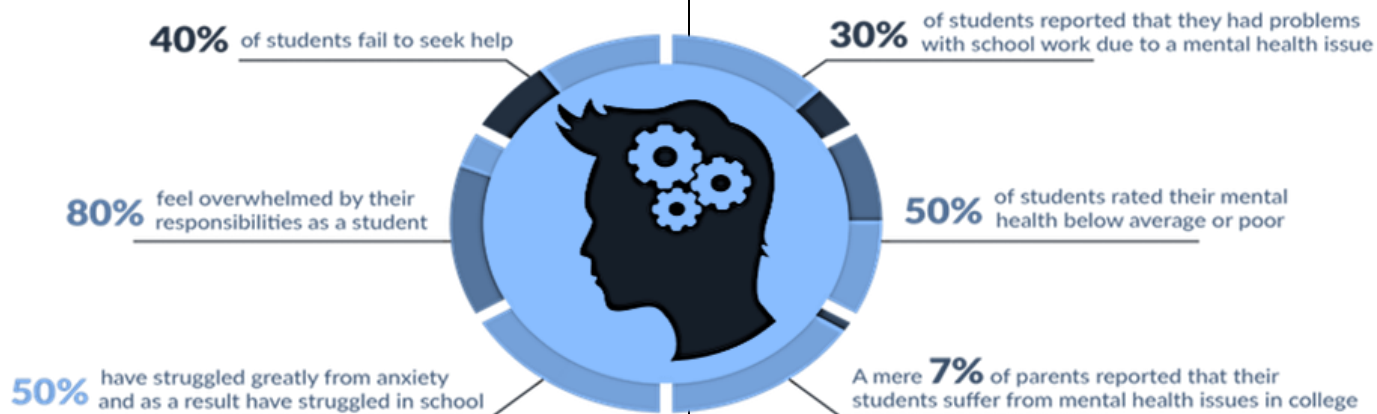
- **National Youth Policy:** The policy is aligned with the UN SDGs and recognizes young people as a critical national demographic, giving special attention to mostly overlooked issues such as mental health, substance abuse disorders, etc.
- **Draft UMMEED (Understand, Motivate, Manage, Empathise, Empower, Develop) Guidelines:** These are prepared by the Union Ministry of Education for schools to prevent student suicides with the underlying theme of "Every Child Matters",
- **Kiran Helpline:** In 2020, the Ministry of Social Justice and Empowerment launched the 'Kiran' toll-free helpline to support people experiencing anxiety, stress, depression, suicidal thoughts, etc.
- **Paro Declaration-** It was adopted by the WHO South-East Asia Region, committing to Universal Access to People-centered Mental Health Care and Services.

#### Ways to improve mental health issues in India:

- **Control and Prevention:** Ensure effective screening, control, and management of mental health diseases and establish a robust monitoring system to facilitate mid-course corrections leveraging technology.

#### Reasons for Under-Reporting of Mental Health Disorders:

- Poor awareness.
- Lack of help-seeking behaviour (stemming from stigma).
- Desire and/or expectations to be self-reliant.
- Insufficient prioritisation in the policy framework.
- **Community participation-** More stakeholders can be roped in to spread awareness about mental health. E.g.- the 'Whole School, Whole Community, Whole Child' model in the U.S.
- **Encourage help-seeking behaviour** by following these steps:
  - Establish peer support groups in schools and colleges,





- Organise activities regularly for relaxing and reducing stress,
- Provide channels and resources for expression,
- Integrate mental well-being into the curriculum.
- **Increase Access and Affordability:** Public-private partnerships, alliances, and collaborations can improve access to healthcare services for citizens, especially those from low-income groups and in rural and remote areas.
  - The flow of additional funds to provide optimal health services will ensure minimum mental healthcare for all by reducing the cost of healthcare services and products such as medicines and medical devices.
- **Improving Infrastructure:** More psychiatric units are required at the sub-district level for effective dissemination. Further, additional human resources are needed for preventive and curative strategies.
- **Capacity Building:** Providing training and education to healthcare professionals can build expertise in specialized areas.
  - While ASHAs may be trained to screen individuals for common mental health conditions, a new cadre of community mental health workers (CMHW) may also be created at the PHC level for screening and facilitating treatment.
- **Proactive policies:** A multi-sector approach that includes underlying factors like education and nutrition should be at the core of policies to realise the full potential of adolescents.
  - This will uphold the fundamental human right to good mental health and advance Sustainable Development Goals (SDGs), especially **SDG 3 (good health and well-being)** and **SDG 8 (decent work for all/economic growth)**.

### Way Forward:

Good health and well-being are essential for the overall development of a country, and India has been striving towards achieving this goal. Considering that India is currently in a demographic phase where a significant portion of its **population is of working age**, it is crucial to address the quality of employment and provide long-term social security for this demographic group.

#### PEPPER IT WITH:

Mental Health Act 2017, SDG Goals, Demographic Dividend, Paro Declaration

## India Ageing Report 2023

### News excerpt:

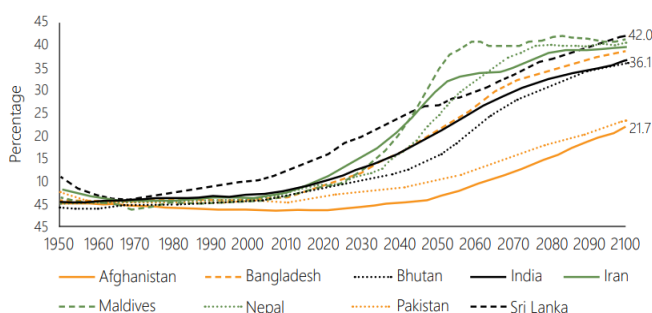
Population ageing in India is an inevitable and irreversible demographic reality associated with a welcome improvement in the country's health and medical care system.

### About the report:

- India Ageing Report 2023 focuses on the **institutional arrangements** that support the **National Policy for Older Persons implementation in India**.
- The report pools existing knowledge on population ageing in India and **maps senior-centric activities carried out by governmental and non-governmental organizations working with the elderly**.
- **Population ageing** is associated with a rise in the proportion of the population termed as 'old', usually at **60 or 65 years and above**.
- Population ageing has been more pronounced in developed nations as they have passed through their

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Figure 2.1: Percentage of the elderly population in South Asian countries, 1950–2100



demographic transition from high levels of fertility and mortality to lower levels, ahead of many developing countries.

### International Policy Frameworks on Ageing:

First World Assembly on Ageing, Vienna, 1982:	<ul style="list-style-type: none"> <li>• The first-ever World Assembly on Ageing was held in Vienna, Austria, in 1982 to generate worldwide attention on the global issue of population ageing.</li> <li>• The Vienna International Plan of Action on Ageing was the first international instrument on ageing, providing a basis for formulating policies and programmes on ageing; it was endorsed by the UN General Assembly in 1982.</li> </ul>
United Nations Principles for Older Persons, 1991:	<ul style="list-style-type: none"> <li>• In 1991, the General Assembly adopted the United Nations Principles for Older Persons based on the International Plan of Action on Ageing, 1982.</li> <li>• The principles provided that older persons in society ought to have independence, the ability to participate in society, access to care, the full dignity of life, and entitlement to self-fulfilment, among other rights.</li> </ul>

<p><b>Second World Assembly on Ageing, Madrid, 2002:</b></p>	<ul style="list-style-type: none"> <li>To mark the 20<sup>th</sup> anniversary of the First World Assembly on Ageing, the Second Assembly was held in Madrid, Spain, in 2002. It was devoted to an overall review of the outcome of that event in a global effort to address the 'demographic revolution' that was taking place worldwide.</li> <li>The main aim was to advance the global ageing agenda beyond the 1982 Plan of Action and address the global force of population ageing and its impact on development.</li> <li>Responding to growing concern over the speed and scale of global ageing, the Assembly adopted its main outcome documents—a Political Declaration and Madrid International Plan of Action on Ageing (MIPAA), 2002, covering three main priority directions:                         <ol style="list-style-type: none"> <li>Older persons and development;</li> <li>Advancing health and well-being into old age; and</li> <li>Ensuring enabling and supportive environments</li> </ol> </li> </ul>
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#### About Older Population and South Asian Scenario:

- With longevity and declining fertility rates, older persons (60 years and above) are growing globally faster than the general population.
- Three key demographic changes**—declining fertility, reduction in mortality and increasing survival at older ages—contribute to population ageing.
- However, in many developing countries like India, chronological age may have little to do with retirement as most elderly are engaged in the informal sector for as long as they can work, with no specific retirement age.

#### Indian Scenario:

- Differentials across states:** Southern states like Kerala, Tamil Nadu and Karnataka, along with states like Himachal Pradesh, Maharashtra, Odisha and Punjab, have a higher proportion of senior citizens (persons above 60 years of age) than states like Uttar Pradesh, Rajasthan, Madhya Pradesh, Bihar and Uttarakhand.
- The feminization of ageing:** According to Census 2011, the sex ratio among senior citizens was 1,033 females per 1,000 males, with elderly women having a higher life expectancy than elderly men.
- Ruralization of the elderly:** The Census 2011 also highlighted that approximately 71 percent of the senior citizens lived in rural areas.
- More women aged 80 years and above:** During 2000–2050, the population aged 80 years and above is projected to grow 700 percent, with pre-dominance of widows and highly dependent very older women.
- Decline in health status, income insecurity and compulsion to work:** Loss of spouse and consequent living arrangements increases dependency, and the inability to access social welfare benefits meant for them are some of the critical problems faced by the elderly in India.

#### Government Initiatives for Senior citizens through various programs:

- The Indian Constitution mandates the well-being of senior citizens under **Article 41**, which states: "The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and public assistance in cases of unemployment, old age, sickness and disablement, and other cases of undeserved want."

	Initiated by	Objectives
Antodaya Anna Yojana (2000)	Department of Food and Public Distribution (Ministry of Consumer Affairs, Food and Public Distribution)	Provides food grains at a highly subsidized rate (2 per kg for wheat and 3 per kg for rice) to widows/terminally ill persons/ PwDs/persons aged 60 years and above.
Annapurna Scheme (2000/01)	Ministry of Rural Development	Persons aged 65 years and above who are not receiving pension under the National Old Age Pension Scheme get 10 kg of food grains per person per month, free of cost.
Varishtha Pension Bima Yojana (2003; revived in 2014)	Ministry of Finance (Life Insurance Corporation of India)	Pension to senior citizens through LIC of India. The scheme has a lock-in period of 15 years, and the senior citizen can benefit from a (taxable) interest rate of 9 percent per annum for 10 years. Investments are eligible for tax exemption under Section 80C of the Income Tax Act 1961.
Scheme for Financial Assistance for Veteran Artists (2014/2015)	Ministry of Culture	Earlier known as the Artistes Pension Scheme and Welfare Fund (1961). Central government assistance of 6,000 as a monthly allowance is given to artists aged 60 years and above. In case of death, the spouse will receive lifetime benefits, and dependents will receive till marriage or employment or up to the age of 21, whichever is earlier. The financial assistance may be continued at the discretion of the central Government after examining the dependent's financial condition.
Atal Pension Yojana (2015)	Ministry of Finance (Pension Fund Regulatory and Development Authority)	Help unorganized sector workers save money as they earn and provide guaranteed return post-retirement. Fixed pension for the subscribers ranging from 1,000 to 5,000, receivable at 60 years if s/he joins and contributes between 18 and 40 years.

Pradhan Mantri Suraksha Bima Yojana		Government-backed accident insurance scheme. Available to people aged 18–70 with a bank account who consent to enable an auto-debit (₹12 per annum per member).
Senior Citizens' Savings Scheme (SCSS) 2019, amended in 2020	Ministry of Finance (Department of Economic Affairs)	Provide a regular income to those above 60 years of age. Tax benefits, safe investment, account transfer facility across the country, and a higher interest rate of 8.2 percent annually. Minimum deposit of ₹1,000 and a maximum of ₹3,000,000. Tenure-5 years, with premature withdrawal allowed under certain circumstances.

### Way Forward:

India needs collaboration and coordination at each level of health care governance. The main emphasis should be upon weekly geriatric clinic run by a trained medical officer. Along with it routine health assessment, home visits by rehabilitation worker for homebound/ bedridden elderly, and specialised Out-Patient-Department (OPD) in geriatric clinics should also be focused.

### PEPPER IT WITH:

Government Schemes for elderly, silver economy, geriatric healthcare in India.

## PRE-SHOTS

### “Women, Power and Cancer” Report: Lancet

#### News excerpt:

Recently, Lancet reported that **more than 63 percent of cancer deaths of Indian women were preventable.**

#### About the Lancet Report:

- A **Lancet Commission report** on gender and cancer treatment titled, **‘Women, Power and Cancer’** highlighted *societal apathy towards women’s health, lack of awareness and absence of quality expertise at the primary care level delayed their access to cancer prevention, detection and care.*

#### What does the report say?

- Infection was the most significant factor** for cancer in Indian women, contributing to **23 percent** of deaths.
- Tobacco is the second important risk factor**, contributing to 6 percent of cancer deaths.
- Alcohol and obesity** each contributed to 1 percent of cancer mortality in India.

- Women in India who were diagnosed with cancer died due to **family apathy, their own indifference to their condition, and lack of access and finances.**
  - The cancer deaths among women, the top three cancers in India are **breast, cervical, and ovarian.**
  - This included the **HPV virus, which causes cervical cancer, and Hepatitis B and C infections that increase the risk of liver cancer.**

#### Issues coincided with Cancer death:

#### Economic Impacts:

- BRICS** (Brazil, Russia, India, China, and South Africa) nations lost out on USD 46.3 billion **because of productivity loss** due to premature cancer deaths.
- It estimates that the value of **unpaid cancer caregiving by women** is about 3.66 percent of India's national health expenditure.

#### Prevailing Gender Gap:

- The **long-standing discriminatory practices** undermine women's interaction with the health system, leading to poorer outcomes for women.
- Women are **less likely to be in a position of power** and may be unable to determine their care.
- Patriarchy** dominates cancer **care, research, and policy-making.**

#### Sustainable Development Goals (SDGs) related to Ageing Population:

- SDG 1:** Eradicating poverty.
- SDG 3:** Ensuring healthy lives and well-being at all ages.
- SDG 5:** Promoting gender quality.
- SDG 8:** Full and productive employment and decent work for all.
- SDG 10:** Reducing inequalities among and within countries.
- SDG 11:** Making cities and human settlements inclusive, safe, resilient, and sustainable.

#### Way Forward:

- Regular Database Monitoring System:** Systematically collect gender and social demographic data for cancer health statistics for developing better-targeted interventions.
- Better government interventions:** Developing and enforcing policies to minimize cancer risks are necessary and strengthening laws for public health are urgently needed.
- Promoting Research and Development in this field:** Equal participation of women in cancer research is crucial, equitable access to research resources, leadership roles, and funding opportunities are crucial for ensuring diverse perspectives in cancer-related studies.

## MEITY directed Social Media intermediaries to remove Child Sexual Abuse Material (CSAM)

### News excerpt:

- Intermediaries, **including YouTube, X, and Telegram**, were also directed to implement content moderation algorithms and reporting mechanisms to prevent the dissemination of CSAM.
  - Compliance delays will result in the withdrawal of the safe harbour protection (immunity against third-party content) under **Section 79 of the IT Act**.
  - Noncompliance will be deemed a breach of **Rule 3(1)(b) and Rule 4(4) of the IT Rules, 2021**.

### The Section 79 of the IT Act:

**Section 79** in the **Information Technology Act of 2000** says that any social media intermediary will not be on the radar of legal action for any third-party information, data, or communication link made available or hosted by him. It further reveals that the available protection shall be applicable if the said intermediary does not, in any way, initiate the transmission of the message in question, select the receiver of the transmitted message, and not modify any information contained in the transmission.

### IT Rules, 2021:

- Rule 3(1)(b):** Mandates all intermediaries to ensure that their platform does not contain obscene "harmful to child" content.
- Rule 4(4):** Mandates bigger Intermediaries (more than 50 lakh users in India) to proactively identify and take down CSAM using technology-based solutions.

### About CSAM:

- CSAM (like child pornography) are part of **online child sexual abuse and exploitation (OCSAE)** that also incorporates activities such as luring children into sexual chats, grooming, etc.
- About **4.5 lakh cases** of spread of CSAM have been **reported in 2023** in India.
- Key Legal framework:** IT Act (2000), Protection of Children from Sexual Offences Act (2012), National Cyber Security Policy (2013), etc.

### Challenges:

- Inadequate knowledge of cyber laws** and limited enforcement capacities.
- Infrastructure deficits** in cyber forensic labs.
- No special or **fast-track courts** for cyber offences.
- Concentration of **facilities for counselling and rehabilitation** in urban areas.

### Way Forward:

- Develop a **National Framework for Child Online Safety**.
- Institutionalize** digital safety and literacy.
- Enhance capacities and resources** of police and cyber forensic labs.

## Stroke could cause about 10 million deaths annually by 2050: Study

### News excerpt:

The new Lancet report states that stroke deaths will increase from 6.6 million in 2020 to 9.7 million in 2050.

### Population concerns associated with Heart Strokes:

- Global Scenario:** Stroke's health and economic impacts will disproportionately affect **lower and middle-income countries (LMICs)** between 2020 and 2050.
- Indian Scenario:**

As many as 51.8 percent of people in **Punjab** suffered from **hypertension, resulting in heart stroke**. However, the condition afflicted just 24.3 percent of people in **Meghalaya**.

- In **Puducherry**, 53.3 percent of the people had **heart stroke due to obesity**, but this percentage was just 11.6 in **Jharkhand**.
- Although **all metabolic NCDs** are more common in urban regions, rural areas have significantly greater prevalence rates than previously reported.
- Higher prevalence rates of both generalized and abdominal obesity were observed in urban areas compared with rural areas.

Hence, the prevalence of **diabetes and other metabolic non-communicable diseases (NCDs)**, known as lifestyle diseases, in India is considerably higher than previously estimated reasons for heart strokes across states and regions.

### Increasing Economic burden due to Heart strokes:

- Deaths due to CVD in the working age group (25 to 64 years) resulted in 9.2 million potentially productive years of life being lost in 2000 and is expected to increase to a loss of 17.9 million years by 2030.
  - It was estimated to be \$9 billion in national income from premature deaths due to heart disease, stroke, and diabetes in 2005 alone.

### Increasing Social burden due Heart strokes:

- India spends less than 1 percent on health care compared to 17 percent in the US. Since the Government spends only 17-18 percent of this, the **out-of-pocket health expenses** incurred by **middle-class households** are as high as 80 percent or more.
  - This factor eventually increases the **rich-poor gap, influencing social inequality and disparity**.



### Way Forward:

- **WHO** calls for prioritizing hypertension prevention, early detection, and effective management as part of the **National Health Benefit Package**.
- Through Government initiatives like the **India Hypertension Control Initiative Programme** and the **non-communicable disease** screening and treatment at the primary healthcare level, **India can** put 75 million patients related to **hypertension or diabetes** on standard care by **2025**.
- Legislative regulation of taxation of unhealthy products (salt, alcohol, sugary drinks, trans fat, etc.)
- Keep a healthy diet and weight, avoid alcohol and tobacco, and practice regular exercise and yoga.

### 27<sup>th</sup> World Road Congress

#### News excerpt:

Union Minister for Road Transport and Highways addresses the Ministerial Session at the 27th World Road Congress in Prague, Czech Republic, **focusing on Road Safety**.

#### About the news:

- **THEME:** "Together on the Road Again".
- In India, about 80,000 people are killed in road crashes yearly, **i.e., 13 percent of the total fatality worldwide**.
- According to a World Bank study, road accidents in India each year kill about 150,000 people and injure another 450,000.

### About World Heart Day (WHD)- 29<sup>th</sup> September:

- WHD was established in partnership with the **World Health Organization (WHO)** to create an annual event to raise awareness and mobilize international action against cardiovascular diseases.
- India has taken various steps in automobile safety with flagship programs such as **BHARAT NCAP**. It is focused on spreading awareness **to effect behavioural change** and ensuring **flawless rule enforcement**.
- **Stockholm Declaration:** It was signed in the "3rd High-Level Global Conference on Road Safety for Achieving Global Goals 2030" in **2020**.
- **Objective-** To bring road safety on the global agenda and renew the world community's commitment to safer roads.
- **Aim-** Halving the number of road fatalities and severe injuries by 2030.
- **SDG Target 3.6-** Halving the number of global deaths and injuries from road traffic accidents.
- **Brasilia Declaration:** India signed this at the 2nd High-Level Global Conference on Traffic Safety **2015**. It recommended strengthening existing legislation, adopting sustainable transport and strengthening the post-crash response.

#### Outcome:

The Union Minister reiterated the commitment to achieving global road safety targets set in the Stockholm Declaration during the 27th World Road Congress.

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## ECONOMY

## Nobel Prize in Economic Sciences 2023

## News excerpt:

**Claudia Goldin** has won the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2023.

She has provided the first comprehensive account of women's earnings and labour market participation through the centuries. Her research reveals the causes of change as well as the main sources of the remaining gender gap.

Alfred Nobel constituted a series of prizes in Physics, Chemistry, Physiology or Medicine, Literature, and Peace – the Nobel Prizes. In 1968, **Sveriges Riksbank (Sweden's central bank)** established The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.

## In-depth:

- **The first two female winners were:** (only three women have so far won this prestigious prize).
- 1. **Elinor Ostrom:** She became the first woman to win the prestigious Nobel Prize in Economic Sciences in 2009. She was awarded for her analysis of economic governance, especially the "Tragedy of Commons."
- 2. **Ester Duflo:** She was awarded in 2019, for her experimental approach to alleviating global poverty.

## Professor Claudia Goldin's work:

- She won this award for "**having advanced our understanding of women's labour market outcomes**".
- She researched the 200 years of archives of the United States of America to **demonstrate how and why gender differences in earnings and employment rates have changed over time**.

## Her findings:

## How has the pattern changed?

She **contradicted the popular belief** that the participation of women in the workforce showcases a linear upward trend when plotted against time. She confirmed that the data shows a **U-shaped curve** i.e., a decrease is noticed at first with an increase later on.

- The participation of **married women** decreased with the transition from an agrarian to an industrial society in the early nineteenth century but then started to increase with the growth of the service sector in the early twentieth century. **Goldin explained this pattern as the result of structural change and evolving social norms regarding women's responsibilities for home and family.**

- During the twentieth century, women's education levels continuously increased, and in most high-income countries they are now substantially higher than for men. **Access to contraceptive pills was an important factor** in this shift as this allowed women to plan both their careers as well as families for the

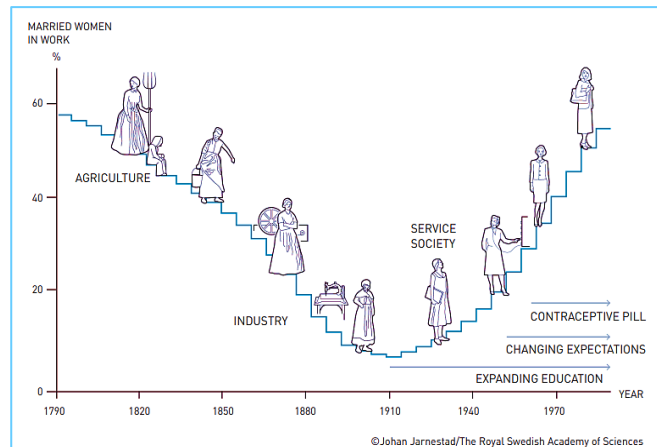


Figure: The participation of women as tracked against time. Also indicated are the major changes that took place with the changing scenario.

long run.

## Why has the pattern changed?

- She noted that only about **50% of all women** are actively seeking work or are in paid employment, while the corresponding figure for men is 80%. **Those women who participate earn significantly less than their male counterparts for the same occupation.**
- Data shows that despite modernization, economic growth, and rising proportions of employed women in the 20th century, for a long period, the earnings gap hardly closed. Historically, much of the gender gap in earnings could be explained by differences in education and occupational choices.
- However, Goldin has shown that the bulk of this earnings difference is now between men and women in the same occupation and that it largely **arises with the birth of the first child**. She explains that educational decisions, which impact a lifetime of career opportunities, are made at a relatively young age.
- **Opportunities for paid female work expanded in the 20th century with,**
  - structural change attributable to the expansion of white-collar work (work at a desk under office settings like professional service, administrative work, etc.
  - technological change affecting the nature of work at the office and home.

- changes in access to education, such as the expansion of secondary schooling for women.

Yet social stigma attached to the employment of married women and explicit institutional barriers (i.e., so-called **marriage bars**) severely limited the impact of improved opportunities.

#### Way Forward:

- Understanding women's role in the labour market is important for society as it provides a better understanding of the labour market.
- As data demonstrates the worsening gender divide, this Nobel Prize puts a fundamental debate in focus.
- As **SDG-5 focuses on achieving Gender Equality till 2030**, this debate would provide ample premises to the policymakers as well as the society to work on improving the conditions of half of the workforce.

#### Marriage Bars:

It is the requirement that women working in certain jobs must leave that job when they marry. It was widely prevalent till the 1960s in the developed countries.

#### PEPPER IT WITH:

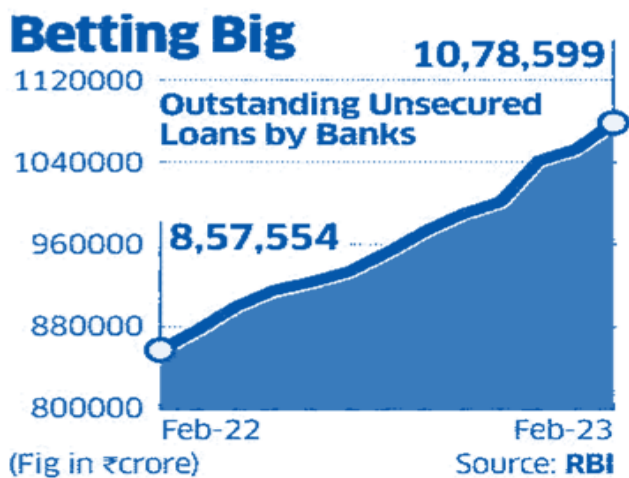
SDG Goals, Gender Inequality Index (WHO), Periodic Labour force survey (PLFS)

## Rising Unsecured Loans in India

### News excerpt:

Banks in India are seeing a rise in stress related to unsecured personal loans.

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### More details on the news:

- The risk of Indian banks' unsecured **retail loans** is rising as lending to borrowers with overdue debt has increased.

- The share of loans to borrowers with **weaker risk profiles** has risen along with an increase in retail borrowers' leverage.
  - This share with overdue loans rose to **23%** in fiscal year 2022-23 from 12% in fiscal 2018-19.
- As per **RBI data**, the share of unsecured loans in their non-food, non-agricultural portfolio, after large corporates, home loans, and loans to **NBFCs**, has risen from 5.6% in March 2019 to 8% in April 2023.
- Additionally, the **credit card segment**, although smaller in size, has also witnessed a doubling in outstanding balances from Rs 91,913 crore to Rs 2 lakh crore during the same period.

Secured	VS.	Unsecured
Guaranteed by collateral, such as a home		Not guaranteed by any asset
Low Interest Rate		Higher Interest rate
Higher Credit limit		Lower credit limit
If borrower defaults, lender can seize collateral		More difficult to get approved by lenders
Example: Home mortgage or car loan		Example: Credit card

### What are Unsecured Loans?

- Does not require any type of **collateral**.
- **Riskier** than secured loans for lenders, so they require higher credit scores for approval.
- If a borrower defaults, the lender may commission a debt collection agency or take the borrower to court. E.g.-Credit cards, student loans, and personal loans.

### Benefits of unsecured loans:

- **Promote entrepreneurship:** Unsecured loans can help aspiring entrepreneurs start and grow their businesses.
- **Financial Inclusion:** It promotes financial inclusion by providing access to credit for individuals and businesses who may not have valuable assets to use as collateral.
- **Faster approval processes:** The borrowers can access funds quickly in times of need, which can be vital for addressing emergencies.
- **Credit products diversification:** Unsecured loans contribute to a diverse range of credit products available in the market, giving borrowers a wider choice.
- **No collateral:** It does not require a customer to pledge assets as collateral. It means a customer is not at risk of losing property if he/she cannot repay the loan.

### Challenges of unsecured loan:

- **Destabilize financial system:** A large number of borrowers defaulting on their unsecured loans can



lead to significant financial losses for lending institutions, potentially destabilizing the financial system if left unchecked, also leading to a significant increase in **NPAs**.

- **Economic Inequality:** Uneven access to unsecured loans can contribute to economic inequality.
- **High-interest rates:** Due to higher interest rates, the borrowers may end up paying a significant amount in interest over the life of the loan.
- **Over-indebtedness of customers:** High availability of unsecured loans can lead to consumer over-indebtedness, impacting personal finances.
- **Default risk:** Since there is no collateral involved, lenders face a higher risk of default on unsecured loans.

#### Steps taken:

- The **RBI regularly monitors the financial health of banks and NBFC** to ensure they maintain adequate capital and liquidity to withstand shocks related to unsecured loans.
- RBI has asked the Banks and NBFCs to strengthen their internal **surveillance mechanisms** and address the build-up of risks.
- It has asked banks to monitor their unsecured **lending portfolios**, more specifically **credit cards**.

#### PEPPER IT WITH:

Indian Banking System,  
RBI, NBFC, Prompt  
Corrective Action

#### Way forward:

Unsecured loans can be a **double-edged sword** as they have the potential to spur growth and empower individuals, but the unchecked rise in unsecured lending can jeopardize financial stability.

- Strike **harmonious balance** through collaboration with international financial institutions to share best practices, **regulatory frameworks** for digital and online lending platforms to ensure compliance and implement **strict underwriting standards** to evaluate borrowers' creditworthiness.

Also, educate consumers about the potential consequences and safeguard them from abusive lending practices, and encourage financial institutions to offer affordable, small loan products to low-income borrowers.

### RBI proposal to classify a borrower as a "Willful Defaulter"

#### News excerpt:

Banks are expected to witness a spike in willful defaults following the RBI proposal to classify a borrower as a willful defaulter

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**within six months of the account becoming a non-performing asset (NPA).**

#### More details on the news:

- The Reserve Bank of India has issued a draft paper for handling willful defaulters, wherein it has expanded the scope for regulated entities that can classify borrowers as willful defaulters, refined the identification process and mandates a review and finalization on willful default aspects within six months of an account being classified as NPA.
- The willful defaulters will be eligible for compromise settlements as per a June 2023 circular of the RBI, earlier they were kept out of this settlement.
- In 2019 the RBI, in its '**Prudential Framework for Resolution of Stressed Assets**', made clear that the borrowers who committed frauds/ malfeasance/ willful default would remain ineligible for loan restructuring.

#### Criticism of RBI's decision:

- The RBI's latest '**Framework for compromise settlements and technical write-offs**' is considered by some people as a "detrimental step that may compromise the integrity of the banking system and undermine the efforts to combat willful defaulters effectively".
- It not only rewards unscrupulous borrowers but also sends a distressing message to honest borrowers who strive to meet their financial obligations.
- According to the bank unions allowing compromise settlement for accounts classified as fraud or willful defaulters is an affront to the principles of justice and accountability.

### RISE IN WILFUL

Bank	No. of Accounts	Amount
Nationalised banks	11,93	193,596
Pvt banks	2,332	54,250
SBI	1,921	79,271
PNB	2,231	41,353
Union Bank	1,831	35,623
BoB	2,220	22,754
IDBI Bank	340	24,192
<b>Total</b>	<b>16,883</b>	<b>353,874</b>

Source: TransUnion Cibil \*(As of March 2023) Amount in 'crore

- By allowing them to settle their loans under compromise, the RBI is essentially condoning their wrongful actions and placing the burden of their misdeeds on the shoulders of ordinary citizens and hardworking bank employees.



- The willful defaults have a significant impact on the financial stability of banks and the overall economy.
- Many in the banking sector are afraid that the new decision will not only lead to the erosion of public trust in the banking sector but also undermine the confidence of depositors.

#### Who are willful defaulters?

- 'Willful default' would be deemed to have occurred if the borrower has defaulted in meeting their repayment obligations to the lender even when they have the capacity to honour the obligations.
- A willful default happens when the borrower has not utilised the finance from the lender for the specific purpose for which finance was availed and has diverted the funds for other purposes without the knowledge of the bank.

#### Compromise settlement:

- Compromise settlement refers to a **negotiated settlement** where a borrower offers to pay, and the bank agrees to accept in full and final settlement of its dues an amount less than the total amount due to them under the loan contract.
- This settlement invariably involves a certain sacrifice by way of **write-off and/or waiver** of a portion of the lender's dues on a one-time basis.
- In India, banks had approved **several compromise settlements** running into hundreds of crores with huge reductions of outstanding payments or loans that will not be repaid by the borrowers – between 2000 and 2014, leading to huge losses for banks.
- The central bank also directed banks that willful defaulter can get fresh loans after 12 months of executing compromise settlement.

#### How willful defaulters affect the economy?

- **Impact on the Economy:** The impact of willful defaulters is not limited to the banking sector; it also extends to the broader economy and can stifle economic growth.
- **Affects the financial health of banks:** Deliberate default on loans directly affects the financial health of the banks.
- **Rising NPA:** Willful defaulters contribute to the rising Non-Performing Assets (NPAs) in the banking sector.

#### Non-performing asset (NPA):

A non-performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.

- For example - Vijay Mallya, became a willful defaulter on loans exceeding Rs 9,000 crore, leading to a significant NPA issue for banks.

- **Trust erosion:** Willful defaulters erode the trust of banks and financial institutions.
  - Example - Nirav Modi, who was involved in a massive fraud at Punjab National Bank, is an example of how trust can be severely damaged.
- **Impact on the market:** When major business figures or companies are found to be willful defaulters, it can lead to a loss of investor confidence in the corporate sector, affecting stock prices and market stability.

#### Way forward:

Minimizing willful defaulters in the Indian banking system requires a multifaceted approach.

RBI needs to strengthen the regulatory framework, take swift and decisive actions against defaulters, and follow the due diligence process while approving loans. Also, it should establish whistleblower protection mechanism and robust monitoring system and utilize advanced credit scoring models

#### PEPPER IT WITH:

Economic Offenders, SMAs (Special Mention Account), Fugitive Economic Offenders Act

### Rise in Global debt: Institute of International Finance (IIF) report

#### News Excerpt:

As per the Institute of International Finance (IIF) report, Global debt rose to an all-time high of \$307 trillion by the end of June 2023. Noticeably, Global debt has risen by about \$100 trillion over the last decade only.

#### What is global debt?

Global debt refers to the **borrowings of governments, private businesses, and individuals**. Governments borrow to meet various expenditures that they are unable to meet through tax and other revenues. Governments may also borrow to pay interest on the money that they have already borrowed to fund past expenditures. The private sector borrows predominantly to make investments.

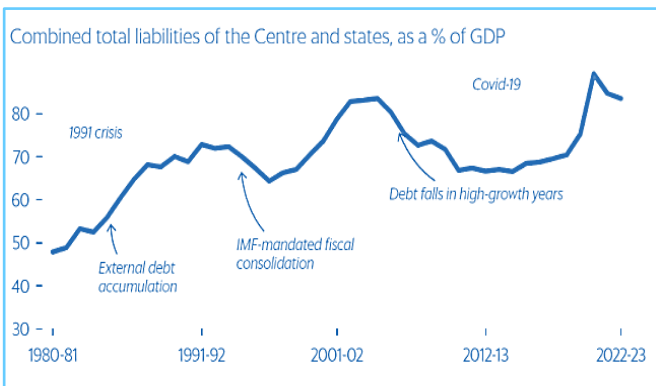
#### State of Global Debt:

- As per IMF, Global public debt tripled since the mid-1970s to reach 92 percent of GDP (or just above \$91 trillion) by end-2022.
- More than 80% of the rise in debt in the first half of 2023 has come from advanced economies such as U.K. & U.S.A.
- Among emerging markets, the biggest rise came from China, India, and Brazil.
- The US (\$ 30.1 trillion) owes as much money as the next four countries with the highest debt including

China (\$14 trillion), Japan (\$10.2 trillion), France (\$3.1 trillion), and Italy (\$2.9 trillion).

### Is Indian Debt sustainable?

- **Middle of the rank:** India falls in the middle of the ranks of indebted countries than the debt-heavy US or Japan, but worse than comparable emerging economies.
  - In 2020, total liabilities of the Centre and states hit an all-time high of 89.3% of GDP, mainly due to central spending on **COVID-19 relief**. It declined in the following years but remains around 84% of GDP, which is fairly high for an emerging economy.



**Rollover risk is a risk associated with the refinancing of debt.** It is commonly faced by countries and companies when a loan or other debt obligation (like a bond) is about to mature and needs to be converted (rolled over) into new debt.

- **Long tenure and fixed rate coupons:** India's public debt is dominated by loans with long tenure and fixed rate coupons. Longer tenures are known to reduce rollover risk.
- **Low share of floating rate debt:** The low share of floating rate debt (5.6% of central government debt (March 2021) reduces interest rate risk.
  - US dollar-denominated debt remained the largest component of India's external debt, with a share of 54.4 percent at end-June 2023, followed by debt denominated in the Indian rupee (30.4 percent), and the rest with SDR (5.9 percent), Yen (5.7 percent), and the Euro (3.0 percent).
- **GDP growth higher than borrowing:** India's GDP growth has usually been higher than the government borrowing rate.

Thus, India's debt is considered to be sustainable, meaning that it is expected to **meet its current and future debt obligations** without default.

### Causes for rising global debt:

- **Rising interest:** During the first half of 2023, total global debt rose by \$10 trillion. This has happened

amid rising interest rates, which were expected to adversely affect demand for loans.

- **Rising money supply:** A rise in debt levels over time is expected since the total money supply usually rises each year in countries across the globe.
- **Economic recession:** As per the World Bank, the world may be edging towards a global recession in 2023. The spending of the government typically increases to stimulate economic growth and provide relief, **leading to higher debt levels**.
- **Budget deficits:** A budget deficit takes place when the government spends more money than it collects in revenue. To cover these deficits, they issue bonds and accumulate debt.
- **Currency Devaluation:** Countries experiencing currency devaluation might see their debt levels rise when their debt is denominated in foreign currencies.

### Implications of rising global debt:

- **Unsustainability:** Rising global debt levels usually lead to concerns about the sustainability of such debt.
  - Excessive public debt leads to erosion of economic power, with dampening effects kicking in around debt reaching 78 percent of GDP.
- **Default risk:** Rising interest rates can increase pressure on governments and force them to either default outright or **inflate away their debt**.

### Inflating away public debt:

Inflating away public debt refers to the idea that a **government can reduce the real value of its debt by creating inflation**. The theory is that as prices rise, the value of the debt, which is fixed in nominal terms, will decrease in real terms.

- **Austerity Measures:** The governments may implement austerity measures to control debt in the form of cutting public services and raising taxes which can be economically challenging.
- **Impact on future generations:** High levels of government debt may be passed onto future generations, limiting their economic opportunities and freedom to make fiscal decisions.
- **Crowd out the private sector:** High levels of government debt can crowd out private sector investment by absorbing available funds in the financial markets, affecting growth in the economy.
- **Downgrading by credit rating agencies:** Credit rating agencies may downgrade the creditworthiness of a country if its debt levels become unsustainable, leading to higher interest rates and high borrowing costs.

### How to properly and sustainably manage Debt?

- **Debt restructuring:** When there is a risk of default, it is better to consider debt restructuring or rescheduling to provide relief and ensure sustainability.

- **Manage exchange rates:** To ensure competitiveness in international trade and to minimize the risk of currency devaluation, it is important to manage the exchange rates carefully.
- **Assistance from Global Agencies:** It is vital to encourage international financial institutions such as the IMF and World Bank to provide financial assistance to heavily indebted and vulnerable economies.
- **Other suggestions:** Boost alternatives to borrowing, manage borrowing and lending better, increase accountability to improve the behaviour of borrowers & lenders, and introduce better ways of managing shocks and crises.

**Way forward:**

Not all debt is inherently bad, as it can be used to fund investments in infrastructure, education, and technology which ultimately leads to economic growth. However, unsustainable levels of debt can have detrimental effects on economies and societies, making it crucial for governments to strike a balance between borrowing for growth and maintaining fiscal responsibility.

**PEPPER IT WITH:**

Debt to GDP Ratio,  
Coupon bonds, Credit  
Rating Agencies,  
Devaluation, Inflation

**Rise in US bond yields impacts on India****News excerpt:**

The ongoing increase in bond yields in the US may result in a further decline in the Indian equity market.

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- The yield on the 10-year US Treasury bond has surpassed **4.8 percent**, the highest level in over **16 years**, and nearly **45 per cent higher** than the **25-year average yield of 3.3 percent**.
- Historically, there is a **negative correlation between the yield or interest rate on risk-free government bonds and the price of risky assets such as equities**.

**Bond yields as an economic indicator:**

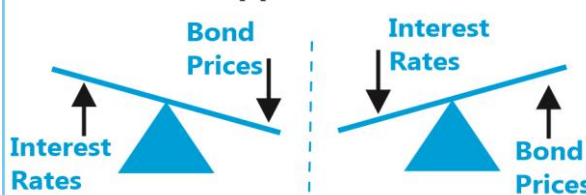
- **High yield as risk indicator:** A very high yield indicates greater risk. If the yield offered by a bond is much higher than what it was when issued, there is a chance that the **company or government that issued it is financially stressed** and may not be able to repay the capital.
- **Investor confidence:** Government bonds are relatively more stable but **low demand at auctions indicates low investor confidence** in the country's economy.
- **Factors impacting yield:** A whole host of factors including recessions, inflation, and bank rate set by central banks can have an impact on bond yields.

**What is a bond?**

- It is a debt instrument that provides investors with a steady income stream via interest payments and repays the principal amount on a pre-defined maturity date.

**What is bond yield?**

- A bond's yield is the return an investor expects to receive each year over its term to maturity.
- A bond can be purchased for more than its face value, at a premium, or less than its face value, at a discount. Price and yield are inversely related and as the price of a bond goes up, its yield goes down.

**Bond Funds & Interest Rates Move in Opposite Direction****Relation between interest rates and bond price & bond yield**

- **Interest rates:** These rates are set by RBI, influences the overall cost of borrowing, and returns on investments. **Higher interest rates generally attract foreign investors** seeking better returns, while lower rates may deter them.
- **Bond Prices:** Bond prices have an inverse correlation to interest rate movements, that is, if market rates increase after a bond issue, the price of these bonds declines, and vice-versa.

**Bond Yields:** Bond yields reflect the fixed interest payments as a percentage of the bond's current price. **Rising interest rates lead to higher bond yields, making bonds more attractive** to foreign investors seeking better returns.

- In developing **countries like India** where the **government is among the biggest investors** in the economy, bond yields can be a useful parameter in assessing economic health, unlike in countries where private enterprise drives the engine of growth.

**Reasons for recent bond yield rise in the US:**

- **Increased U.S. Treasury Debt Issuance:** The U.S. Treasury surprised the bond market when it announced a significantly larger need to raise money than expected.
- **Inflation Expectations:** Current USA is having high inflationary trends. Bond yields tend to **rise in an inflationary environment**.
- **Strong economic data** in the US and **hawkish comments** from the US Federal Reserve officials have raised bets that the interest rates will remain higher for longer, leading to a spike in bond yields.

### Impact of rising US bond yields on India:

- The movement in the yield on US Treasury bonds affects the Indian equity market **through foreign portfolio investment (FPI) and Foreign Institutional Investors (FII) in equities.**
- When bond yields decline** in the US, investment in Indian equities becomes **more attractive.** FPIs become net buyers, leading to a rise in stock prices and an expansion in Indian markets.

#### PEPPER IT WITH:

FPI, FDI, FII, RBI Consumer Confidence Survey

### Way forward:

There is a need for diversion of the export market along with stabilisation of the exchange rate and steps must be taken to attract more FDI to build RBI Currency Reserve which can be used wisely in such situations.

## Changes in PLI scheme for white goods

### News excerpt:

The central government has introduced changes to the rules governing the production-linked incentive (PLI) scheme for white goods.

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### Changes incorporated in PLI Scheme for white goods:

- Shift to Cost-Plus Method:** One significant alteration is the adoption of the "**Cost-Plus**" method instead of the "**Comparable Uncontrolled Price**" (CUP) method for calculating sales prices in cases of captive consumption or supplies to group companies. This shift also necessitates changes to the definition of "**Arm's length.**"
- Eligible Investments Expanded:** The revised guidelines now consider investments in Tool rooms for manufacturing **Moulds and Dies** as eligible under Capital Investment. This expansion broadens the scope of investment avenues for beneficiaries.

**White goods:** Consumer durables or **home appliances**, which were **traditionally available only in white.** They include appliances such as washing machines, air conditioners, LED lights stoves, refrigerators, etc.

#### PLI scheme:

Production Linked Incentive (PLI) is a form of performance-linked incentive to give companies **incentives** on **incremental sales** from products manufactured in **domestic** units. It is aimed at boosting the manufacturing sector and to **reduce** imports.

- Extension for Reporting New Facilities:** Beneficiaries are now granted an additional year over and above the initial two years for reporting the establishment of an additional manufacturing facility.
- Revised Claim Submission Date:** The last date for submission of claims and refunds of excess incentives due to discrepancies between statutory compliance and records provided at the time of claim filing has been updated.
- Administrative Ministry Site Visits:** The amendment allows for site visits by the Administrative Ministry to ensure compliance with the scheme.
- Roll Over of Bank Guarantee:** Bank guarantees can now be rolled over, providing flexibility to beneficiaries.

### Need/ Opportunities for PLI Scheme for white goods in India:

- India's white goods market is projected to surpass US\$21 billion by 2025, at a compound annual growth rate (**CAGR**) of **12 %.**
- On average, domestic manufacturing contributes approximately US\$4.6 billion to this industry.

### PLI scheme for white goods:

- To promote **Atmanirbhar Bharat**, the PLI scheme for white goods for the manufacturing of components and sub-assemblies of **ACs and LED lights** was notified by the **Department for Promotion of Industry and Internal Trade (DPIIT)** in 2021. The scheme is to be implemented over a **seven-year period, from FY22 to FY29.**
- This initiative is expected to significantly boost **domestic** value addition, elevating it from the current **15-20 %** to an impressive **75-80 %.**

### Significance of white goods in PLI Scheme:

- Reduce reliance on imported appliances:** The PLI scheme aims to reduce the country's reliance on imported appliances by encouraging domestic production, thus **decreasing** the **trade deficit.**
- Stimulating economic growth:** Increased production and consumption of these appliances contribute to **higher GDP** and create employment opportunities.
- International standards:** The scheme encourages companies to meet international quality and safety standards, improving the quality of white goods.
- Better supply chain ecosystem:** The growth in white goods manufacturing can encourage the development of a robust supply chain ecosystem making India an integral part of the global supply chains.
- Advancement of technology:** To qualify for PLI benefits, manufacturers are encouraged to invest in advanced technology, research and development, and innovation.



**Way Forward:**

The recent changes introduced in the PLI for White Goods signify the government's commitment to promoting the domestic manufacturing ecosystem and bolstering India's presence in global supply chains. These modifications seek to streamline the scheme's operation, attract investment, and enhance the ease of doing business, thereby contributing to the "Atmanirbhar Bharat" vision of self-reliance.

**PEPPER IT WITH:**

Make In India, Types of Goods, Balance of Payment

**Illicit Trade at 5% Of India's GDP****News Excerpt:**

A recent **FICCI (Federation of Indian Chambers of Commerce & Industry)** Report based on data from international agencies states that the impact of India's illicit financial flows works out to around 5 percent of its GDP.

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- As per a report released by FICCI CASCADE - 'Hidden Streams: Linkages Between Illicit Markets, Financial Flows, Organised Crime, and Terrorism', the illegal economy in India has an overall score of 6.3 in India, higher than the average score of 5 of other 122 countries. In the organized crime segment, India has a lower score of 4.3 against the average 5.2.

**What is Illicit Trade?**

- Selling of goods in violation of national/international laws**, which is meant to **cover goods that are illegal** due to their characteristics, as well as those that contravene laws by how they are produced, distributed, marketed, labelled, identified, certified, or sold.
- Illicit trade can **occur both in black markets and in legitimate markets**.
- Illicit trade boomed with the capturing of 3.5 tonnes of gold, 18 crore cigarette sticks and 90 tonnes of heroin during the last financial year.

**Forms of Illicit Trade in India:**

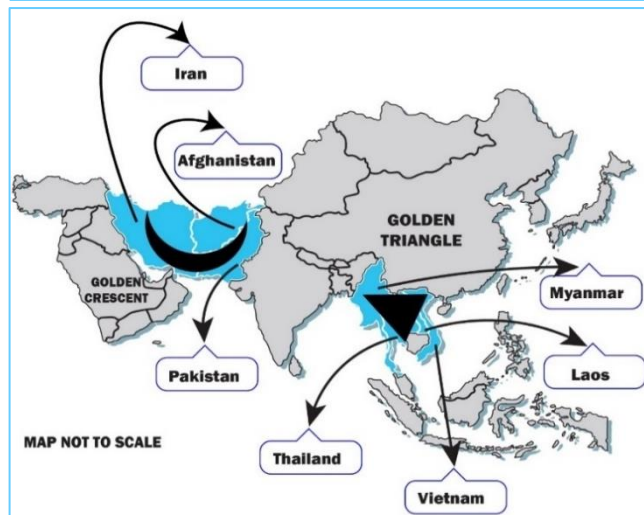
- Human Trafficking:** India is in a region where human trafficking continues to thrive. According to India's **National Crime Records Bureau (NCRB)**, over 6,500 human trafficking victims were identified in India during 2022.
- Wildlife Trafficking:** India is not only a major source, but also a transit and a destination country for **trafficked wildlife and wildlife products**. The illegal trade in endangered species and their bodyparts, such as ivory, rhino horns, and tiger bones, is a significant problem.

- Illegal Arms Trade:** The proliferation of **small arms and ammunition** is a major issue that threatens the security of India.
- Money Laundering:** India is at significant risk of money laundering and terrorist financing.
  - Based on UNDOC estimates, when the Indian economy surpassed the \$3 trillion mark in 2021, the quantum of money laundering in India can be estimated at \$159 billion which is around 5 percent of GDP.
- Counterfeit products:** These include fake or imitation versions of branded items such as **clothing, electronics, pharmaceuticals, and luxury goods**.
- Smuggled items:** These involve the illegal import or export of goods, typically to evade customs duties and taxes. **Gold, electronics, narcotics, and wildlife products** are commonly smuggled items.
- Illegal drug trade:** India is wedged between the world's two largest areas of illicit opium production, the **Golden Crescent and the Golden Triangle**. The production and distribution of drugs like heroin, cocaine, cannabis, and synthetic opioids remain major concerns.

The **Golden Triangle** and the **Golden Crescent** are two of the safest havens for illicit drug manufacturing and trading on the planet.

**Golden Crescent:** Iran, Pakistan and Afghanistan

**Golden Triangle:** Myanmar, Laos and Thailand

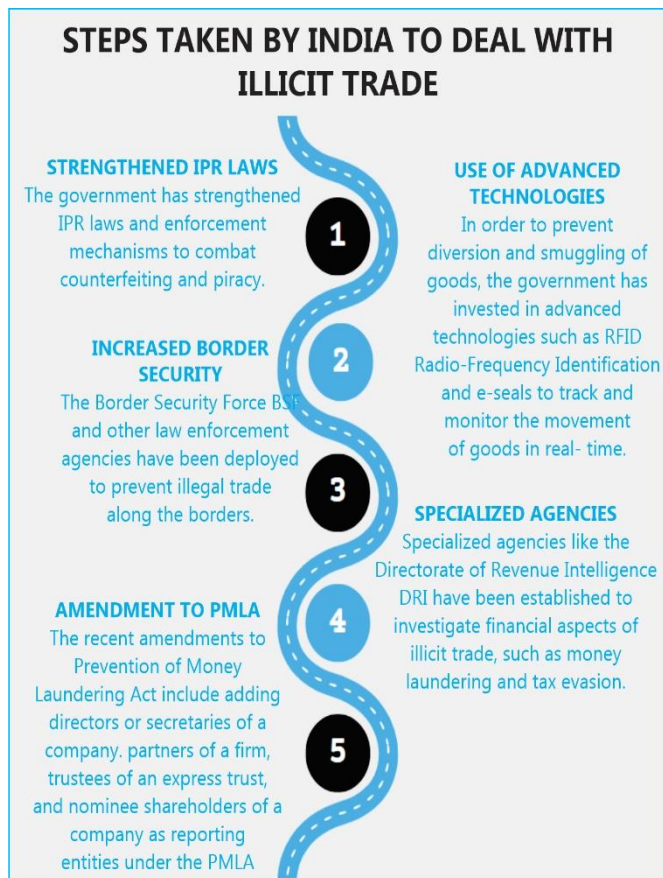


- Illegal alcohol:** On average 1,000 people die in India each year after consuming illegal liquor. **The unlicensed production and sale of illegal spurious alcohol can be a serious issue in many parts of India.**

**Causes of Illicit Trade in India:**

- Demand:** Demand for banned or restricted goods such as narcotics, **wildlife products, and counterfeit pharmaceuticals fuels illicit trade**. E.g.- Demand for traditional medicines and luxury items drives illegal trade in **tiger parts and rhino horns**.

- **High taxes:** Products like **tobacco, alcohol, gold, and luxury goods** are taxed highly in India leading to smuggling and illicit production.



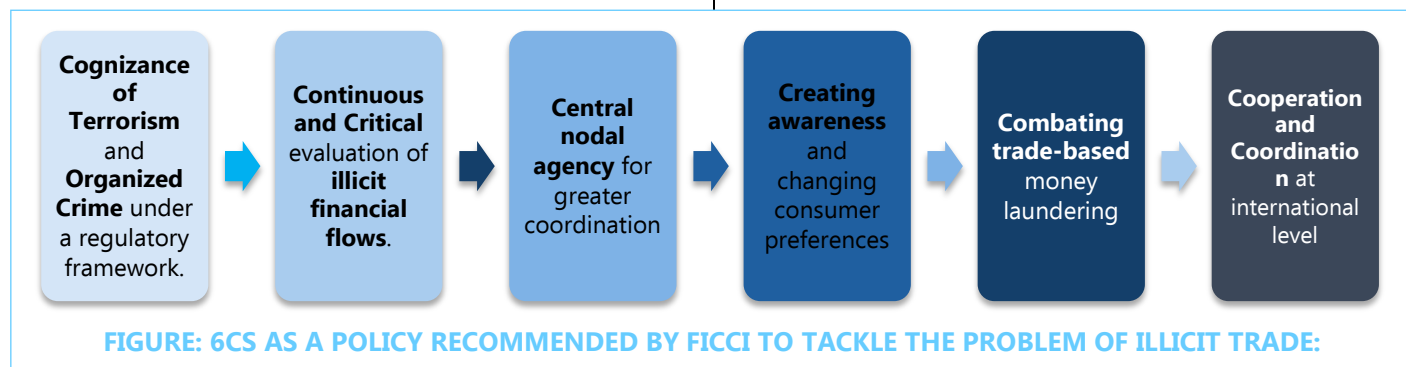
- **Widespread corruption:** Corruption among **government officials and law enforcement agencies** facilitates illicit trade.
- **Poverty:** Poverty and Unemployment can **drive people to engage in illegal activities** to make a living.
- **Weak law enforcement:** Particularly in **remote or border areas of our neighbours like Myanmar, Bangladesh, Bhutan, Nepal** as well and Pakistan makes it easier for illicit trade to flourish.
- **E-commerce platforms:** In recent years, **counterfeit trade conducted through E-commerce platforms** has played an increasingly important role in shaping illicit trade.

#### Impacts of illicit trade:

- **Economic Losses:** A substantial economic loss takes place to the economy due to illegal trade.
- **Revenue loss of government:** Smuggling of gold and electronics, like smartphones, leads to a loss of customs revenue.
- **Undermine legal businesses:** Counterfeit of illicit products such as alcohol and cigarettes can undermine the legitimate alcohol and tobacco industries.
- **Public health issue:** Counterfeit products such as pharmaceuticals and substandard medical devices pose severe public health risks.
- **Security threats:** Illicit trade can be linked to organized crime, terrorism financing, and other security threats. For example, the smuggling of arms and ammunition across India's borders can pose significant security challenges.
- **Ecological consequences:** Illicit trade in wildlife products, such as ivory and exotic animals, threatens biodiversity. E.g.- Deforestation, the growing of drug crops as monocultures, pollution of waters, illegal dumping sites of precursor chemicals, the high carbon footprint of in-house cultivation etc.
- **Social issues:** The availability of cheap, illicitly produced alcohol and drugs can contribute to alcoholism, drug abuse, and related health problems. It also damages the livelihoods of local communities dependent on tourism.
- **Impact on SDG goals:** From smuggling, counterfeiting, and tax evasion to the illegal sale or possession of goods, services, humans, and wildlife, illicit trade is compromising the attainment of the UN SDGs in significant ways.
- **Undermine the intellectual property rights:** Counterfeit goods undermine the intellectual property rights of legitimate creators and innovators.

#### Global measures to deal with illicit trade:

- In 2013, the **OECD** launched a **Task Force Countering on Illicit Trade**, which focuses on developing evidence-based research and coordinating



international expertise in quantifying and mapping illicit markets.

- Since 2013, the **World Customs Organization** has produced a yearly report on illicit trade which uses seizure data and case studies to study illicit trade flows.
- In February 2020, **UNCTAD held a Forum on illicit trade**. One of the main foci of the event was to evaluate how illicit trade impacts negatively the Sustainable Development Goals.

#### PEPPER IT WITH:

GDP, Organised Crime and Money Laundering, PLMA and FEMA, UNCTAD, OECD, FICCI

#### Way Forward:

While India has made commendable progress in enhancing its security protocols and reducing crime rates over recent years, more needs to be done to fully eradicate illicit trade activities that pose significant threats to national security and economic stability.

## WTO Dispute Settlement

### News Excerpt:

India and the US have mutually resolved all six trade disputes pending at the WTO. According to some analysts, an incident like this reduces the utility of the WTO.

### More details on the news:

- With this, the pending trade disputes have been resolved between the two nations. India also agreed to **remove retaliatory Customs duties** on 28 US products, such as almonds, walnuts, and apples.
- These duties, **imposed in 2019**, had come in response to the USA's move the previous year to impose a 25% import duty on steel products and 10% on aluminum products on the grounds of national security.

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## WTO DISPUTE SETTLEMENT PROCEDURE



### Significance of this dispute resolution:

- The decision to end the trade disputes is expected to have a positive impact on **India's exports to the US**.

- It showcases India's **new approach to trade issues which is solving the issues mutually**.

### Dispute settlement mechanism of WTO:

- According to WTO rules, a member country can file a case in the **Geneva-based multilateral body** if they feel that a particular **trade measure is against the norms**.
- **Bilateral consultation** is the first step to resolving a dispute. If both sides are not able to resolve the matter through consultation, either of them can approach the establishment of a **dispute settlement panel**.
- The panel's ruling or report can be challenged by WTO's appellate body.
- Further, India has highlighted its interest in the

### Generalized System of Preferences (GSP):

The GSP and the "most favoured nation" (MFN) status are two distinct tariff systems within the WTO. While MFN ensures equal treatment for all WTO members, **GSP allows for varying tariffs** based on factors like a **country's development status**, offering tariff reductions, particularly for **least developed nations**.

restoration of its status under the US **Generalized System of Preferences (GSP)** programme.

### Relevance of WTO:

- **Crucial platform for developing nations:** It remains a crucial platform for small and developing nations to engage in international trade negotiations.
  - **For example-** WTO offers special and differential treatment for developing countries.
- **Addressing global challenges:** The WTO can play a role in addressing global challenges, such as the COVID-19 pandemic and vaccine distribution.
  - **For example-** The **WTO-IMF Vaccine Trade Tracker** provided data on the trade and supply of COVID-19 vaccines.
- **Trade liberalization:** The WTO has not only enhanced the **value and quantity of trade** but has also helped in **eradicating trade and non-trade barriers**.
- **Multilateralism:** The WTO upholds the importance of multilateralism in the world where unilateral and bilateral trade agreements are becoming more common.
- **Discourage protectionist measures:** WTO discourages protectionist measures and maintaining open markets.

### Argument on the reduced utility of WTO in recent times:

- **Increasing bilaterally resolved cases and trade agreements:** The cases are increasingly getting resolved bilaterally, for example, recent resolved trade



disputes between India & US and many agreements such as RCEP are taking place without relying on WTO.

- The **appellate body is not functioning** because of differences among member countries to appoint its members. Several disputes are already pending with this body. The US has been blocking the appointment of the members.
- **Ineffective dispute settlement mechanism:** The organization is unable to effectively resolve trade disputes, undermining its credibility.
- **Changing nature of trade:** The rise of **digital trade, growth of e-commerce, and IPR issues** have posed challenges that the WTO was not originally designed to address adequately.
- **Non-trade concerns:** Many contemporary challenges, such as **climate change and labour rights**, are closely linked to trade which WTO struggles to incorporate into its framework.
- **Geopolitical tensions:** Geopolitical tensions, particularly between the **United States and China**, have strained the WTO's effectiveness in making meaningful progress on key issues.
- **Unresolved Farming subsidies:** Subsidies provided by rich countries **distort global markets** and depress prices, undermining the competitiveness and incomes of poor farmers in developing countries.
- **Trade barriers to developing nations:** The increase in **non-tariff barriers** such as **anti-dumping** measures allowed against developing countries.

#### PEPPER IT WITH:

WTO, Trade dispute Settlement Mechanism, Tariff and Non- Tariff barriers, types of duties

#### Way forward:

The WTO must adapt to address the changing power dynamics and challenges of global trade to maintain its relevance. With changing global trade patterns there is an urgent need to sort out legacy issues and the inclusion of global south interest would make WTO far more effective than it is today. Adapting to new trade dynamics, resolving disputes effectively and addressing emerging issues will be crucial for the organization to continue promoting a rules-based and fair global trading system.

### Dr. M.S. Swaminathan Contributions

#### News excerpt:

Renowned agricultural scientist M.S. Swaminathan, known as the father of India's Green Revolution, recently passed away at the age of 98.

Born in then Madras, now Tamil Nadu, in 1925, Swaminathan studied Zoology but shifted to Agriculture

after taking stock of India's wartime food shortages and the Bengal famine, both of which affected him deeply.

#### Contributions of MS Swaminathan:

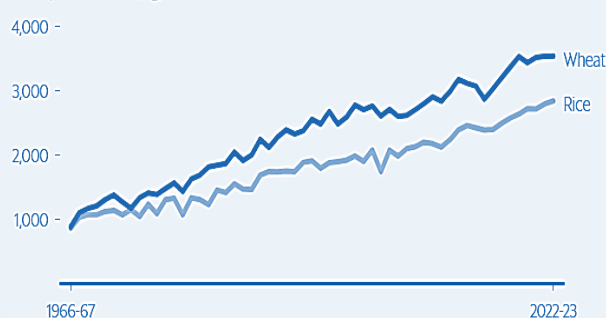
- **Green Revolution:** He was instrumental in spreading high-yielding varieties of rice and wheat, which transformed India from being dependent on food imports to being self-sufficient by the mid-1970s.
- **Advocacy:** He advocated policies to support the adoption of modern agricultural practices and influenced policy discussions at both the **national and international levels**.
- **Educating and training farmers:** He understood the importance of educating and training farmers in **modern agricultural techniques**.
  - For this, he established Agricultural Extension Programs to disseminate knowledge about improved farming practices and the use of HYV seeds.
- **Conserving agricultural biodiversity:** He advocated for conserving agricultural biodiversity through the **preservation of traditional crop varieties and the sustainable use of genetic resources** to ensure long-term food security.
- **Reducing hunger:** His work contributed significantly to **reducing hunger and improving food security in India**. The increased agricultural productivity resulting from the Green Revolution helped to feed a rapidly growing population.

#### Benefits of Green Revolution:

- Employment generation
- Doubling of Production
- Food Security
- High Yield Seeds availability leads to better food buffer
- Poverty Alleviation
- Economic development

#### India's rice and wheat yields have risen 3-4 times

Yield per hectare (kg)



#### Achievements of Dr. Swaminathan in numbers

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## Contribution as an Institution Builder:

- **Modernizing ICAR:** He worked on strengthening and modernizing the Indian Council of Agricultural Research (ICAR) and its affiliated institutions, making them more **research-oriented and responsive to the needs of farmers.**
- **National Commission on Farmers:** In November 2004, the Union government made Dr Swaminathan chairman of the National Commission on Farmers. Popularly known as the **Swaminathan Commission**, the panel submitted five reports in two years to the Centre. Its main recommendation was that the Minimum Support Price should be at least 50% more than the weighted average cost of production.
- **Research and Education in Agriculture:**
  - He played a role in and promoting the setting up of the **International Crop Research Institute for the Semi-Arid Tropics** in Hyderabad, India; the **International Board for Plant Genetic Resources (now known as Bioversity International)** in Italy and the **International Council for Research in Agro-Forestry** in Kenya.



- He helped to build and develop several institutions and provided research support in **China, Vietnam, Myanmar, Thailand, Sri Lanka, Pakistan, Iran, and Cambodia.**

Today, the world is talking about **millet (shree anna)** as a superfood. But Swaminathan had encouraged discourse around millets since the 1990s.

Dr. Swaminathan has left a **lasting legacy with his leadership and advocacy in agricultural research and farmer empowerment** which were pivotal in the **success of the Green Revolution** in India and its subsequent impact on global agriculture.

## PEPPER IT WITH

International Crop Research Institute for the Semi-Arid Tropics, ICAR, Green Revolution, Agriculture Extension Programs

## PRE-SHOTS

## New Angel Tax Norms

## News excerpt:

The Income Tax Department has notified new angel tax rules that comprise a mechanism to **evaluate the shares issued by unlisted startups to investors.**

## About Angel Tax:

- Angel tax (income tax at the rate of 30.6%) is levied when an unlisted company issue shares to an investor at a price **higher than its fair market value (FMV).**

**Fair market value (FMV)** is the price a product would sell for on the open market assuming that both buyer and seller are reasonably knowledgeable about the asset, are behaving in their own best interests, are free of undue pressure, and are given a reasonable time period for completing the transaction.

- Earlier, it was imposed only on investments made by a resident investor.
- The new rule prescribes **five methods** for non-resident investors: **comparable company multiple method; probability-weighted expected return method; option pricing method; milestone analysis method; and replacement cost method.**
- The notified Rule 11 UA provides for expansion of the valuation methodologies to include globally accepted methodology and provide a broad parity to resident and non-resident investors.
- **Budget attempts to address differences in tax treatment between two similar taxpayers.**
  - The Finance Bill, 2023, proposes to remove the condition of residency from the section, making it applicable even when shares are issued to non-resident investors.
  - It shall then be chargeable to income tax under the head **"Income from other sources"**.

## Income from other sources:

- It is a residuary head of income that includes any income which is not exempt from tax and needs to be included in the total income and not chargeable under the following heads: a) Salaries b) Income from house property c) Profits and gains from business or profession d) Capital gains.
- Certain incomes, such as winnings from lotteries, gifts, interest on enhanced compensation, etc. are always taxable under this head.

- Finance Act, 2023, brought in an amendment to bring the consideration received from non-residents for issue of shares by an unlisted company within the ambit of section 56(2)(viib) of the Income-tax Act, 1961(the Act), which provides that if such consideration for issue of shares exceeds the Fair Market Value(FMV) of the shares, it shall be chargeable to income-tax under the head 'Income from other sources'.

## World Co-Operative Economic Forum

### News Excerpt:

Leading cooperative sector experts have come together to form the World Cooperative Economic Forum (WCopEF) to give voice to over three million cooperatives spread across the globe. These cooperatives employ around 10% of the total workforce worldwide.

### About the WCopEF:

- WCopEF will bring together, for the first time, co-operators, social scientists, cooperative economists, policymakers and other stakeholders to brainstorm about the economy.
- It also intends to raise issues and concerns of the cooperative sector with governments and other stakeholders around the globe.
- The WCopEF will strive to promote cooperative thinking and cooperative movement.
- It will be based in New Delhi, India.

## General Crop Estimation Survey

### News excerpt:

Department of Agriculture and Farmers Welfare (DA&FW) has launched the mobile application and the web portal for the **General Crop Estimation Survey (GCES)** to

**Crop yield** is a standard measurement of the amount of agricultural production harvested—yield of a crop—per unit of land area.

revolutionize farming practices.

### About GCES:

- It covers around **68 crops** (52 food and 16 non-food) in 22 States and 4 Union Territories.
- The yield rate estimates are based on scientifically designed crop-cutting experiments conducted under the survey.

## GCES Portal and App:

### Key Features:

- Comprehensive Information-** The portal and the app provide a comprehensive repository of yield estimation including village-wise GCES plan and plot details where the crop-cutting experiments are conducted, post-harvesting crop weight and drriage weight of the crop.
- Geo-referencing-** It enables the primary worker to draw the boundary of the experimental plot and upload photos of the plot as well as of the crops through it. This feature will ensure transparency and accuracy of the data as well.

### Key Challenges Addressed:

- Delay in Reporting-**
  - Current manually done data collection, compilation and yield estimation cause delays in reporting by states.
  - In the new process, the field data will be collected using a GPS-enabled mobile application and stored in the server ensuring on-time reporting of crop statistics.
- Transparency-**
  - GPS-enabled devices provide precise latitude and longitude coordinates for data collection points.
  - This ensures that data is linked to specific geographic locations, removing ambiguity or manipulation of data collection.

## Card-On-File Tokenization (CoFT)

### News excerpt:

RBI to introduce card-on-file tokenisation at the bank level. Guidelines issued by Reserve Bank of India (RBI) on Card Tokenization; w.e.f 1st July 2022 - clear card number, CVV Expiry date and any other sensitive information related to cards cannot be stored by merchants for processing online transactions.

### About CoFT:

- CoFT or Tokenization** is the process of **replacing** a card's 16-digit number on the plastic card with a unique alternate card number, or 'Token' which shall be unique for a combination of card, token requestor and device.
- It provides ecosystem security and an enhanced checkout experience.

### Benefits:

- Enhance **convenience** for cardholders to get tokens created and linked to their existing accounts with various e-commerce applications.
- Safer** as the actual card details are not shared/stored with the merchants to perform the transaction.
- This allows secure online purchases without exposing sensitive details like card number, card verification value (CVV), etc.

## Circular Migration

### News excerpt:

In India, **internal migration (within a particular country or state) has almost always been circular**. According to the Periodic Labour Force Survey July 2020-June 2021, the all-India migration rate was 28.9%, with a 26.5 % migration rate in rural areas and 34.9% in urban areas.

### About Circular Migration:

- **Definition:** According to Philippe Fargues, migration can be defined as circular if it meets the following criteria
  - Temporary residence in the destination location,
  - Possibility of multiple entries into the **destination country**,
  - Freedom of movement between the **country of origin and the country of destination** during the period of residence,
  - Legal right to stay in the destination country,
  - Protection of migrants' rights,
    - Healthy demand for temporary labour in the destination country.

### Types of Migrants:

- **Long-term migrant**- A person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence.
  - From the perspective of the country of departure the person will be a long-term emigrant and from that of the country of arrival the person will be a long-term immigrant.
- **Short-term migrant**- a person who moves to a country other than that of his or her usual residence for a period of at least 3 months, but less than a year (12 months) except in cases where the movement to that country is for purposes of recreation, holiday, visits to friends or relatives, business, medical treatment or religious pilgrimage.
- **Return migrants**- persons returning to their country of citizenship after having been international migrants (whether short-term or long-term) in another country and who are intending to stay in their own country for at least one year.
- It occurs mostly **among low-income groups** who migrate to avail of seasonally available jobs in another country, city, place etc.
- According to the report of the United Nations Economic Commission for Europe Task Force, on measuring circular migration, one is called a circular migrant if you have **completed at least 'two loops' between two countries**.
- This can balance out the needs of development and individual economic advancement.

- Increased access to modern forms of transport and communication, social networks and the growth of multinational corporations have aided the advent of circular migration.

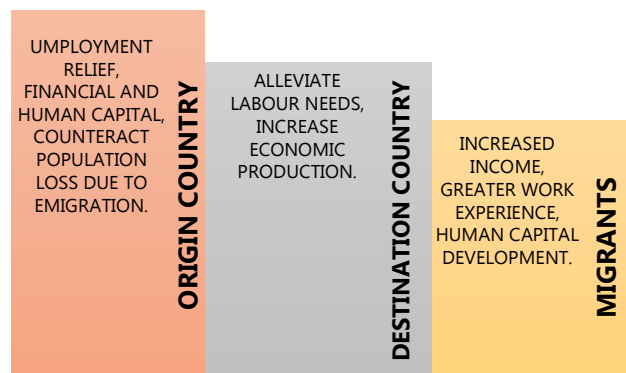


FIGURE 1 BENEFITS TO STAKEHOLDERS

## Project Mariana

### News excerpt:

Project Mariana completes cross-border settlement of **wholesale Central Bank Digital Currencies (CBDCs)**.

### About Project Mariana:

- It involved the **Bank for International Settlements (BIS) and the Central Banks of France, Singapore and Switzerland**.
- This project explores how the future of FX trading and settlement could look in a world where central banks have issued central bank digital currencies (CBDCs) and financial market infrastructures include elements of decentralised finance (DeFi).

Foreign exchange (FX) is the largest financial market in the world, trading about \$7.5 trillion a day.

- It pioneers the use of novel technology for interbank foreign exchange markets.
- It successfully demonstrated that it is feasible to exchange wholesale CBDC across borders using novel concepts such as automated market makers.

## Global Innovation Index-2023

### News excerpt:

India retains the **40<sup>th</sup> Position** in the Global Innovation Index (GII) 2023 among 132 countries.

### About the Index:

- The index is published annually by the **World Intellectual Property Organisation (WIPO)**.
- The GII is a reliable tool for governments across the world to assess the innovation-led social and economic changes in their respective countries.

- Since 2019, the GII has been recognized by the **United Nations General Assembly** as a benchmark for measuring innovation, in the context of the United Nations SDGs.
- Key findings-**
  - India leads the lower middle-income group, performing strongly in every innovation pillar except for Infrastructure.
  - India holds the top ranking within the Central and Southern Asia region for Human capital and research (48th), Business sophistication (57th) and Knowledge and technology outputs (22nd).
  - Strong indicators include ICT services exports (5th), Venture capital received (6th), Graduates in science and engineering (11th) and Global corporate R&D investors (13th).
  - The GII report states that India, Iran, Philippines, Turkiye, Vietnam and Indonesia are among the economies within the GII top 65 that climbed fastest in the ranking over the last decade.
- Switzerland – for a 13th year – ranks first in the GII 2023. Sweden is now 2nd and the United States on 3rd, followed by the United Kingdom (4th) and Singapore (5th).

#### About WIPO:

It is a United Nations specialized agency created in 1967 to promote intellectual property protection across the world by cooperating with countries as well as international organizations. It has currently 193 member countries.

#### Surety Bonds

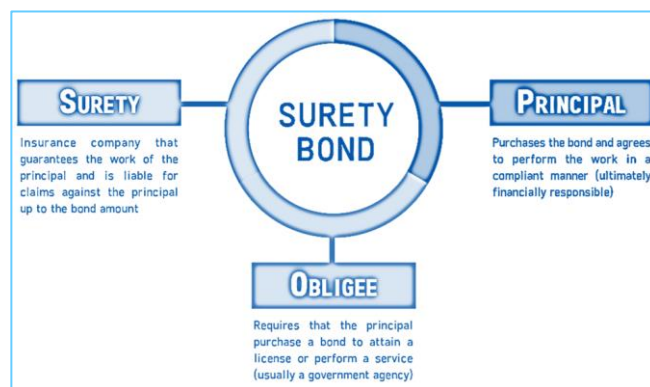
##### News excerpt:

Surety bonds are key to infrastructure growth.

##### About Surety Bond:

It is a **legally binding agreement between three parties:** obligee, principal, and surety.

- It guarantees that the principal will meet the commitments. indicated in a contract. If the principal fails to meet these obligations, the surety compensates the obligee, reducing their financial risk.
- The Insurance Regulatory and Development Authority of India (IRDAI) has issued guidelines** for surety bonds, which are designed to ensure that they are issued fairly and transparently.
- These bonds serve as a **vital risk management tool as well as a contract enforcement mechanism.**



#### World's First Green Bond Standards

##### News Excerpt:

The European Union is establishing the European green bond standard, the first in the world, to help prevent companies from presenting themselves as more environmentally friendly.

Europe is the world's biggest issuer of green bonds, accounting for more than half of global volume in 2021, though issuance is still only 3%-3.5% of the overall bond market.

##### About Green Bonds:

A green bond is a fixed-income instrument designed to support climate-related or environmental projects.

Green bonds are used to finance or re-finance investments, projects, expenditures or assets helping to address climate and environmental issues.

##### Why does the EU need a green bond standard?

- There is no uniform green bond standard and this is an obstacle to developing the market.
- The European green bond standard would allow better regulation of the green bond market, improving supervision, making it transparent, and preventing firms from presenting themselves as more environmentally friendly than they really are, a practice known as **greenwashing**.

##### Benefits:

- Enhance the **reputation and credibility** of the issuer by demonstrating their commitment to sustainability and transparency, resulting in positive media attention and stakeholder engagement.
- Attracts a wider and more diverse pool of investors looking for ESG criteria in their portfolios, **lowering the cost of capital and increasing the availability of funding.**
- Contribute to the achievement of climate and environmental goals by **supporting the development and deployment of renewable energy sources.**



### Demat Debit and Pledge Instruction

#### News excerpt:

SEBI has introduced a new document called **Demat Debit and Pledge Instruction (DDPI)** to replace Power of Attorney (PoA) to pledge and repurchasing stocks for margin purposes.

#### About DDPI:

- The DDPI serves the same purpose as PoA and mitigates the misuse of PoA.
- Clients can use DDPI to authorise the stock broker and depository participant to access their beneficiary ownership account (BOA) only to meet pay-in obligations for the settlement of trades executed by them.
- The use of DDPI will be limited **only for two purposes**:
  - For the transfer of securities held in the beneficial owner account of the client towards stock exchange-related deliveries or settlement obligations arising out of trades executed by such a client.
  - For pledging or re-pledging securities in favour of the trading member or clearing member to meet the margin requirements of the client.
- The DDPI needs to be executed only if the client provides his/her explicit consent, including internet-based trading.
- It has been done in a bid to curb the misuse of PoA given by clients to stock brokers.

### Pesticide Monocrotophos

#### News Excerpt:

**The Government of India has banned the use of a controversial pesticide Monocrotophos.** Along with monocrotophos, the three other insecticides that were banned are **Dicofol, Dinocap and Methomyl.**

#### Yavatmal pesticide poisoning:

20 farmers in Yavatmal district of Maharashtra died due to pesticide poisoning in 2017. Pesticide Monocrotophos, whose unapproved mixture was reported used in the cotton fields was blamed for the poisoning.

#### What is Monocrotophos?

Monocrotophos is a water-soluble organophosphate insecticide with high oral and moderate dermal toxicity. The recent directive provides a one-year transitional period for farmers to adopt alternatives.

**Central Insecticides Board and Registration Committee (CIBRC):** For the effective enforcement of the Insecticides Act, of 1968 the two bodies have been constituted at the Central level viz. Central Insecticides Board and Registration Committee. The enforcement of the Act was transferred to the Ministry of Agriculture in the year 1970 by the Ministry of Health and Family Planning.

### Heat-Tolerant Wheat Seeds

#### News excerpt:

The Centre has asked the states to promote **heat-tolerant wheat seeds** among farmers for the upcoming rabi season, in the background of a **5% decrease in monsoon** this year.

#### About the seeds:

- The wheat varieties **DBW187 and DBW222** have been found superior in terms of heat tolerance.

#### About Heat-Tolerance varieties:

- There are **800 climate-resistant varieties** available in the country.
- Breeding of heat-tolerant wheat varieties remains one of the most strategic approaches to cope with the risk of **unseasonal heat waves and to ensure food and nutritional security.**
- IARI scientists have bred wheat varieties with what is termed "**mild vernalisation requirement**" or the need for a certain minimum period of low winter temperatures for initiation of flowering.
- The early-sown IARI varieties not only have a longer window for grain development, but also for vegetative stage growth between germination and flowering.
- They can accumulate more biomass along with grain weight.

### GM Dhara Mustard Hybrid (DMH-11)

#### News excerpt:

India's first genetically modified mustard crop Dhara Mustard Hybrid (DMH-11) has failed to meet the minimum weight criteria required for the commercial release as seed.

**About Genetically Modified Crops:** Genetic modification of crops using the available and vast genetic diversity in conjunction with traditional farming has been well documented for increased productivity, contributing to **global food, feed, and fibre security.**

**Bt Cotton** was commercialised as the first GM crop in India more than 20 years ago and has been viewed globally as a great success story in terms of economic advantage to farmers and to the nation.

#### A Focus on Mustard:

- India is dependent on imports to meet its edible oil requirements and is the largest importer of edible oils in the world.
  - During 2020-21, India imported around 13.35 MT of edible oils costing around ₹ 80,000 crore.
  - Out of all the imported edible oils, the share of palm oil is about 56%, followed by soybean oil at 27%, and sunflower at 16%.

- Using genetic engineering, extensive research has been carried out at the Centre for Genetic Manipulation of Crop Plants (CGMCP), University of Delhi, to create a GM mustard hybrid, **DMH-11 (Dhara Mustard Hybrid-11)** with a higher yield.

#### About GEAC:

- The Genetic Engineering Appraisal Committee (GEAC) is the regulatory body under the Environment Ministry (MoEF&CC) for GM crops.
- GEAC is chaired by the Special /Additional Secretary of MoEF&CC and co-chaired by a representative from the Department of Biotechnology (DBT).

It is responsible for the assessment of proposals related to the release of genetically engineered organisms and products into the environment, including experimental field trials.

#### ICAR-CIRG Signs Mou To Transform India's Goat Value Chain

##### News Excerpt:

The Indian Council of Agricultural Research — Central Institute for Research on Goats (ICAR-CIRG) has recently signed an MOU Agreement with Heifer India. The **focus areas** of the agreement include increasing goat productivity, providing advanced training in breeding, and healthcare practices and fostering sustainability throughout the goat value chain.

##### About the Central Institute for Research on Goats (CIRG):

- It is a premier research institute of the Indian Council of Agricultural Research (ICAR), an autonomous organization under the Department of Agricultural Research and Education, Ministry of Agriculture, Government of India.
- The Institute was established in 1979 with the vision to develop the **poor men's cow - the goat** as a source of livelihood security, poverty alleviation and employment generation for the smallholders.
- Their mission is to enhance and sustain goat productivity with respect to meat, milk and fibre through research.

#### Borlaug Award

##### News Excerpt:

"Bihana Didi" wins **Borlaug Award** for introducing **drought-tolerant rice variety 'Sahbhagi Dhan'** in Odisha.

##### About the news:

- Indian agriculture scientist **Swati Nayak** became the **third Indian agriculture scientist** to win the prestigious Norman E Borlaug Award for 2023.
- She is fondly referred to as "**Bihana Didi**," meaning "**Seed Lady**".
- Sahbhagi Dhan is a drought-tolerant rice variety, suitable for hilly uplands and '**BINA Dhan-11**', is a flood-tolerant variety containing a submergence-tolerant Sub1 gene identified from an indigenous land race of Odisha.
- The other two Indian recipients have been-
  - Govindaraj (2022)- recognized for his outstanding leadership in mainstreaming **biofortified crops, particularly pearl millet**, in India and Africa.
  - Mukherji (2012)- chosen for her **research on groundwater resources in agriculture** which led to major policy changes benefiting thousands of farmers in West Bengal.

##### About the Norman Borlaug Award:

- The award, instituted by the **World Food Prize Foundation**, is named in honour of Nobel Laureate and Green Revolution's chief architect Dr Norman E Borlaug. It is endowed by the **Rockefeller Foundation**.
- It recognizes exceptional, science-based achievement in international agriculture and food production by an individual under the age of 40.
- The **Nobel Peace Prize 1970** was awarded to Norman E. Borlaug "for having given a well-founded hope"- the green revolution.



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## INTERNATIONAL RELATIONS

### Israel – Palestine Conflict

#### News Excerpt:

The Palestinian Islamist movement Hamas recently launched its most significant assault on Israel, firing a barrage of rockets from Gaza and sending fighters across the border under **Operation 'Al-Aqsa Flood'**.

#### Historical Background:

- The Israeli-Palestinian conflict has its roots in the late 19th century when Jews fleeing anti-Semitism in Russia and central Europe began emigrating to Palestine.
- In 1917, during World War I, the British captured Palestine from the Ottomans and, in the **Balfour Declaration** of November 2, promised the Jews a "national home" there.



#### • Palestine split:

- Palestine was partitioned into Jewish and Arab states under United Nations Resolution 181, approved in November 1947. Jerusalem is put under international control.
- In the split, the West Bank, including east Jerusalem, went to Jordan and the Gaza Strip to Egypt.
- Israel was finally created on May 14, 1948, provoking an eight-month war with Arab states.
- The Palestine Liberation Organization (PLO) was created in 1964.

#### • Occupation and war:

- In the Six-Day War in June 1967, Israel defeated Egypt, Jordan and Syria and occupied the Gaza Strip, East Jerusalem, and the Golan Heights from the countries respectively.
- Arab states attacked Israel on October 6, 1973, the **Jewish holy day of Yom Kippur**. Israel repelled the attack.
- Israel invaded civil war-racked Lebanon on June 6, 1982, to attack Palestinian militants after initially sending in its forces in 1978.
- The **first intifada, or Palestinian uprising** against Israeli rule, raged from 1987 to 1993.

Palestinian Loss of Land 1947 to Present



#### • Peace process:

- In 1993, Israel and the PLO signed a declaration on principles for Palestinian autonomy after six months of secret negotiations in Oslo, launching a peace process.
- PLO leader Yasser Arafat** returned to Gaza in July 1994 to create the Palestinian Authority. Self-rule was established for the first time in the Gaza Strip and the West Bank town of Jericho.
- In September 2000, right-wing Israeli opposition leader and future prime minister Ariel Sharon visited the **Al-Aqsa mosque** compound in east Jerusalem, a site holy to Muslims and Jews, who referred to it as the **Temple Mount**, sparking the first clashes of the **second intifada**.
- Responding to a wave of suicide bombings, Israel 2002 invaded the West Bank in its largest operation since the 1967 war.
- Moderate Mahmud Abbas** took over the leadership of the Palestinian Authority in January 2005 after the death of Arafat.
- The last Israeli forces left Gaza after a 38-year occupation in September 2005.

### Harakat al-Muqawamah al-Islamiyyah (the Islamic Resistance Movement) - in short, Hamas:

- The roots of Hamas go back to the Muslim Brotherhood. The Brotherhood, established by Egyptian Islamist Hasan al-Banna in 1928, made a presence in British-ruled Palestine in the 1930s.
- Hamas was established after the **first intifada** broke out in **1987**. They are anti-semitic and do not recognize Israel. Sheikh Ahmed Yassin is a Palestinian cleric who became an **activist in local branches of the Muslim Brotherhood after dedicating his early life to Islamic scholarship in Cairo**.
- According to the charter issued by Hamas in 1987, Palestine is "an Islamic Waqf land consecrated for Moslem generations until Judgement Day"; "there is no solution to the Palestine problem except jihad" and all peace initiatives are a "waste of time and acts of absurdity".
- When the PLO moved to join peace efforts seeking a solution to the Palestinian issue, Hamas hardened its position. It opposed the **Oslo Agreement**, which allowed the formation of the Palestinian Authority with limited powers within the occupied territories. When the PLO recognized Israel, Hamas rejected the two-state solution.
- **In the 2006 legislative elections in the Palestinian territory -**
  - Hamas won 74 out of the 132 seats, while the Fatah party, the PLO's backbone, got only 45 seats.
  - In its election manifesto, Hamas showed signs of moderation for the first time. It dropped the call for the destruction of Israel, which was mentioned in the 1988 charter.
  - Hamas formed the government but faced opposition from Israel and most international powers. Like Israel, the U.S. and several European countries have designated Hamas as a terrorist organization.
  - As tensions rose between Fatah and Hamas in the West Bank, Palestinian Authority President Mahmoud Abbas dissolved the Hamas government and declared a state of emergency.
  - This led to violent clashes between Fatah and Hamas. Fatah ousted Hamas from the West Bank, and Hamas ousted the former from Gaza in 2007. Since then, Hamas has been the government in Gaza.
  - Following Hamas's capture of Gaza, Israel imposed a blockade on the strip, practically turning the territory into an open prison.

### India's stance on the Israel – Palestine conflict:

- India's policy has gone from being unequivocally pro-Palestine for the first four decades to a policy of de-hyphenation.

### • Before 1990:

- In 1948, India was the only non-Arab-state among 13 countries that **voted against the UN partition plan of Palestine in the General Assembly**, which led to the creation of Israel.
- The relationship with Palestine was almost an article of faith in Indian foreign policy for over four decades. In the 1967 and 1973 wars, India called out Israel as the aggressor.
- In 1975, India became the first non-Arab country to recognize the PLO as the sole representative of the Palestinian people. It invited it to open an office in Delhi, which was accorded diplomatic status five years later.
- In 1988, when the PLO declared an independent state of Palestine with its capital in East Jerusalem, India granted recognition immediately.
- India opened a Representative Office in Gaza, which later moved to Ramallah as the Palestinian movement split between Hamas (which gained control of Gaza) and the PLO.

### • From 1992 to 2014:

- The balancing began with India's decision to normalize ties with Israel in 1992, which came against the backdrop of the break-up of the Soviet Union and massive shifts in the geopolitics of West Asia on account of the first Gulf War in 1990. That year, the Palestinian Liberation Organisation (PLO) lost much of its clout in the Arab world by siding with Iraq and Saddam Hussein in the occupation of Kuwait.
- For two-and-a-half decades from 1992, the India-Israel relationship continued to grow, primarily through defence deals and in sectors such as science and technology and agriculture. But India only acknowledged the relationship partially.
- India voted in favour of the UN General Assembly resolution in October 2003 against Israel's construction of a separation wall. It voted for Palestine to become a full member of UNESCO in 2011, and, a year later, co-sponsored the UN General Assembly resolution that enabled Palestine to become a "non-member" observer state at the UN without voting rights.

### • After 2014:

- The Indian government decided to take full ownership of the relationship with Israel. The first indication of the new phase came with an abstention by India at the UN Human Rights Council on a resolution welcoming a report by the HRC High Commissioner. The report said it had evidence of alleged war crimes committed by Israeli forces and Hamas during the 2014 airstrikes against Gaza that killed over 2000.



- In 2016, India abstained again on a UNHRC resolution against Israel. But the big change was the status of the historic city that both Israel and Palestine claim.
- PM Narendra Modi visited Israel in 2017 and became the **first sitting Indian Prime Minister** to visit the country in the last 70 years.
  - India and Israel then signed seven agreements in key areas like space, water management, energy and agriculture.

### Way forward:

- If Israel and other regional and international players want lasting peace and stability, their focus must turn to finding a solution to the question of Palestine. The military operations without addressing the core issue would only be cosmetic interventions. Hamas's indiscriminate violence against Israeli civilians is disgusting and will not help the Palestinian cause. On the contrary, it will put more Palestinian lives at risk.

#### PEPPER IT WITH:

Middle-East, India-West Asia Relations, Look and Act West Policy, De-Hyphenation Policy

## India-Canada Diplomatic Tussle

### News Excerpt:

Prime Minister Justin Trudeau has recently accused India of violating Canada's sovereignty. He alleged that agents of the Indian government were involved in the killing of Hardeep Singh Nijjar, a Canadian citizen. He also asked one senior Indian Diplomat to leave his country.

- Tensions between India and Canada over the Khalistan issue have always run high and are the primary reason why no Indian Prime Minister made a bilateral visit to Canada between 1973 and 2015.
- From the 1970s onwards, the rise of the Khalistani separatist movement in Punjab was accompanied by an increase in support for the movement from a part of the Sikh diaspora in Canada, the U.S., and the U.K.

### India-Canada relationship:

- **Historical:**
  - India established diplomatic relations with Canada in 1947 based on strong democratic values, pluralism, culture, and people-to-people contact.
  - The bilateral relations witnessed a positive push during Nehru's visit in 1949 and Canada's

assistance in nuclear technology, i.e., CIRUS (Canadian-Indian Reactor, US) in 1954.

#### • Economy:

- India imported merchandise worth approximately U.S.\$4.05 billion in FY 2022-23 from Canada and exported about U.S.\$4.11 billion worth of goods — indicating a broadly balanced trade.
- India's **primary import items** include coal, coke and briquettes, fertilizers, iron and steel, and lentils.
- India's **major export** items are pharmaceutical products, iron and steel products, organic chemicals, and marine products, along with apparel and textiles of varied forms and variants.

#### • Investment:

- As per the National Investment Promotion and Facilitation Agency's Invest India, Canada is India's 18th largest foreign investor.
- Canadian Pension Fund (CPP) has invested in the Indian markets to about \$15 billion in areas such as real estate, renewables, and the financial sector.
- More than 600 Canadian companies, including Bombardier and SNC Lavalin, have a strong presence in India. In comparison, more than 30 Indian companies, such as infotech majors TCS, Infosys, and Wipro, have invested billions of dollars in Canada, creating thousands of jobs.

#### • Education:

- Canada has about 1.08 lakh students from India at present. This accounts for more than 37% of its overall international student pool.
- Under the **Global Initiative of Academic Works (GIAN) Programme**, around 69 Canadian faculty members visited India for teaching assignments in Indian institutions and worked on 19 projects under **Scheme for promoting Academic and Research Collaboration (SPARC)** to improve research ecosystems in India's higher education institutions.
- A perfect example of academic exchange is the greatest contribution of Michael Becher, a Professor of Political Science and International Relations, with the creation of the **Shastri Indo-Canadian Institute in 1966**, with joint headquarters in Calgary and New Delhi. The Institute was named after India's former Prime Minister Lal Bahadur Shastri following his untimely death in 1966.

#### • Science and Technology:

- Both countries are working continuously to develop a **low-cost solution to support healthy communities**. One such example is the **India-**

**Canada Centre for Innovative Multidisciplinary Partnership to Accelerate Community Transformation and Sustainability (IC-IMPACTS)** and **Mitacs**, which work in integrated water management, safe and sustainable infrastructure, and public health sectors.

- Under the “**Mission Innovation**” programme, India has collaborated with Canada on **Sustainable Biofuels (IC4)**.
- **Tourism:**
  - To further promote tourism and economic activities, Air India has started its **direct flight Amritsar-Delhi-Toronto** and Air Canada operates a non-stop **direct flight between Mumbai-Toronto, Delhi-Toronto, and Delhi-Vancouver**.
- **Indian diaspora in Canada:**
  - People who identified Punjabi as their ethnic or cultural origin during the 2021 Canadian census formed the largest share of Indians in Canada, followed by Tamilians, Gujaratis, and Bengalis.
  - More importantly, 30% of Punjabis in Canada belong to the second or third generation (persons not born outside Canada).
  - In the field of politics, in the present House of Commons, out of a total of 338, 22 Members of Parliament are of Indian origin.

#### Speed bumps in bilateral relations between India – Canada:

- **The first time**, the ties saw some grey clouds in 1948 when Canada supported a plebiscite in the Indian state of Kashmir.
- In 1974, India carried out its first nuclear test, and Canadians believed that these tests were carried out with the help of the CIRUS reactor, which was against their ideology of peaceful use of nuclear energy.
- During the 1980s, when Punjab was going through a militancy phase, India expressed its reservations regarding the activities of Khalistan in Canada.
- In 1998, during India's Pokhran Nuclear test. Western nations put economic sanctions on India, including Canada.
- Air India Flight 182 (Kanishka Plane) passenger jet explosion, which killed all 329 passengers on board by the Khalistani terrorists, further deteriorated India-Canada relations.
- Canadian Prime Minister Trudeau's remarks on the Indian farmers' protest in December 2020 further deteriorated the bilateral ties.

#### Opportunities for Canada and India to push their economies upwards:

- **First**, Canada can assist India in energy security, renewable energy, clean technology, bio-energy, solar, wind and sewerage treatment technology/plants which can benefit India in its Intended Nationally Determined Contribution (INDC) targets and Swachh Bharat Mission.
- **Second**, trade complementarities between India and Canada can further strengthen our commercial bond through agricultural products, Chemicals, Automobiles, Energy, Electronics, Textiles, Minerals, and Information Technology cooperation.
- **Third**, in a recent ministerial meeting, Canada agreed to examine the request for Conformity Verification Body (CVB) status to APEDA (Agricultural and Processed Food Products Export Development Authority) for hassle-free export of Indian organic products.
- **Fourth**, in recent times, we have witnessed a significant movement of professionals, skilled workers, students, and business travellers between the two countries, which can immensely contribute to enhancing the bilateral economic partnership of both countries.
- **Fifth**, the public health sector is another domain where India can act and support Canada as a reliable partner in supplying generic medicines and affordable pharmaceutical products.
- **Sixth**, even after the economic crash due to the Covid-19 pandemic, our bilateral economic trade in 2021 in goods was around US\$ 6.29 billion with a positive growth rate of 12 percent compared to 2020.
- **Finally**, Canada and India have taken various initiatives to make our business environment more investor-friendly and thus, in the last six years, there has been an increase from US\$ 5 billion to more than US\$ 55 billion in portfolio investments from Canada to India.

#### Way forward:

India and Canada can be great partners for future cooperation and growth. India is a budding economic powerhouse in Asia with immense opportunities in the coming times. The bilateral trade with the joint efforts of both Indian and Canadian governments has reached around C\$ 8 billion, which is a win-win situation for both democratic nations. With the alignment of strategic interests, both countries can benefit greatly in the future.

#### PEPPER IT WITH:

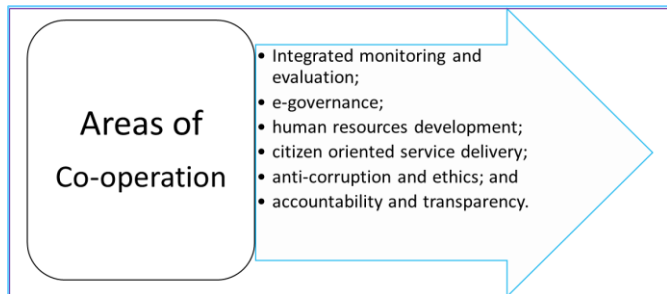
Indian Diaspora, Brain Drain, Khalistan Issue, Commonalities between India and Canada Democracies

## India, Brazil, South Africa (IBSA) and Global South

### News Excerpt:

The 11th IBSA Trilateral Ministerial Commission Meeting was held on 22 September 2023, in New York. This trilateral alliance brings together India, Brazil, and South Africa—three diverse and democratic nations with shared objectives of promoting South-South

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cooperation.

**About IBSA:** The grouping was formalized and named the IBSA Dialogue Forum when the three countries' Foreign Ministers met in Brasilia on 6 June 2003 and issued the Brasilia Declaration.

- Brazil assumed on March 2, 2023, the rotating presidency of the India, Brazil, South Africa Dialogue Forum - IBSA.
- However, as the grouping completes 20 years in 2023 there have been only 5 summits held till date.
- **Idea Behind IBSA:** These three developing nations shared a common belief that harnessing their collective potential could promote mutual development and champion a just and fair international order.

### Summits:

- Five IBSA Leadership Summits have been held so far.
  - The 5th IBSA Summit was held in Pretoria on 18 October 2011.
  - The inaugural IBSA Summit in Brasilia in 2006 marked a pivotal moment, followed by subsequent summits in South Africa, New Delhi, and Brazil.

### History of Global South:

- The idea of the Global South was first proposed by Carl Ogelsby, an American writer, in the 70s, which comprises countries primarily located in Asia, Africa, and South America, among others.
- Before that, the terminology used was "First World," "Second World," and "Third World" in the Cold War era.
  - "First World" referred to the Western capitalist democracies,

- "Second World" to the communist states, and
- "Third World" to the less developed, non-aligned nations in Asia, Africa, and Latin America.
- However, the main emphasis was based on the division of the economy and economically developed nations, and the same was reflected in the term "Global South".
- The term "Global South" is geographical, reflecting that many of the world's least developed and economically disadvantaged countries are located in the Southern Hemisphere and later it pushed for a new economic order.
- The Brandt Report, Led by former West German Chancellor Willy Brandt, published in 1980, was instrumental in popularizing the "Global South."
  - It emphasized the distinction between countries with higher GDP per capita (primarily located in the Northern Hemisphere) and those with lower GDP per capita (predominantly in the Southern Hemisphere).
  - It highlighted the economic disparities between these regions and proposed measures for addressing them.

### How India and IBSA are fighting the cause of Global South:

- A central objective of IBSA is to **reform key international institutions** like the United Nations Security Council (UNSC) and the International Monetary Fund (IMF). These reforms aim to ensure a more significant role for developing countries and strengthen the Global South's voices on the global stage.
- Moreover, IBSA actively promotes economic ties among its member states.
- The trilateral partnership seeks to deepen economic integration through initiatives such as the MERCOSUR-SACU-India Trilateral Free Trade Agreement (T-FTA).
- IBSA's impact also extends to regional security and cooperation. The forum has consistently supported the New Partnership for African Development (NEPAD) as a pivotal African Union socio-economic program, reinforcing their commitment to advancing regional development.

Furthermore, the IBSA Fellowship Programme, launched to facilitate the exchange of scholars for joint research, has contributed to policy inputs that advance the IBSA process.

### Challenges:

- All three forum countries face severe challenges and competition from other countries of their respective regions for the leadership role. For instance, India faces challenges from Pakistan, Indonesia and Malaysia; South Africa from Nigeria and Egypt; and Brazil from Argentina and Mexico.

- The forum can grow effectively only if it functions without any hindrances. Several internal issues haunt the three member countries – corruption, increasing crime rates, political violence, economic inequality, etc., which need to be addressed properly by the individual countries for the forum to be successful.
- In addition to the modesty of its joint initiatives, IBSA faces a more fundamental problem of legitimacy. While its members hold themselves out as regional democratic leaders with some capacity to speak on behalf of the Global South, their regional roles are, in fact highly contested.
- Some other challenges are-
  - Producing a Coordinated Plan of Action and a Greater Strategic Focus
  - Achieving a Comprehensive Economic Partnership
    - § Trade Facilitation
    - § Agriculture Cooperation
    - § Other Potential Areas for Future Cooperation: Energy, Manufacturing and Services, R&D, Commodities
  - Expanding the Development Fund
  - Integrating Social Development Strategies

### Way forward:

- The grouping should move in due course from being a forum for dialogue to become a vehicle for concrete socio-economic cooperation so that its benefits are shared by the common man as well.
- IBSA should focus on a comprehensive economic and investment agreement free of trade barriers.
- Globalization should be factored into the IBSA equation - all three countries have global companies, and it might be prudent to think of IBSA as a global company and to build cultural diversity within it.

### PEPPER IT WITH:

BRICS, South-South Cooperation, Voice of Global South, UNSC

## Teesta River Water Treaty

### News Excerpt:

The **Glacial Lake Outburst Flood (GLOF)** from **Lhonak Lake** in North Sikkim washed away the 60-meter-high concrete dam of the 1200MW **Teesta-III hydel project** near Chungthang village.

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### India-Bangladesh Teesta Water Treaty:

The sharing of water of River Teesta has been a subject of contention between the two nations for the last 35 years. Several dialogues and bilateral agreements have taken place but have made limited progress in resolving the issue.

#### About Teesta River:

- It is a **tributary of Brahmaputra** (known as Jamuna in Bangladesh)
- **Origin:** Glacier Teesta Khangtse (it originates from **Tso Lhamo Lake at the Sikkim Himalayas**)
- **It flows through the States of** Sikkim, and West Bengal and enters Bangladesh.
- **Drains into:** Bay of Bengal
- **Tributaries: Right bank:** Zemu chhu, Rangyong Chhu, Rangit River
- **Left Bank:** Lachung Chhu, Ranikhola, Rangpo Chhu, Chakkung Chhu, Dik Chhu.
- **Length:** It is ~ 414 km long- (~ 150km lie in Sikkim, 123Km lie in West Bengal and 140Km in Bangladesh)
- **India's Catchment Area:** 12,540 square km.
- **Bangladesh's Catchment Area:** 2,750 square Km. It supports roughly 10 million people and 14% of crop production.

### Glacial Lake Outburst Floods (GLOF):

- Glacial lakes are large bodies of water in front of, on top of, or beneath a melting glacier.
- As they grow larger, they become more dangerous because glacial lakes are mostly dammed by unstable ice or sediment composed of loose rock and debris.
- In case the boundary around them breaks, huge amounts of water rush down the side of the mountains, which could cause flooding in the downstream areas.
- **Causes:** GLOF can be triggered by several reasons, including **earthquakes, landslides, extremely heavy rains, and ice avalanches.**

### Historical Background

**1947: Boundary Commission (BC)** was set up by **Sir Cyril Radcliff**. The commission allotted a major part of Teesta's catchment area to India.

**1971:** No significant dialogues took place before the formation of Bangladesh

**1972: India- Bangladesh Joint River Commission** was set up to discuss sharing the Teesta river water.



**1983:** An ad hoc agreement was concluded between India and Bangladesh on the amount of water to be shared.

**2011:** Bangladesh expressed disapproval over the old numbers and demanded a fair and equitable share on the basis of the **Ganga Water Treaty of 1996**. The negotiations went on till 2011. A new deal with renewed allocation was agreed upon that would last for the next 15 years. But, it was opposed by West Bengal. Therefore, the deal remained unsigned.

## Importance of Teesta to India and Bangladesh

### Importance for Bangladesh:

- According to the 2013 assessment by the **Asian Foundation**, Bangladesh's flood plains cover **14%** of the country's total cultivated area and support the livelihood of **73%** of the country's population.
- Bangladesh has over 230 rivers, out of which 57 are Transboundary and **54 flow through India**, making Bangladesh heavily dependent on India's water supply.
- According to the Food and Agriculture Organization** of the United Nations (FAO), the ratio of Bangladesh's external dependency for water is over 90 percent.
- Rangpur Region**, known as the "**Rice Bowl of Bangladesh**", is a major paddy-growing region that requires a large amount of water for its cultivation.

### Importance for India (West Bengal):

- Teesta, the second largest river in West Bengal, is its lifeline. It is an important source for agriculture and hydropower generation in the region. It supports the water demands of over 6 districts. It supports the livelihood of thousands of farmers and fishermen and has a presence of rich flora and fauna.

### Current Status of the dispute:

As an upper riparian state, India has the advantage of releasing water as per its needs. Therefore, it releases water during surplus. There is a drastic reduction of water in the dry season, which remains a contention between the two nations.

Countries Involved:	Allocation of Water as per the 1983 Agreement	Allocation of water as per the 2011 Agreement
India	39%	42.5%
Bangladesh	36%	37.5%
Unallocated	25%	20 %

### India's Stand

- West Bengal claims that due to climate change the water volume of Teesta has receded below 100 cumec which is highly inadequate for the irrigation and the water requirements for the people of Bengal.

- The agreement will dry up the Northern part of Bengal, which will hurt the farmers and the state's economy as West Bengal is a largely agrarian state.
- West Bengal's seeks to irrigate 9,22,000 hectares replacing the earlier 58,000 hectares. This will be hampered if any water is shared from Teesta.
- Alternate solution:** West Bengal proposed sharing the water of **River Torso** which is also closer to Bangladesh.

### Bangladesh's Stand:

- Teesta River has a catchment area of **~2700 square km** and supports the livelihood of **~10 million people**.
- Therefore, Bangladesh has demanded a **50-50% basis** of water sharing. Bangladesh, being a lower riparian state, has argued for a just and equitable framework.

### Associated Concerns on The Teesta Water Sharing: Political:

**Increasing Closeness of Bangladesh and China:** Bangladesh and China entered into a **\$1 billion project** to restore and manage river Teesta. This project is designed to effectively manage the water crisis during the dry months.

- Irritant in the bilateral relation:** The opposing stands by both nations have led to a deadlock in resolving the issue, which may hamper achieving India's objective of **Neighborhood First Policy, Act East Policy**.

### Economic:

- Impact on Agriculture and livelihood:** Drastic water reduction during the lean seasons and water diversion by **Gajoldoba Barrage** threaten food security and rural livelihood.
- Cultivation of water-intensive crops:** Paddy cultivation or Boro has significantly increased on both sides of North Bengal and Northwest Bangladesh. It is highly water-intensive and demands more water.

### Environmental:

- Floods:** Severe fluctuations in river flow cause massive floods at unexpected times, destroying life and property. For instance, Opening the vents of the Gajolbonda barrage.
- Destabilization of Bangladesh's rivers:** Bangladesh's rivers are becoming shallower and wider due to the drastic reduction of water in the dry season. Excessively high volumes in the monsoon season are leading to destabilization of the rivers.

### Disaster Related:

- Flash floods:** Occurred in **north Sikkim** after the **South Lhonak Lake** burst due to continuous rains. The

### PEPPER IT WITH:

Flash Floods, Climate Change, Himalayan River System, Transboundary Water Agreements

high storage volume in the **Teesta-III dam's reservoir** and the failure to open its spillways are two key factors to be the probable triggers that exacerbated the **GLOF's impact**.

- **Seismically active zone:** it lies in the **seismically active zone V**, Hydroelectricity projects across the river makes it environmentally hazardous.

#### International Rules on equitable sharing of water: Helsinki Water Rules, 1966

- **Article IV** states the issue of equitable utilization of the waters of an international drainage basin.
- "Each Basin State in its territory has a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin".
- The Helsinki Rules were limited to international drainage basins and connected groundwater sources.

#### Berlin Water Rules, 2004

- Superseded the Helsinki Rules
- Importance to appropriate management of 'all freshwater sources' within the nations; climate-related issues; minimization of environmental harm.
- Aimed to meet vital human needs, and the individual's right of access to adequate safe drinking water, among others.

#### Way forward:

With climate change and changing variables, both nations must ensure scientific assessment based on data and seasonal precipitation, to determine a fair and equitable water-sharing formula. Moreover, all the stakeholders must be involved to arrive at an acceptable domestic solution and cross-border peace.

## India-Tanzania relation

#### News Excerpt:

Recently, India and Tanzania signed **six MoUs** in various fields, including **digital domain, culture and sports**, and agreed on a **five-year roadmap** to boost and expand defence cooperation.

#### Key points:

The two countries inked **six agreements** providing for cooperation in the **digital domain, culture, sports, maritime industries and white shipping information sharing**.

- Both sides were also working on an agreement to increase **trade in local currencies**.

- Both countries have agreed on a five-year roadmap in the field of defence. It will add **new dimensions to cooperation in areas like military training, the maritime sphere and defence industries**.
- India and Tanzania were "**unanimous**" that **terrorism is the "most serious security threat to humanity"**. "They have decided to increase cooperation in the field of counter-terrorism."



**Education & Health Cooperation**

- IIT Madras Zanzibar - 1st Offshore campus of IIT established in Tanzania
- India gifted 10 ambulances to Tanzania in 2023
- Essential medicines gifted by India to Tanzania in 2018, 2020 and 2021
- India gifted over 1,30,000 NCERT Science & Mathematics text books to Tanzanian Secondary Schools in 2017
- Radiation therapy machine 'Bhabhatron II' for cancer patients setup by India in Mwanza, Tanzania in 2016
- 2 ICT Centres with Param Supercomputers setup in Dar es Salaam & Arusha under India's assistance

#### Relations between both countries

- India and Tanzania have a strong, time-tested relationship based on solidarity and camaraderie that comes from a shared struggle for independence during colonial times.
- From the beginning of India's independence, both countries always had a good understanding. Today that is reflected in a very robust economic engagement. **Both have a trade of almost six and a half billion dollars annually.**

#### Indian Diaspora in Tanzania

- Tanzania is home to about 40,000 people of Indian origin which are concentrated in the major urban centres of Dar es Salaam, Arusha, Mwanza, Dodoma, Morogoro, Zanzibar, and Mbeya.
- The vast majority are from Gujarat, mainly from Kutch and Kathiawad regions whose ancestors came to this region [Zanzibar and Tanganyika] in several phases starting from early 19th century as merchants, sailors and workers.
- The Indian origin community is active in the field of

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trade and industry in Tanzania. There are about 15,000 Indian nationals [expatriates] mostly professionals, who live and work in Tanzania, mainly in industry and services.

- India and Tanzania share vibrant economic, commercial and business ties. India is Tanzania's third largest trading partner with bilateral trade of **USD 4.58 billion in 2021-22 and USD 6.4 billion in 2022-23.**
- India is also among the top five investment sources in Tanzania, and as per the Tanzania Investment Centre, Indian investments in Tanzania add up to **USD 3.68 billion.**
- India has significant Indian investment in Tanzania, which is the country's key trade partner in Africa.
  - **Bank of India, Bank of Baroda, and Canara Bank have operations in Tanzania.**
- Both nations have a Water Partnership which involves soft loans of almost a billion dollars, which when the projects are completed, will bring safe drinking water to 8 million Tanzanians and will cover 28 towns in this country. **India has so far contributed USD 1 billion in assistance for water projects in Tanzania.**
- India and Tanzania have started trade settlements in local currencies, and this new initiative will help in promoting commerce between the two countries.
- The decision by **IIT-Madras to open a campus in Zanzibar** is an important milestone in our relations. It will become a hub of high-quality education for Tanzania and students from regional countries.

#### PEPPER IT WITH:

IITs, India- Africa Relations, African Union as 21<sup>st</sup> Member of G-20

#### Key points:

- Discussions were focused on various chapters, including **Initial Provisions and General Definitions, Rules of Origin, Trade in Goods, Customs Procedures and Trade Facilitation, Technical Barriers to Trade, Sanitary and Phytosanitary Measures, General and Security Exceptions, Cooperation and Legal and Institutional Issues/Dispute Settlement** during this special round.
- Discussions on **Services, Movement of Natural Persons, Trade Remedies and Investment chapter** will be held later in the month based on mutual convenience of the negotiators.
- Negotiations for the India-Peru Trade Agreement commenced in **2017**, and the fifth round was concluded in **August 2019**. On account of Covid, the negotiations came to a pause. The Trade Agreement is anticipated to significantly boost trade and investment and enhance cooperation in various sectors. **The sixth round is slated to be held in December, 2023 at Lima in Peru.**

#### India-Peru trade Relationship:

- Trade between India and Peru is growing, with trade crossing the **US \$1 billion mark in 2011-12 and the US\$3 billion mark in 2017-18.**
  - The total trade between two countries in the Financial Year 2020-21 was **US\$2,285.57 million, of which India's exports were worth US\$764.69 million and imports from Peru were US\$1,520.88 million.**
- India and Peru have been experiencing steady growth in their trade relationship. During **FY 2022-23, the bilateral trade volume reached \$3.12 billion.**
- India exported **goods worth \$ 865.91 million** to Peru and imported **goods valued at \$ 2.25 billion** from Peru.
- Key Indian exports to Peru include **motor vehicles/cars, cotton yarn and pharmaceuticals,** while Peru primarily exports **gold, copper ores and concentrates.**

#### PEPPER IT WITH:

India- South America Relation, Peruvian Ocean Current, Indian As the pharmacy of the World

## India-Peru Trade Agreement

### News Excerpt:

Recently, A **Special Round of negotiations** for the India -Peru Trade Agreement was held virtually on 10-11th October 2023.

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## INDIA- PERU RELATIONS

- India established diplomatic relations with Peru in March 1963.
- Since early 2000s, the relationship has acquired more economic and business content leading to a Joint Study on Feasibility of a Trade Agreement.
- Many bilateral agreements have been signed by the two sides over the years, covering a wide range of areas. Some of the more recent ones include Customs Cooperation Agreement, Cooperation in New and Renewable Energy, Defence Cooperation Agreement, Establishment of a Joint Commission, Educational Exchange Programme, and MoU on Cooperation in Geology and Mineral Resources.
- The size of the Indian community in Peru is small, numbering around 450, including PIOs, mainly engaged in business and trade.

## India-Italy Sign Defence Cooperation Agreement

### News Excerpt:

Recently, India and Italy **signed an agreement on cooperation** to promote engagement in various **defence domains**. This was concluded after the bilateral talks between the Defence Minister of India and his Italian counterpart in Rome.

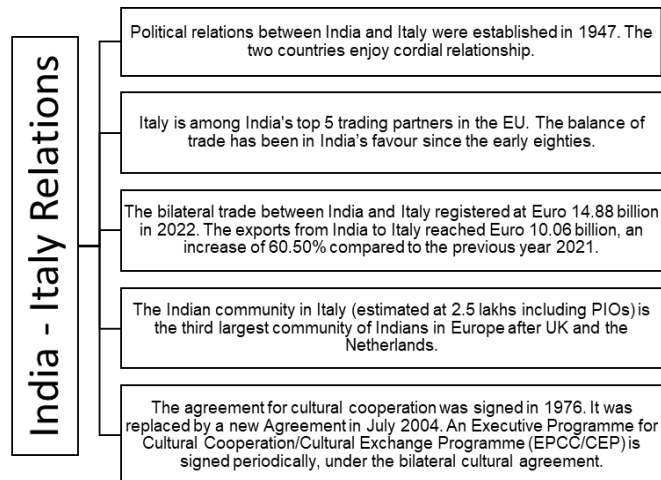
### Key points:

- During the meeting, both sides discussed **various defence cooperation issues**, including **training, sharing of information, maritime exercises and maritime security**.
- Both Ministers discussed the **complementary capacities of India and Italy in defence and the possibilities of joint development**.
- The Defence Minister of India suggested fostering the interaction of the **Indian start-ups with the Italian defence companies**.
- The relationship between India and Italy was elevated to a Strategic Partnership in March 2023 during the visit of the Italian Prime Minister to India.

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### PEPPER IT WITH:

Culture and Defence Ties, EU, PIOs, Formation of Italy as Nation State (World History)



## PRE-SHOTS

### RuPay Domestic Card Scheme Agreement between India and the UAE

### News Excerpt:

NPCI International Payments Limited (NIPL), a wholly-owned subsidiary of the National Payments Corporation of

India (NPCI), has entered into a strategic partnership agreement with AI Etihad Payments (AEP) for Domestic Card Scheme (DCS) Implementation in UAE.

### About Domestic Card Scheme:

- It is based on the principles of sovereignty, speed to market, innovation, digitization, and strategic independence.
- It comprises a RuPay stack and value-added services like fraud monitoring and analytics.

### India - Japan Fund

### News Excerpt:

The National Investment and Infrastructure Fund has collaborated with the Japan Bank for International Cooperation (JBIC) to unveil a \$600 million India-Japan Fund.

### About India - Japan Fund:

- It will focus on environmental sustainability and low carbon emission strategies and aims to be a 'partner of choice' to further enhance Japanese investments into India.
- The Indian government will contribute 49% to the target corpus for the India-Japan fund, NIIF's first bilateral fund, while JBIC will contribute the remaining 51%.

**NIIF** is a **sovereign wealth fund** founded in 2015 to provide an investment platform for international and Indian investors.

**JBIC**: It is a policy-based financial institution in **Japan**. It conducts **lending, investment and guarantee operations** while complementing the **private sector financial institutions**.

### India was re-elected as President of AIBD.

### News Excerpt:

Recently, India has been elected as President of Asia Pacific Institute for Broadcasting Development. India has already served two terms as President since 2018.

### About AIBD:

- It was established in 1977 under the auspices of UNESCO.
- It is a unique regional intergovernmental organization that currently has 92 member organizations from across 44 countries, including 26 Government Members (countries).
- India is one of the founding members of AIBD.

### India and Saudi Arabia Sign MoU

### News Excerpt:



India and Saudi Arabia have signed a MoU in Electrical Interconnections, Green / Clean Hydrogen, and Supply Chains on the sidelines of the MENA Climate Week in Riyadh.

#### About Middle East and North Africa (MENA) Climate Week 2023:

- It was held in Riyadh, Saudi Arabia, October 8 - 12, 2023.
- It discussed climate solutions ahead of COP28.
- It brings together a diverse group of stakeholders to discuss many topics, including the **Global Stocktake** and the economic and energy security aspects of climate action in the context of the Paris Agreement.

#### Global Stocktake (GST):

- It allows countries to periodically take stock of the implementation of the Paris Agreement.
- The first GST started in Glasgow in 2021 and will conclude at the Dubai, UAE climate change conference (COP 28).
- **UNFCCC CoP-28** will be organized from 30th Nov to 12th Dec, 2023.

#### Australian referendum to create an Indigenous Voice to Parliament fails

##### News Excerpt:

Recently, the Australian Parliament has passed a law to alter the Constitution to recognize the **First Peoples of Australia** by establishing an **Aboriginal and Torres Strait Islander Voice**.

#### About the Aboriginal people of Australia:

- They make up about 3.2% of Australia's population,
- They are known to have occupied mainland Australia for at least 65,000 years.

**Torres Strait Islands:** It is an archipelago of small islands in the Torres Strait, a narrow body of water between the northern tip of the state of Queensland and the large island of Papua New Guinea.

#### Sri Lanka chairs the Indian Ocean Rim Association (IORA)

##### News Excerpt:

Indian Ocean Rim Association's (IORA) Council of Ministers (COM), held recently in **Colombo**, was attended by **foreign ministers** and senior officials of the **23-nation grouping of countries**.

#### Highlights of the Summit:

- They adopted the **Colombo Communique** and the **'IORA Vision 2030 and Beyond.'**
- Signed Joint Venture Shareholders' agreement between the National Dairy and Development Board

(NDDDB), Gujarat Cooperative Milk Marketing Federation and the Cargills Group of Sri Lanka, which will strengthen the Sri Lankan dairy sector.

#### About IORA:

- It is an intergovernmental organization **formed in 1997** in Mauritius to foster regional economic cooperation.
- It includes **23 countries** from Africa, West Asia, South Asia, South East Asia, Australia, and coastal states in and around the Indian Ocean.
- The grouping, whose **apex body** is the **Council of Foreign Ministers** that meets once a year, moves by rotation through members every two years.
- Sri Lanka took charge as Chair this year from Bangladesh, and India is Vice-Chair, meaning that the troika of IORA is within the South Asian region.
- It became an **observer** to the **UN General Assembly and the African Union** in 2015.
- Decisions made within IORA are reached by consensus, and commitments are undertaken voluntarily.
- The IORA **Secretariat is based in Mauritius**. A fixed-term Secretary-General heads it.
- Its genesis comes from a speech **Nelson Mandela** gave in Delhi in 1995.

#### Operation Ajay

##### News Excerpt:

As the Israel-Hamas war escalated, India launched Operation Ajay to repatriate its citizens from Israel and Palestine.

#### Earlier similar operations:

- **Operation Ganga:** Under this, India brought back its citizens stuck in Ukraine amid the **Russia-Ukraine war**.
- **Operation Kaveri:** It was launched to evacuate Indians stranded in war-torn **Sudan**.
- **Operation Raahat:** It was launched by the Indian Armed Forces to evacuate 4,640 Indian citizens from Yemen during the 2015 **Yemen Crisis**.
- **Operation Maitri:** It was a rescue and relief operation in Nepal carried out by the government of India and Indian armed forces in the aftermath of the **2015 Nepal earthquake**.
- **Operation Safe Homecoming:** It was launched by the Indian government in 2011 to evacuate its citizens fleeing from the **Libyan Civil War**.
- **Operation Sukoon:** It was carried out by the Indian Navy to evacuate Indian, Sri Lankan and Nepalese nationals from the conflict zone during the **2006 Lebanon War**.

## CURRENT CONNECT- OCTOBER- 23

### 9th G20 Parliamentary Speakers' Summit, 2023 (P-20, Summit)

#### News Excerpt:

Prime Minister Shri Narendra Modi recently inaugurated the 9th G20 Parliamentary Speakers' Summit (P20) in New Delhi.

#### Key Highlights:

- The **theme** of the 9th P20 Summit is 'Parliaments for One Earth, One Family, One Future'.
- Speakers of Parliaments of G20 members and invitee countries attended the event. The Pan-African Parliament also took part in the P20 Summit for the first time after the African Union became a member of G20.
- The Summit **focused on four subjects** – (1) Transformation in People's Lives through Public Digital Platforms, (2) Women-led development, (3) Accelerating SDGs, and (4) Sustainable Energy Transition.
- A **pre-summit Parliamentary Forum on LiFE (Lifestyle for Environment)** was also held to deliberate upon initiatives towards a greener and sustainable future in harmony with nature.
- After India's P20 presidency, the Lok Sabha Speaker handed over the **presidency to the Parliament of Brazil**.

### India, UN Capacity Building Initiative

#### News Excerpt:

India and the United Nations have jointly launched an initiative aimed at building the capacity of countries in the Global South.

**Aim:** The goal is to share India's development experiences, best practices, and expertise through capacity-building and training programs.

#### Key Highlights:

- Under this capacity-building endeavour, the **UN-India team** and the **Gates Foundation** will collaborate, utilizing India's technical and economic cooperation platform to share India's development experiences and best practices worldwide.
- The initiative will also implement the development goals established during India's G20 Presidency, including the **G20 Action Plan** for advancing the **Sustainable Development Goals (SDGs)** and enhancing technology and digital infrastructure.

### Armenia's Parliament Votes to Join the 'International Criminal Court'

#### News Excerpt:

Armenia's Parliament recently voted to join the International Criminal Court, which further strains the country's ties with its old ally Russia.

### About the International Criminal Court (ICC):

- The Rome Statute created the ICC. There are 123 States Parties which signed the Statute on 18 July 1998 and ratified it on 9 June 2000.
- The Statute entered into force on 1 July 2002 after the ratification by 60 States.
- But dozens of governments are not ICC parties, including China, India, Russia, and the United States.
- The ICC was established as a court of last resort to prosecute the most heinous offences in cases where national courts fail to act.
- Unlike the International Court of Justice, which hears disputes between states, the ICC handles prosecutions of individuals.
- It is located in the Hague, the Netherlands. This treaty was negotiated within the UN; however, it is an independent judicial body distinct from the UN.

### Spain - Catalonia

#### News Excerpt:

Recently, Catalonia's regional President Carles Puigdemont has called for a referendum on a split from Spain.

#### About Catalonia:

- It encompasses the northeastern provinces of Girona, Barcelona, Tarragona, and Lleida.
- It is bordered by **France and Andorra** to the north, the **Mediterranean Sea to the east**, the autonomous **community of Valencia** to the south, and the autonomous **community of Aragon** to the west.
- The principal rivers in Catalonia are the **Ter, Llobregat, and Ebro**, all of which flow into the Mediterranean.
- Catalonia's traditional agriculture was centred on producing **wine, almonds, and olive oil for export** and rice, potatoes, and corn (maize) as staples.



**The reason behind Catalonia seeking Independence:**

- Catalonia, which is Spain's richest region, has a distinct cultural heritage and language. The push for independence crystallized during the fallout of the global financial crisis in 2008.
- Some Catalans believed the country's rising unemployment levels and languishing economy was pulling the region down, and they began to seek greater autonomy from Madrid.

**India and UN Launch Joint Capacity-Building Initiative for Global South**

**News Excerpt:**

India and the United Nations have launched a joint capacity-building initiative that will operationalize development-relevant deliverables of **India's G20 Presidency** and aims to share the **country's best practices with partner countries in the Global South**.

**About the Initiative:**

- It was announced at the event '**India-UN for the Global South-Delivering for Development**'.
- It will significantly contribute to global efforts towards accelerating momentum for achieving the **Sustainable Development Goals** by strengthening **South-South Cooperation**.
- Under this, the **UN India team and the Bill & Melinda Gates Foundation** will partner to share India's developmental experiences worldwide.

**Quad Ministers Hold Talks on Rules-Based Order, UN Reform**

**News Excerpt:**

Recently, Foreign Ministers of the **Quad countries (India, Australia, Japan, and the U.S.)** reaffirmed the group's commitment to a **"free and open" Indo-Pacific region**, where disputes are settled following international law.

**Key Highlights:**

- They committed themselves to the principles of the UN charter and reform of the institution.
- They stressed their commitment to countering terrorism, including terror financing and cross-border movement of terrorists and curbing the use of emerging technologies for terror purposes.
- They also backed the UN's efforts to restart the **Black Sea Grain Initiative (BSGI)**, a deal that secures grain exports from Ukraine and Russia.
- They expressed "deep concern" and called for a **"just" and "lasting" peace in Ukraine** without naming **Russia** as the aggressor.
- The joint statement called for **"comprehensive" UN reform**, including expanding permanent and non-permanent representation on the UN Security Council.
- The group reiterated its commitment to practical initiatives in the Indo-Pacific region, including -
  - Quad Infrastructure Fellowship Programme,
  - A pandemic preparedness exercise,
  - Development of a "trusted and secure" telecommunications network.

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## ENVIRONMENT & ECOLOGY

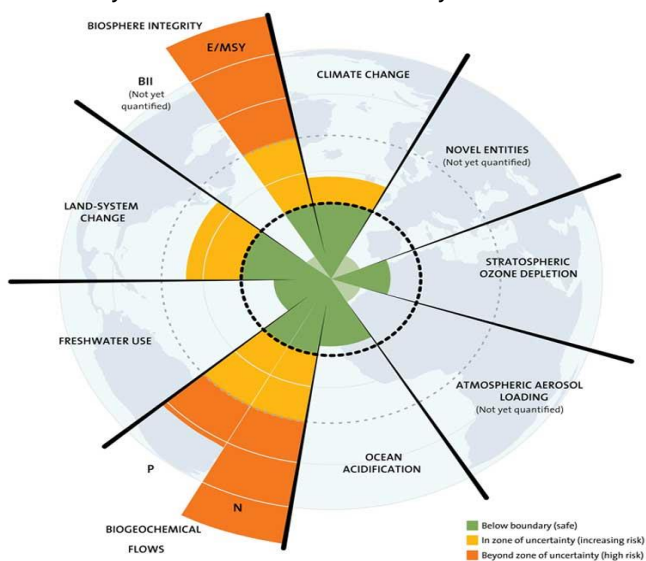
### Humans Breach Most of The Planetary Boundaries

#### News Excerpt:

Recently, a study published in Science Advances stated that **Earth has breached 6 out of 9 planetary boundaries.**

#### About Planetary Boundaries:

This Framework was developed in 2009 to measure and quantify the anthropogenic impact on the Earth System. It identifies nine processes that are critical for maintaining the stability and resilience of the Earth system as a whole.



#### Nine Planetary Boundaries and Control Variables:

- Biosphere Integrity:** The health of ecosystems and rate of species extinction.
- Climate Change:** Atmospheric CO<sub>2</sub> concentration and change in radiative forcing.
- Novel Entities:** Levels of plastic, concrete, synthetic chemicals, and gene-modified organisms.
- Stratospheric Ozone Depletion:** Release of ozone-depleting chemicals.
- Freshwater Change:** Human-induced impact on both surface and soil water.
- Atmospheric Aerosol Loading:** Particles from human emissions affecting cloud formation and atmospheric circulation.
- Ocean Acidification:** Reduction in ocean pH over time.
- Land System Change:** Changes in land use and fires, mainly deforestation and conversion of tropical forests to farmland.
- Biogeochemical Flow:** Alteration in natural flows of nitrogen and phosphorus cycles, which are vital for plant growth.

#### Radiative forcing:

- It measures the change in energy balance due to a change in a climate-forcing agent (e.g., greenhouse gaseous, aerosol, cloud, and surface albedo) to affect the global energy balance and contribute to climate change.
- A climate forcing is an energy imbalance imposed on the climate system externally or by human activities.

#### Findings of the Study:

6 Planetary boundaries have been breached by Humans out of 9, which are: **climate change, biosphere integrity, freshwater change, land system change, biogeochemical flows, and novel entities.**

- Climate Change:** The planetary boundary for atmospheric CO<sub>2</sub> concentration and radiative forcing was set at 350 parts per million (ppm) and 1 Watts per square meter (W/m<sup>2</sup>) respectively.
  - However, the current levels are 417 ppm and 2.91 W/m<sup>2</sup>, respectively, indicating a significant overshoot.
- Biosphere Integrity:** The safe limit for human-induced species extinctions was set at less than 10 extinctions per million species-years, but the actual rate exceeds at over 100 extinctions per million species-years.
  - Approximately 1 million out of the 8 million plant and animal species are threatened with extinction.
  - Humans appropriated roughly 30 % of the net

**NPP** equals the difference between the amount of carbon produced through photosynthesis and the energy used for respiration.

primary production (NPP) or the energy available to support biodiversity before the Industrial Revolution.

- Land System Change:** The global forested land area has fallen below the safe limit of 75% and currently holds only 60%.
- Freshwater Change:** Both blue water (surface and groundwater) and green water (available water for plants) surpassed their safe thresholds of 10.2% and 11.1%, respectively.
  - They are now standing at 18.2% and 15.8%, respectively.
- Biogeochemical Flows:** Phosphorus and Nitrogen in the environment have exceeded the safe limits, triggering algal blooms and ocean dead zones.



- The limit for phosphorus was set at 11 teragrams (Tg) and has now reached 22.6 Tg.
- The limit for Nitrogen was 62 Tg and is currently at 190 Tg.
- **Novel Entities:** The planetary boundary for novel entities was set at zero, implying no adverse impact. However, human novel entities like microplastics, endocrine disruptors, and organic pollutants have transgressed this limit.
- **Elements under safe planetary boundaries:** Stratospheric ozone depletion, aerosol loading, and ocean acidification were found to be within the safe planetary boundaries.

#### Measures to Recover Earth's Health:

- **Urgent Action:** Curtail fossil fuel burning and destructive farming practices.
- **Global Cooperation:** Global agreements are needed to mitigate climate change, reduce plastic pollution, and prevent habitat destruction.
  - E.g.: **The Global Commons Alliance** to reverse current trends and bring Earth's trajectory back to a stable Holocene period, the **Montreal Protocol** to heal the stratospheric ozone depletion boundary, etc.
- **Sustainable Practices:** Embrace sustainable land use practices and reforestation to restore forest areas and protect natural habitats.
- **Responsible Chemical Management:** Implement stricter regulations and testing for synthetic chemicals and plastics.
- **Research and Innovation:** Invest in research and innovation to develop sustainable and eco-friendly alternatives to current practices and materials.
- **Embrace Circularity:** Foster resource regeneration, minimize waste and ensure that valuable materials are continuously repurposed rather than discarded.

#### Way Forward:

The root cause of these breaches is our unsustainable economic model, which we can characterize as **WILD: Wasteful, Idle, Lopsided, and Dirty**. We can return to our safe operating limits by transitioning to a **CLIC economy: Circular, Lean, Inclusive, and Clean**.

#### PEPPER IT WITH:

Global Commons Alliance, Montreal Protocol, Ocean Acidification, Climate Change, Ozone Depletion

### National Framework for Climate Service

#### News Excerpt:

India recently initiated a significant first-ever national-level framework offering climate-smart solutions for various climate-related issues.

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#### About the National Framework for Climate Services (NFCS):

**The National Framework for Climate Services (NFCS) is led by the Indian Meteorological Department (IMD). It is modelled around the Global Framework for Climate Services, which was made during the Third World Climate Conference held in Geneva in 2009.**

#### About Global Framework for Climate Service (GFCS)

- The GFCS is a UN-wide initiative in which WMO Members and inter- and non-governmental, regional, national and local stakeholders work in partnership to develop targeted climate services.
- National Meteorological and Hydrological Services lead GFCS in their respective nations.
- It aims to generate high-quality data from national and international databases on temperature, rainfall, and weather conditions for the long term.
- 5 components of GFCS:
  - § Observations and monitoring
  - § Climate service information system
  - § Research, modelling, prediction
  - § User, interface platform
  - § Capacity Development

**Aim:** It aims to create a comprehensive platform to provide Climate information and services on priority sectors like **agriculture, energy, disaster management, health and water**, making it user-friendly and enabling informed decision-making and mitigating climate change risks.

#### Role of NFCS:

- To focus on bridging collaboration gaps among agencies requiring climate services like renewable energy, transport, dams, irrigation, hydrological power, and health agencies at all levels, including centre, state and other levels.
- Although aligned with the Global Framework, it focuses on nation-specific unique weather and stakeholder needs.

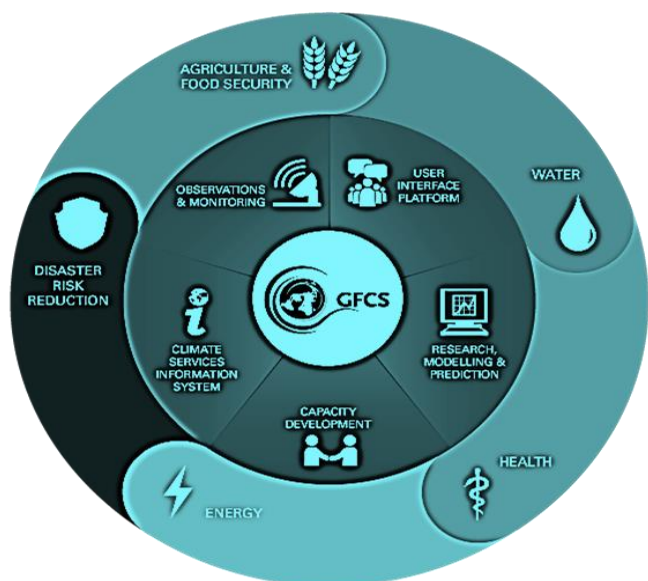
#### Implementation of NFCS:

- **Countries with Launched NFCS:** Switzerland, China, Germany, United Kingdom.
- **India's status of implementation:**
- India's adoption of NFCS is at the consultation stage.

- India has started planning its national consortium workshops on the implementation of NFCS. The first workshop was held in Pune.

#### Significance of NFCS:

- Supplement to the Global Agenda:** It will aid India in achieving goals of most global agendas like the Sendai Framework, Global Biodiversity Framework, Paris Climate Targets, SDG goals and so on.
- Protection of vulnerable communities:** By providing information on weather and climate services, it will provide resilience to the vulnerable communities largely dependent on Indian monsoons and marine aquaculture.
- Identification of critical gaps and risks:** It will provide scientific and region-specific information, which will enable the bridging of functional gaps and focus on areas requiring urgent attention. It will enhance preparedness and be better equipped to handle adverse conditions.
- Informed decision-making:** Improved quality of data collection and enhanced observational network will result in informed decision and policy-making.
- Customizable priority areas:** In addition to the priority areas mentioned by the Global Framework, that is agriculture, energy, disaster management, health and water. Country-specific target areas can also be included, which need urgent importance.
- Coherent approach:** The Framework seeks to establish a coherent approach at multiple levels of the centre, state and other local levels. This effective collaboration is critical for making the platform fully operational.



#### Way Forward:

Launching of the NFCS is critical and essential to India's commitment to Climate Change mitigation at the global

level. It will prove to be effective in addressing policy gaps and assisting in decision-making. It is a significant step in India's effort to combat Climate Change and better manage climate vagaries.

#### PEPPER IT WITH:

Climate Change, upcoming CoP-28, Third World Climate Conference, IMD

### The Popularity of Hybrid Seeds

#### News Excerpt:

The popularity of Hybrid Seeds has been increasing among farmers in India for over a decade due to their quicker harvesting as compared to Open-Pollinated Variety (OPV) or traditional seeds.

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#### What are hybrid seeds?

- In agriculture and gardening, hybrid seed is produced by deliberately cross-pollinated plants that are genetically diverse.
- Hybrid seeds are used to improve the characteristics of the resulting plants, such as better yield, greater uniformity, improved colour, and disease resistance.

#### Hybrid Seeds in India:

- The Green Revolution in India in the 1960s**, when the government focused primarily on boosting agricultural productivity, is where hybrids first appeared. The National Seed Corporation was established to create, store, and distribute high-yield variety seeds to accomplish this.

#### National Seeds Corporation Limited (NSC):

- Incorporated in 1963, National Seeds Corporation Limited (NSC) carries out foundation and certified seed production.
- It is wholly owned by the Indian government and is managed by the Ministry of Agriculture and Farmers' Welfare.
- It belongs to the Miniratna Category I.
- Until the 1980s**, the public sector provided farmers with seeds from open-pollinated varieties (OPV).
- The government started allowing **private companies** to create and sell hybrid types in the 1990s.
- The diversity of the nation's crops and the conventional kinds** better adapted to the regional Climate are threatened by this tendency, which has persisted.
- Traditional varieties, which are hand-selected by farmers from the field after harvest** for use the following year and can be repeated for generations, or

open-pollinated variety (OPV) seeds, which are typically developed by agricultural universities and can be used for five to seven years, mature much more quickly than hybrid varieties.

#### Why is there increasing demand for hybrid seeds in India?

- In India, hybrid seeds are primarily developed and sold by national and international private sector companies, according to the **25th Report of the Standing Committee on Agriculture**. (2021)
- The private sector's share of the country's seed market has increased from 57.3 percent in 2017–18 to 64.5 percent in 2020–21.
- **According to a 2019 research, by the Indian Council of Food and Agriculture**, the country's seed industry had a value of US \$4.1 billion in 2018, representing growth of 15.7% from 2011 to 2018, and is anticipated to increase at a pace of 13.6% from 2019-24 to reach a value of US \$9.1 billion by 2024.
- **Farmers have a gap between two crop cycles to plant short-duration crops like potatoes** because hybrid seeds have a quicker harvest quality.
- Approximately **85% of this seed market comprises wheat and paddy**.
- In India, hybrid seeds are only available for paddy, which takes up **roughly 6% of the 44 million hectares of rice-growing land there**.

#### Challenges (Why it is not good):

- Hybrid seeds are susceptible to rain and temperature.
- **Threatens** agricultural diversity.
- **Indigenous crop varieties that were once widely grown are now extinct because** they had a specific propensity to endure harsh environments due to poor yield.
  - Farmers are occasionally compelled to purchase hybrids because of the scarcity of traditional seeds, particularly from government seed banks.
- **Farmers have reported crop failure and lower yields while using hybrid varieties**, particularly in maize. They are more sensitive to diseases, which reduces production.
- **With increased demand, manufacturers tend to raise hybrid seed prices.**
- **Lack of government backing, for example: In 1993**, the government launched PR-Indira, an OPV paddy variety. It produced a yield comparable to hybrid cultivars but, was abruptly withdrawn in 1998.
- **The 2001 Protection of Plant Varieties and Farmers' Rights Act** transferred collective ownership of seeds to individual ownership, benefiting seed breeders and developers.

- The yields of hybrid cultivars are sometimes overstated.

#### Fiji Disease Virus (FDV):

- FDV is named after the country in which it was originally observed.
- FDV belongs to the reoviridae family and infects plants.
- The type species of the genus Fijivirus it is the only known member of Fijivirus group 1.

#### PEPPER IT WITH:

GM Crops, GEAC, Bt-Cotton, DMH-11, Casper-Cas-9, open-pollinated varieties (OPV) Seeds

#### Way Forward:

With India's Green Revolution efforts, hybrid seeds provide shorter crop cycles and higher yields. The complex dynamics of modern agriculture in India highlight that while hybrid seeds have advantages like consistency and resilience, they also have drawbacks like temperature sensitivity and the potential loss of native crop diversity.

### India's Bamboo Biodiversity

#### News Excerpt:

The Department of Forests and Wildlife (Delhi) is bringing together over 6,000 types of Indian plants to create the **Bamboo Biodiversity Project** as a part of the "Meri Maati, Mera Desh" programme.

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#### About the project:

The Bamboo Biodiversity Project is a pioneering conservation effort to protect India's rich bamboo biodiversity. This project lies at the 'Bharat Kunj' **Bambusetum** (established in the shape of India's map) on the Yamuna floodplains in Delhi.

#### Meri Maati Mera Desh Campaign

This campaign celebrates India's 77th anniversary by encouraging people to send soil from their native places to the Ministry of Culture to create Amrit Vatika.

**Objective:** Honor the brave freedom fighters and brave hearts who sacrificed their lives for the country.

The PM suggested the 'Meri Maati Mera Desh' campaign, giving true value to its tagline 'Mitti ko naman, veeron ka vandan.'

**Significance:** It will promote 'Jan Bhagidari' by conducting different programs and events at village, Panchayat, Block, Urban Local Body, State and National levels.

#### Status of Bamboo in India:

- Bamboos belong to the grass family Poaceae (Gramineae) and are known by various terms such as "green gold", "poor man's timber", "friend of the people", and "cradle to coffin timber".

- **Species in India:** 136 indigenous and exotic species of Bamboo belonging to 23 genera.
- **Coverage:** According to the **Forest Survey Report 2021**
  - Bamboo forests occupy roughly 12.8% (10.03 million hectares) of the total forest area in the country.
- **Geographical Area:** Bamboos, native to the tropics, also exist in subtropical and temperate zones.
- **Producing States:** **Assam** is the largest producer of Bamboo in India.
  - More than 50% of the bamboo species occur in Eastern India - Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, and West Bengal.
  - Other bamboo-rich areas are the Andamans, the Bastar region of Madhya Pradesh and the Western Ghats.
- **India's global status:** India is the world's second-largest cultivator of Bamboo after China, but its share in the global bamboo trade and commerce is only 4%.

#### Benefits of Bamboo:

- **Raw material:** Greater tensile strength than steel and withstands compression better than concrete.
  - The Prime Minister called Bamboo- '**green steel**' while inaugurating the new Bengaluru Airport terminal, showcasing its versatility as an architectural and structural material.
- **Livelihood security:** Key crop to double farmers' income, increase employment opportunities and improve livelihood opportunities, especially in the North-East region.
- **Soil health:** Biochar produced by anaerobic combustion of bamboo benefits soil health by increasing organic carbon.
- **Ecological benefits:**
  - Eco-friendly mouldable granules from Bamboo can replace the use of plastic.
  - It is a reliable source of bioethanol and bio-energy production due to its fast rate of growth and abundance.
  - Bamboo-based ethanol plants can help to achieve 20 % ethanol blending in petrol by 2025.
  - It is a sustainable energy source that produces 1kwh of electricity from 1.2 kg of Bamboo.
- **Socio-cultural benefits:** The market of bamboo-based lifestyle products, cutlery, home decor, handicrafts and cosmetics is also growing.
- **Disaster-resistant:** Earthquake-proof and can withstand drought as well as flood.

#### Initiatives taken to promote Bamboo:

- **Bamboo Clusters:** The MoA&FW has inaugurated 22 bamboo clusters in 9 states: Gujarat, Madhya Pradesh, Maharashtra, Odisha, Assam, Nagaland, Tripura, Uttarakhand, and Karnataka.
- **Minimum Support Price (MSP) support:** Recently, the Central government has revised the MSP for Minor Forest Produce (MFP).
  - MFP includes all non-timber forest produce of plant origin, including Bamboo, canes, fodder, leaves, waxes, resins, wild fruits, etc.
- **Not included in the 'Tree' Category:** Bamboo outside forest areas has been excluded from the category of trees by amending the Indian Forest Act, 1927 in 2017.
  - This will enable Bamboo cultivation and business without felling and transit permission.
- **Formation of 10,000 new Farmer Producer Organizations (FPOs) in 5 years** offering assistance to farmers.
- **Trade support:** Import policy has also been altered to support the growth of the country's bamboo sector.
- **National Bamboo Mission (NBM):** It helps local artists by using locally grown bamboo species, indirectly boosting farmers' revenue and reducing their reliance on raw material imports.
  - E.g.- NBM launched an MIS-based reporting platform for agarbatti stick production.

#### National Bamboo Mission (NBM)

- NBM was launched in 2006-07, and **Restructured NBM** was developed in 2018-19.
- During the year 2022-23, the NBM has been merged with the Mission for Integrated Development of Horticulture (MIDH) scheme.
- **Objectives:** Developing the complete value chain of the Bamboo sector, linking growers with consumers, including planting, plantation, facilities, marketing, and skilled manpower initiatives.
- **Nodal Ministry and Implementing Authority:** The Department of Agriculture & Cooperation (DAC), Ministry of Agriculture and Family Welfare (MoA&FW).
- It is a **Centrally Sponsored Scheme**
- **Funding Pattern:**
  - NE & Hilly States: 90:10 between Centre and State Govt.
  - All other States: 60:40 between Centre and State Govt.
  - Union Territories/R&D Institutes/Bamboo Technology Support Groups (BTSGs) and National Level Agencies: 100% by Central Government.



- **Restructured NBM uses** a cluster-based approach, focusing on industry and spoke models to connect farmers to markets and harness opportunities.
  - Presently, the scheme is being implemented in 24 States/UTs.
  - **Common Facility Centres:** These are being established near the plantations to cut transportation costs and encourage local entrepreneurship while moving toward a zero-waste strategy.
- Way Forward:**
- A national programme of **intensive bamboo plantation** involving all stakeholders needs to be undertaken beyond 2019-20.
  - The **National Housing Scheme (PMAY)** should **utilize Bamboo** as construction material.
  - Developing Bamboo as a **load-bearing structural element** would pave the way for its high-value application in construction, making it an economically viable method of greening vast wastelands.
  - **Edible Bamboo** has a massive demand in East Asian cuisines and medicine. Bamboo grown in the Northeast (66 % of the growing bamboo stock in India) can be exported to East Asian countries like Japan and Taiwan for competitive prices with the government's support.
  - The National Bamboo Mission (NBM) promotes comprehensive bamboo sector growth through a regionally differentiated strategy for cultivation and commercialization, aiming to expand its area.

**PEPPER IT WITH:**

MSP, Indian Forest Act 1927 and its amendments, Formation of FPOs, Difference between plantation and crop.

## The World's Water Cycle Severely Impacted by Climate Change

**News Excerpt:**

On **12<sup>th</sup> October 2023**, the **World Meteorological Organization (WMO)** released the **State of the Global Water Resources Report 2022**. The Report is a holistic and extensive assessment of the World's Water Cycle. It highlighted that the global hydrological cycle is being disrupted by climate change and human activity. It has aggravated the risk of extreme climatic conditions like floods and droughts.

### Key Findings of the State of the Global Water Resources Report 2022:

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- **Hydrological Assessment:**
  - **River discharge:** In 2022, over 50% of global catchment areas experienced below-normal river discharge conditions, with many areas being drier than usual.
  - **Inflow to reservoirs:** More than 60% of major water reservoirs were identified with below-normal inflow, making it difficult to meet the increasing human demand.
  - **Soil moisture:** Presence of anomalies in soil moisture throughout 2022. **For instance**, Europe faced a major heat wave and drought-like conditions, which harmed agricultural production and access to water to power plants.
- **Cryosphere Changes (Frozen water):**
  - **The Asian Water Tower (AWT)** is vital for water supply to **2 billion people**. It is experiencing a notable glacier mass loss and decreased snow cover. From 2000-2018, total glacier mass has receded by more than 4%. **For instance:** The recent South Lhonak Glacial Lake outburst in North Sikkim.

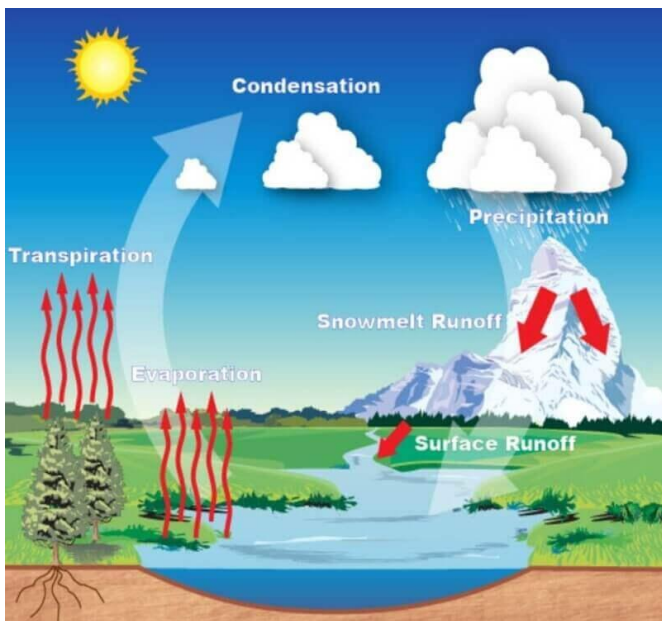
**About Asian Water Tower (AWT):**

- It is the world's largest reservoir of Ice after the Antarctic and the Arctic region.
- It comprises the **Third Pole region** including **The Tibetan Plateau, the Himalayas, the Karakorum, the Hindu Kush, the Pamirs and the Tien Shan Mountains**.

- **Status of Rivers:** Severe droughts in Europe, low water levels in the Mississippi River, and prolonged drought in the Yangtze River basin had various impacts on water resources and economic activities. A mega flood in the Indus River Basin in Pakistan, killed at least 1700 and affected 33 million.

**Impact on India:**

- **Extreme Heat:** India is experiencing increasing spells of hot weather, and built-up areas are being converted into "heat islands."
  - **For instance**, According to RBI, 4.5 % of India's GDP could be at risk by 2030 due to loss of labour from extreme heat and humidity.
- **Changing Rainfall Pattern:** Climate change made Indian monsoons highly unpredictable. Abrupt changes in the rainfall pattern will aggravate the severity of drought and flood situations, causing loss and damage to life and property.
- **Agriculture and food security:** Higher agricultural yield depends on good monsoons, which sustain the livelihood of 61% of Indian farmers.
  - Failure of rainfall will impact the Indian economy with high inflation and low agricultural yields.



### Hydrological Cycle:

The hydrological cycle is a natural water cycle. It is the continuous water exchange between Earth's surface, Oceans and Atmosphere. It takes place in a cyclical process due to the heating of the Earth's surface and **evaporation** of water from the water bodies take place. Moisture-laden air is **condensed** to form clouds. As soon as it becomes heavy, it falls in the form of **precipitation** back into the Earth's surface and accumulates in the same water bodies.

- **Sea-level Rise:** WMO highlighted that the Global mean sea level has increased by 3.7mm/year (2006-2018). It would be a threat to places and countries with a large coastline like Indian cities of Mumbai, Kolkata, and Chennai.
- **Glacier Melt:** Glaciers are melting at unusually high rates at the **Hindu-Kush Himalayan Mountain ranges**. It could lose up to 80% of its volume by this century if climate change is not reversed. The stability of the glacier-fed rivers will be threatened, particularly the Indus and the Brahmaputra. Avalanches, flash floods, and Glacial lake outbursts would be more prominent.
- **Migration and Conflict:** Scarcity of basic resources like food and water would lead to large-scale migration, hunger, poverty and conflict.

#### PEPPER IT WITH:

Flash Floods, SDGs, WMO, Atmospheric and Sedimentary Cycle, Glacial Melting, GLOF

### Way Forward:

- **Climate Mitigation:** The Report highlights the need for urgent climate mitigation efforts to address the

root causes of water-related disruptions, including reducing greenhouse gas emissions.

- **Water Management and Monitoring:** The Report calls for more coordinated policies to adapt to changing water patterns.
- **Early Warning Systems:** Establishing the 'Global Early Warnings for All' initiative by 2027. It aims to provide timely and accurate hydrological data for early warnings during water-related disasters to reduce their impact.
- **Data Sharing:** The Report highlights the importance of data sharing among countries to enable meaningful early warnings and evidence-based decision-making.
- **Alignment with Sustainable Development Goals (SDGs):** The findings contribute to informed decision-making relevant to SDG 6 (Clean Water and Sanitation) and SDG 13 (Climate Action), addressing climate-related impacts on water systems.

## "Below Normal" Indian Monsoon 2023 Impacting India's Economy

### News Excerpt:

For the first time in four years, **India experienced a 'below normal' Southwest Monsoon**. There was a **rainfall deficit of 6%** compared to the long-term average of 50 years.

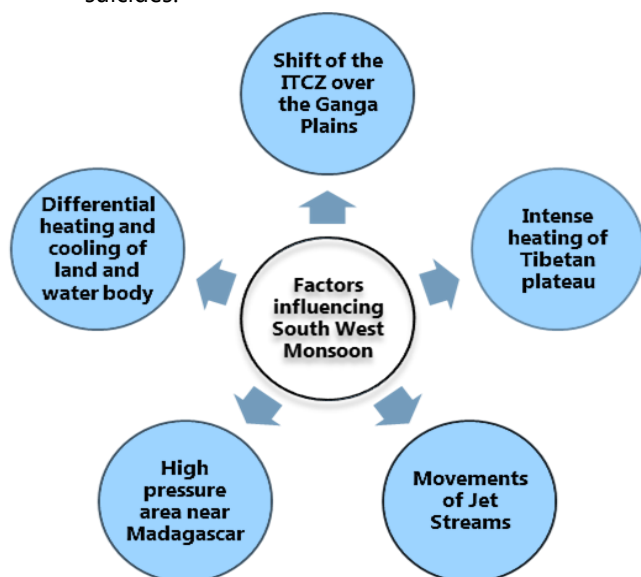
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- Around 31% of India's landmass received below-normal rainfall. Six states, Assam, Manipur, Mizoram, Jharkhand, Bihar and Kerala, recorded the highest deficit. The rainfall pattern is said to be impacted because **the current year is El-Nino**.

### Impact of Monsoon on Indian Economy:

- **Agriculture:** It sustains the livelihood of 61% of Indian farmers dependent on monsoons. 55% of India's net sown area (139.42 million ha) is rain-dependent and supports 34 crops out of 40 major crops.
- **Food Security:** Crops like wheat and rice are water-intensive crops that heavily rely on monsoons for higher agricultural output. Sufficient production will help stabilize prices and prevent the risk of food shortage.
- **Employment Generation:** As per the Periodic Labour Force Survey (PLFS) 2020-21 report, 46.5 % of total persons are engaged in agricultural activity. A successful monsoon season would create more demand for employment in the agriculture sector.
- **Inflation Control:** An adequate food supply will make essential commodities affordable for consumers, which will help to control inflation.

- **Hydroelectric Power Generation:** A good monsoon replenishes water reservoirs and aquifers, which is crucial for hydroelectric power generation.
  - 22% of electricity consumed in India is through Hydro Power Plants.
- **Economic Growth:** Agriculture contributes about 19% to India's GDP.
- **Export Opportunities:** Agricultural surplus due to good monsoons will boost India's foreign exchange reserves.
  - In 2022, India's agriculture exports touched a historic high of USD 50 billion.
  - Also, India is the world's largest sugar-producing nation and second largest rice and wheat-producing nation.
- **Impact on Balance of Trade:** A favourable monsoon boosts production and results in a positive balance of trade, whereas failure of a monsoon causes a decline in the government's revenue along with increasing expenditure, leading to a negative balance of trade.
- **Impact on the Rural Economy:** About 800 million people live in villages and depend on agriculture and allied activities. Poor monsoon can lead to drought-like situations affecting the livelihood of rural households.
  - Droughts would result in increasing NPA, and the inability to repay the loans would increase farmer suicides.



#### Government Initiatives to Tackle Failure of Monsoons:

- **Climate Prediction Systems:** Under the **National Monsoon Mission (NMM)**, state-of-the-art weather and climate prediction models are developed to improve precision monsoon prediction over India on all time scales
- **Improving Irrigation Facilities:** Pradhan Mantri Krishi Sinchayee Yojana (**PMKSY**) enhances physical access

to water and expand cultivable areas under assured irrigation to improve on-farm water use efficiency.

- **Energy Subsidies:** Government initiatives like **PM KUSUM** ensures energy security for farmers and reduce the over-dependence of diesel-powered plants.
- **Price Stabilization Schemes to Manage Inflation:** Operation Greens (TOP), PM Kisan Sampada Yojana, Minimum support price, Price stabilization fund provide a strategic buffer for essential Agri-horticulture commodities and moderate the impact of price fluctuations.
- **Creating Artificial Rain:** Recent **Cloud seeding technology** tests conducted by IIT-Kanpur can help to mitigate the rain deficit during the failure of monsoons.
- **Ground Water Replenishing:** Launching of **Atal Bhujal Yojana**, a community-led sustainable groundwater management to improve the groundwater resources in stressed areas.
- **Skill Development for Reducing Over-reliance on Agriculture:** Initiatives like PM Kaushal Vikas Yojana, Capacity building schemes, Rozgar Mela, PM Kaushal Vikas Kendra are a part of ensuring the supply of skilled labour for the manufacturing sector.
- **Research and Development in Agriculture:** Development of GM crops, and new variety of wheat crops that will withstand harsh climatic conditions.

#### PEPPER IT WITH:

Monsoon and its Branches, El-Nino, La-Nino, PM KUSUM, Atal Bhujal Yojana

#### Way Forward:

Monsoon exerts a substantial impact on India's economy, primarily through agricultural production, food supply, inflation, etc. Careful monitoring and management of this seasonal phenomenon would provide economic stability and growth.

#### PRE-SHOTS

#### Global Biodiversity Framework Fund

##### News Excerpt:

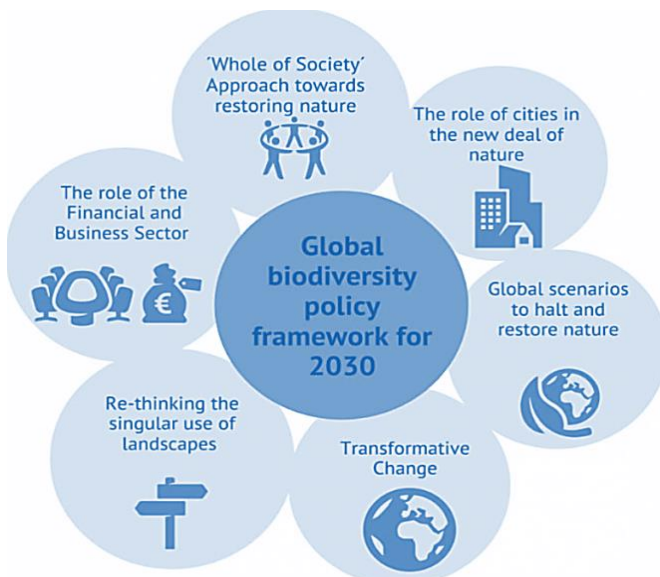
The **Global Biodiversity Framework Fund (GBFF)** was ratified and launched at the 7th Assembly of the **Global Environment Facility (GEF)** in **Vancouver (Canada)**, and its first Council meeting will be held in January 2024.

##### About GBFF:

- **GBFF** is a fund to directly support global efforts to **halt and reverse biodiversity loss by 2030**, a goal agreed to by 196 countries as part of the Global

Biodiversity Framework established at COP15.

- **Origin:** It was 1st approved in July 2023 under the Global Environment Facility (GEF).



- **Composition of GBFF Council:** 16 Members from developing countries, 14 Members from developed countries, 2 Members from the countries of central and eastern Europe and the former Soviet Union.
- **Funding Partners:** Contributions by the Governments, non-profits, and the private sector.
  - **Initial contributions** included 200 million Canadian dollars from Canada and 10 million pounds from the United Kingdom.
- **Funding Allocations:**
  - 20%- Indigenous Peoples and Local Communities (IPLCs)
  - 36%- Most vulnerable people, Small Island Developing States (SIDS).
  - 3%- LDCs (Least Developed Countries)
  - 25%- to increase resources through private sector involvement and ensure streamlined policies.
  - There would be funds channelled to non-state actors like the indigenous communities.

#### Global Environment Facility (GEF)

**About:** It is a multilateral environmental fund that distributes more than \$1 billion a year on average to address inter-related environmental challenges.

- The GEF supports the implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer (MP).
- **Origin:** It was established ahead of the 1992 Rio Earth Summit and includes 184 countries in partnership with other stakeholders.
- World Bank serves as a trustee.
- It also serves as a financial mechanism for the

following conventions:

- Convention on Biological Diversity (CBD)
- United Nations Framework Convention on Climate Change (UNFCCC)
- United Nations Convention to Combat Desertification (UNCCD)
- Stockholm Convention on Persistent Organic Pollutants
- Minamata Convention on Mercury

- **India is both a donor and a recipient of GEF.**

- **Targets:** Raise international financial flows to developing countries (at least \$20 billion by 2025 and \$30 billion by 2030).

- **Trustee of the GBFF:** World Bank.

#### First IEA Critical Minerals and Clean Energy Summit

##### News Excerpt:

The International Energy Agency (IEA) hosted the 1st international summit on critical minerals and their role in clean energy transitions in Paris.

##### About critical minerals:

- They are essential for rapidly growing clean energy technologies, economic development and national security.
- The **government has released a list of 30 critical minerals** for India, such as **Cobalt, Copper, Graphite, Nickel, Phosphorous, Potash, Silicon, Titanium**, etc.
- India has set up **KABIL** (Khanij Bidesh India Limited), a joint venture of three PSUs, to ensure a consistent supply of critical minerals to the Indian domestic market.

##### Highlights of the Summit:

The challenges and opportunities behind meeting the rising demand for minerals required for clean energy technologies were at the forefront of discussions.

IEA's 2024 Ministerial Meeting will be held in France and co-chaired by Ireland and France.

##### About IEA:

- It was established in 1974 under the Framework of the Organisation for Economic Cooperation and Development (OECD) to ensure the security of oil supplies.
- India is not a member but an associate country.
- The IEA was created in response to the 1973-1974 oil crisis when an oil embargo by major producers pushed prices to historic levels and exposed the vulnerability of industrialized countries to dependency on oil imports.





### Biennial Report on Global Infrastructure Resilience: CDRI

#### News Excerpt:

The **Coalition for Disaster Resilient Infrastructure** (CDRI) will launch the first edition of its Biennial Report- Global Infrastructure Resilience in September 2023.

#### About the Report:

**Focus:** Global attention on the critical and multi-faceted challenges of disaster and climate-resilient infrastructure, especially nature-based infrastructure solutions.

**Coordinating Agency:** United Nations Development Programme (UNDP)

#### Core initiative:

- It is expected to inform planning, decision-making, and investment in disaster and climate-resilient infrastructure by providing **credible and fully comparable probabilistic risk metrics** that cover every country and territory in the world.
- The Report comprises thematic chapters on nature-based solutions, financing for resilient infrastructure and a proposal to monitor future progress.

### Dakar Declaration on Climate Change 2023

#### News Excerpt:

Ministers from the world's 46 least developed countries (LDC) issued a joint Dakar Declaration on Climate Change 2023 outlining their expectations and priorities for the 28th Conference of Parties (COP28) to the United Nations Framework Convention on Climate Change.

#### About:

- The Dakar Declaration called for urgent global emissions reductions, increased climate finance, a strong outcome operationalizing the new Loss and Damage Fund and an ambitious Global Stocktake to close the gaps in global climate action.
- The COP28 will be convened from November 30, 2023, to December 12, 2023, in Dubai, United Arab Emirates.
- While LDCs account for more than 14 % of the global population, they only account for about 1 % of emissions from fossil fuels and industrial processes, according to the ministers.
- According to the declaration, developed countries must present a clear road map for at least doubling adaptation finance delivered by 2025 through public, grant-based financing. They demanded that a New Collective Quantified Goal on Climate Finance should provide new and additional resources and should be many times greater than the current \$100 billion per year floor.

### United Nations Office for Disaster Risk Reduction Report

#### News Excerpt:

The report released by the United Nations Office for Disaster Risk Reduction (UNDRR) just ahead of the International Day for Disaster Risk Reduction stated that no progress was seen in the last decade to help people with disabilities cope with disaster,

#### Key findings of the survey:

- It was particularly alarming because it showed that the vulnerable population group had been left out of disaster management planning despite the previous survey in 2013 stressing the need for its inclusion.
- This becomes all the more important, with the world projected to face some 560 disasters every year by 2030, according to UNDRR.
- UNDRR has highlighted the importance of removing inequalities to reduce disaster risk, which refers to the probability of death, injuries or damage due to natural disasters.
- Around 16 percent of the world's people have some form of disability and are killed by disasters two-four times more often than the rest of the population.
- Some best practices:**
  - Jordan-** dedicated line for deaf individuals to report emergencies;
  - Uganda-** persons with disabilities participate in the legal frameworks on disaster and climate management.

- **New South Wales, Australia-** disability service providers identify individual requirements to feed into community emergency preparedness plans.
- The international law under the Convention on the Rights of Persons with Disabilities mandates that countries have defined mechanisms to provide safety to people with disabilities.
- The Sendai Framework for Disaster Risk Reduction 2015-2030 also called for disability inclusion, the provision of accessible disaster risk information and the establishment of inclusive and end-to-end early warning systems, UNDRR stressed.

#### United Nations Office for Disaster Risk Reduction (UNDRR)

- Created in December 1999 to ensure the implementation of the International Strategy for Disaster Reduction
- It is part of the United Nations Secretariat.
- It supports the implementation & review of the Sendai Framework for Disaster Risk Reduction adopted by the Third UN World Conference on Disaster Risk Reduction on 18 March 2015 in Sendai, Japan.
- The Sendai Framework is a 15-year voluntary people-centred approach to disaster risk reduction, succeeding the 2005-2015 Hyogo Framework.
- They called for immediate action to address these challenges and meaningful inclusion of people with disabilities in community disaster risk reduction planning.

### UN Launches 10 Principles to Close Asia-Pacific Sustainable Finance Gap

#### News Excerpt:

The UN ESCAP 2023 Report proposes 10 principles to boost financing for critical Sustainable Development Goals, focusing on bridging the gap in sustainable finance for climate action in the Asia Pacific region.

#### About UN ESCAP:

- **The Economic and Social Commission for Asia and the Pacific (ESCAP)** is an intergovernmental platform in the Asia-Pacific region.
- ESCAP is one of the 5 regional commissions of the United Nations.
- It has 53 member States and 9 associate members, including India.

#### Key Takeaways:

- With a special focus on climate action, the UN ESCAP Report presents 10 principles to mobilize and deploy financing for UN-mandated Sustainable Development Goals.
- Key Principles for Action:

- New climate finance partnerships, effective NDC financing strategies and policy coherence across key government ministries.
- Regulatory action to shift capital in the Asia Pacific towards the Net Zero transition.
- Increasing investment of time and effort with partners in project preparation and driving investments in the capacities of financial personnel and for sectoral and project-based financial data
- Net Zero pledges for 2050 with credible transition pathways, including the 2030 goals.
- Local-currency financing of energy transition projects, as well as green technologies and other net-zero investments, should be increased.
- Multilateral development banks, bilateral development financial institutions, and public development banks should accelerate concessional financing and risk-sharing.
- Only 17 of the 51 Asia-Pacific countries party to the UN Framework Convention on Climate Change have assessed and reported their financial needs for meeting their Nationally Determined Contributions.
- The average economic losses in the region from disaster-related hazards are expected to rise to \$1.1 trillion in a moderate climate-change scenario and \$1.4 trillion in a worst-case scenario.

### EU Carbon Removal Certification Framework (CRCF)

#### News Excerpt:

The European Union (EU) finalized a new draft rule banning advertisements that mislead customers with false sustainability promises to contain greenwashing.

#### Related terms:

**Greenwashing-** making false claims about the company's products or services so that they appear more sustainable than they actually are.

**Greenwashing-** wanting to be more environmentally responsible without taking any concrete actions for that.

**Greenhushing-** an organization intentionally downplaying its achievements.

#### About CRCF:

- The CRCF framework aims to scale up carbon removal activities and is critical to combat misleading green claims and ensure transparency.
- **The EU certification of carbon removals will be developed in two steps:**
  - The Commission will set up high-level quality criteria under the proposed Regulation.
  - The Commission will approve detailed certification rules for measuring, monitoring, reporting and verification of carbon removals from both industrial and nature-based activities.

**Related:**

**EU Green Deal-** It is a set of legislative proposals that attempts to put the EU on a green transitional path to achieve carbon neutrality by 2050. The new Framework contributes towards the EU's larger goals to attain net zero emissions by 2050.

**Tigers Dying in Nilgiri District****News Excerpt:**

The Nilgiri region of India has been grappling with the tragic death of 10 tigers (4 adults and 6 cubs) due to varying reasons.

**About Tigers Conservation**

- India is home to approximately **75% of the world's Tigers**.
- The number of Indian Tigers is estimated to be between 3167 to 3925 as of 2022.
- Conservation status: Endangered
- Tiger census is conducted once every 4 years.
- In 2022, the maximum number of tigers, 785, were reported to be in **Madhya Pradesh (MP), followed by Karnataka (563), Uttarakhand (560), and Maharashtra (444)**.
- The tiger abundance within the Tiger Reserve is highest in **Corbett (260), followed by Bandipur (150), Nagarhole (141), Bandhavgarh (135), Dudhwa (135), Mudumalai(114), Kanha (105), Kaziranga (104), Sundarbans (100), Tadoba (97), Sathyamangalam (85), and Pench-MP (77)**.
- There are presently **54 tiger reserves in India**.
- The latest additions to the list are:
  - 54<sup>th</sup> - Veerangana Durgavati Tiger Reserve, MP
  - 53<sup>rd</sup> - Ranipur Tiger Reserve, UP
  - 52<sup>nd</sup> - Ramgarh Vishdhari Tiger Reserve, Rajasthan
- Prime Minister Narendra Modi released the "**Status of Tigers 2022**" to mark the completion of **50 years of "Project Tiger"** in April this year.

**About Nilgiri Biosphere Reserve (NBR):**

- NBR was the first Biosphere Reserve established in 1986 and the first to be included under UNESCO's Man and Biosphere (MAB) Program.
- It is located in the Western Ghats, spanning across the states of **Tamil Nadu, Kerala, and Karnataka**.
- It falls under the biogeographic region of the Malabar rainforest.
- Protected Areas: The Mudumalai Wildlife Sanctuary, Wayanad Wildlife Sanctuary, Bandipur National Park,

Nagarhole National Park, Mukurthi National Park, Silent Valley.

**Possible Factors causing the death of Tigers in Nilgiri:**

- High density of Tigers:** NBR's Mudumalai-Bandipur-Nagarhole complex has a high density of tigers. It is pushing the existing tiger population to the surrounding habitats of Mukurthi National Park, Nilgiris and Gudalur forest divisions.
- Threat of poaching:** Four poachers from Rajasthan were arrested earlier this year; the missing of two mother tigresses indicates an alarming concern about the poaching threat.
- Starvation or infection:** According to forest officials, 6 newborn cubs 2 weeks old possibly could have died of starvation or umbilical infection.
- Injuries from fighting:** The population pressure has led to increased competition, more fights and fatalities and will cause more harmful human-animal interactions in future.
- Poisoning:** Local villagers often put poisoned meat around their habitation to get rid of tigers who prey on humans and their pets & cattle.

**Artificial Reef****News Excerpt:**

The Department of Fisheries (DoF) has sanctioned 732 Artificial Reef (AR) units for 10 coastal states with a total investment of Rs 126 crore under PMMSY for rejuvenating coastal fisheries.

**Natural Coral Reefs** are formed of colonies of coral polyps held together by calcium carbonate.

**About AR:**

They are engineering technology interventions used to rehabilitate/ improve natural habitats, increase productivity and manage aquatic resources, including habitat enhancement (FAO, 2015).

**Advantages:**

- Provide a home for fish to live and grow, reduce wave damage on coasts, help regenerate marine ecosystems and act as a carbon sink.
- Provide a firm substrate for marine life such as corals, algae and plankton.
- Provide favourable conditions for sea ranching and serve as spawning and nursery grounds for fish.



- Enhance recreational fisheries, snorkelling, eco-tourism, creating suitable areas for diving and reducing conflicts.
- Restrict bottom trawling in the near shore areas.

**Pradhan Mantri Matsya Sampada Yojana** (PMMSY) was launched in May 2020 with an investment of Rs. 20,050 crore to bring about the Blue Revolution through sustainable and responsible development of the fisheries sector.

### Forever Chemicals

#### News Excerpt:

According to a new study, the supposedly sustainable paper and bamboo straws contain potentially toxic "Forever chemicals."

#### About:

- **Polyfluoroalkyl and perfluoroalkyl substances (PFAS)** are commonly known as "forever chemicals".
- They are found in various products such as non-stick cooking pans and fast-food packaging due to their water- and fat-repellent properties.
- Their presence in plant-based straws could be due to factors like unintentional contamination from plants grown in soil polluted by PFAS and the use of recycled paper containing PFAS in the production of straws.
- **Detection:** liquid chromatography with tandem mass spectrometry and Screening Approach.

### Indian Coast Guard (ICG) Pollution-Control Vessel 'Samudra Prahari'

#### News Excerpt:

Indian Coast Guard Ship Samudra Prahari, a specialized Pollution-Control Vessel, arrived at the port of Tanjung Priok, Jakarta, Indonesia.

#### About Samudra Prahari:

- It is first in the class of three vessels, including **SAMUDRA PRAHARI, SAMUDRA PAHEREDAR and SAMUDRA PAVAK.**
- The ship has 13 NCC cadets who will participate in "Puneet Sagar Abhiyan, an international outreach programme in coordination with partner nations.
- This vessel is equipped with a Chetak Helicopter configured for Pollution Response.
- This deployment is a vital component of **India's ASEAN initiatives for Marine Pollution Response**, showcasing ICG's Pollution Response capabilities.

#### About ICG:

- **Motto:** "VAYAM RAKSHAMAH" - WE PROTECT.



- **Duties:** Safety and Protection of Artificial Islands and Offshore Terminals.
- Undertake regular patrols to keep the Offshore Development Areas (ODAs) on both the Eastern and Western seaboard under surveillance.

### Phonotaxis

#### News Excerpt:

Crickets use phonotaxis to attract mates.

#### About:

- Phonotaxis refers to the movement of an animal in response to a sound.
- It has mostly been observed among crickets, moths, frogs, toads, and other creatures.
- There are two types of phonotaxis:
  - **Positive phonotaxis-** Its main purpose is attraction. It usually happens when the females of a particular species – including those of crickets and frogs – are attracted to the sounds made by the males.
  - **Negative phonotaxis-** It serves to repel or warn, such as when the sound of a predator nearby signals to an animal that it needs to move away.

### Stratospheric Aerosol Intervention (SAI)

#### News Excerpt:

Study shows geoengineering technology called SAI may affect global food production.

#### About SAI:

SAI mimics volcanic eruptions by injecting sulphur dioxide into the stratosphere (layer of atmosphere extending from about 10 kilometres to 50 km in altitude), where it oxidizes to form sulphuric acid, which then forms reflective aerosol particles.

It is often referred to as Plan B if mitigation strategies to reduce emissions fail.

### Phosphorus Recycling

#### News Excerpt:

Phosphorus (P), which starts as a fertilizer in the Indian fields, is a part of the water cycle. But India is running out of phosphorus.

- Phosphorus is an essential ingredient in fertilizers and a major pollutant, and we need to address both issues. Phosphorus is scarce and exists only in limited quantities in certain geological formations. Not only are we running out of it, but it is also polluting the environment. It doesn't exist as a gas, which means it can only move from land to water, where it leads to algal blooms and eutrophication.

#### Phosphorus as a fertilizer:

The **low phosphorus content in Indian soils** (98% of the districts have low or medium phosphorus levels) makes



Indian agriculture heavily dependent on fertilizer imports (90%). Phosphorus-based chemical fertilizers are necessary for plant growth and development of roots. This puts a huge subsidy burden on the Indian Government.

#### Significance of Phosphorus:

- **Key macronutrient:** Phosphorus, one of the key macronutrients other than nitrogen and potassium, is an **non-substitutable nutrient in agriculture**.
- **One of the most abundant minerals in the human body:** It constitutes a key component in **human DNA and RNA**, in addition to its role in forming bones and teeth. (The right amount of both calcium and phosphorus are needed for bone health)
- **Role in plant's life cycle:** Its uptake from the soil is critical for plant **growth, reproduction, energy production, photosynthesis, and other activities in the plant's life cycle.**
- **Acts as a limiting factor:** Phosphorus deficiency in the soil **causes the lesser dry weight** of the parts of the plant as well as hampers the uptake of other minerals, like nitrogen, thus acting as a limiting nutrient for plant growth.
- **Linkage between phosphorus and food security:** The scientific community has long established the linkage between phosphorus and food security. With India's **high rates of malnutrition, stunting and underweight**, it has become important to ensure enhanced agricultural productivity.

**Limiting factor in plant growth:** The available quantity of this nutrient controls the pace at which fruits and flowers are produced.

#### Phosphorus regions found across the globe:

Only a handful of countries control most of the world's phosphorus reserves. This is a major geopolitical concern. The world's largest reserves are in **Morocco and the Western Sahara region**. But here also, phosphorus **coexists with cadmium**, a heavy metal that can accumulate in animal and human kidneys when ingested. **Removing cadmium is also an expensive process.** Only six countries are known to have substantial cadmium-free phosphorous reserves, which makes it extremely valuable.

#### Phosphorus as a pollutant:

- **Excessive application of fertilizers:** Only about a fifth of the phosphorus mined is consumed through food. Much of it is **lost directly to water bodies as agricultural run-off** due to the excessive application of fertilizers.
- **Untreated sewage in India:** Most of the phosphorus that people consume ends up in sewage. Even if the organic matter is digested, the effluent discharged

from Sewage Treatment Plants (STPs) still contains nitrates and phosphates. Of these, nitrates can be digested by denitrifying bacteria and released safely as nitrogen gas, while phosphorus **remains trapped in the sediments and water column.**

- **Algal blooms:** The phosphorus in the water bodies is absorbed by the algal blooms that grow in response to the high nutrient supply, and when they decompose, the bacteria that feed on them consume **the dissolved oxygen**. As a result, **water bodies become oxygen-starved**, leading to **fish deaths**. The algal blooms are also **toxic, causing respiratory issues, nausea**, and other ailments to people exposed to them.

#### Is mining urban sewage the answer to the phosphorus crisis?

- Increasing interest is in closing the phosphorous loop by mining urban sewage to produce high-quality phosphorus. Interest in '**circular water economies**' has prompted the **European Union** – which has almost no phosphorus reserves – to rethink the urban water cycle.

#### Sewage recycling already occurs in some form in India today, such as:

- Nutrient-rich wastewater is applied directly to agriculture at the **KC Valley-Kolar project**, which transports Bengaluru's wastewater to the water-scarce regions of Kolar. However, **there are concerns** that the quantity of nutrients may be **too high and eventually degrade the soil**.
- Similarly, in many cities and towns, farmers already remove the sludge from STPs, but it is **bulky to transport**.

#### Way Forward:

Reducing phosphorus waste, increasing phosphorus recycling, and wider system transformation can reduce national reliance on imported phosphorus whilst enhancing food and water security. India needs to upscale its research programs on phosphorus through apt policy interventions, like working towards finding an answer through sewage recycling and phosphorous mining.

#### PEPPER IT WITH:

Chemical Pollution,  
Nitrogen Pollution,  
Stockholm Convention

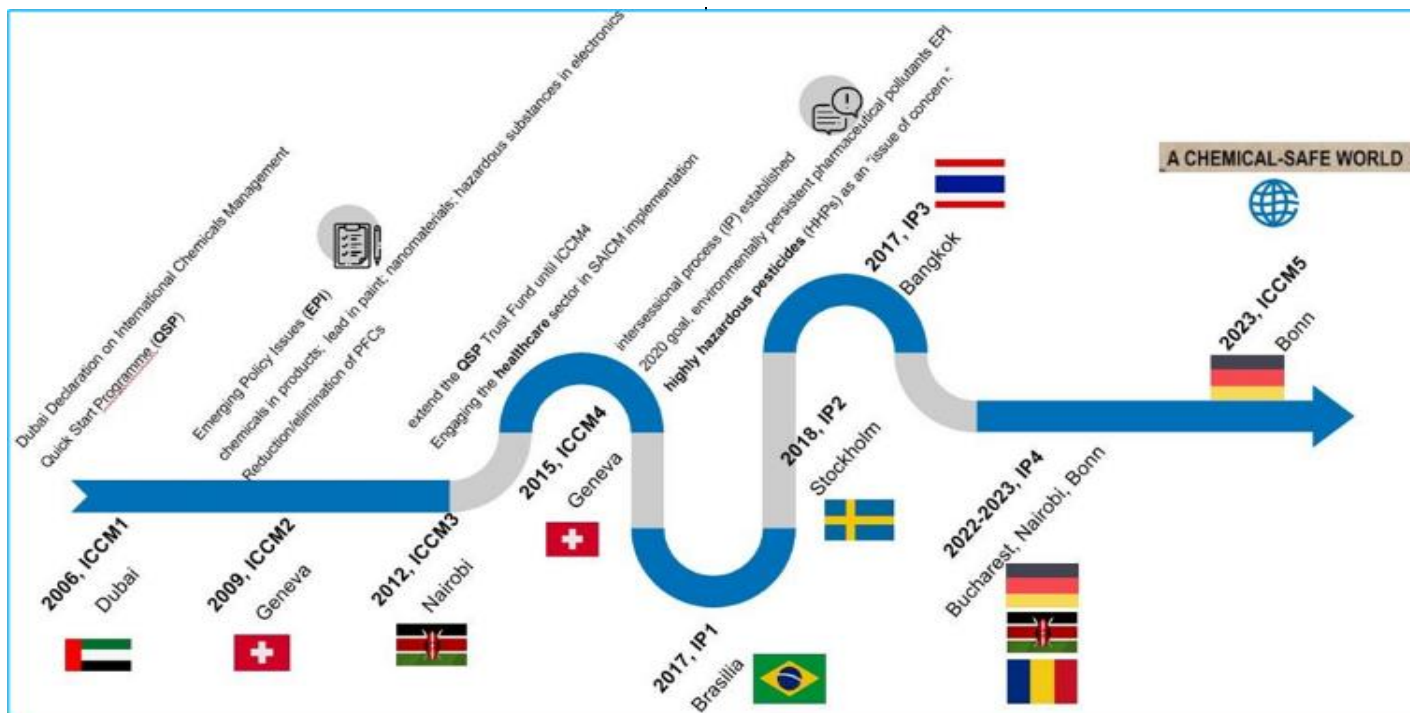
#### Global Framework on Chemicals

##### News Excerpt:

Recently, Delegates at the **UN Bonn summit**, held in Germany, adopted a **new framework to reduce risks from hazardous chemicals**.

##### About the Global Framework on Chemicals:

- The "Global Framework on Chemicals" was officially adopted by the fifth International Conference on Chemicals Management (ICCM5) for the integrated management of chemicals and waste after 2020.



- This Framework provides a vision for a planet free of harm from chemicals and waste.
- It is an important part of the wider tapestry of agreements, such as the Sustainable Development Goals, the Kunming-Montreal Global Biodiversity Framework and the Global Treaty on plastic pollution under negotiation.
- The Framework is based on 28 targets. (There is a target on strengthening links between the new instrument and the Climate, biodiversity, human rights and health agendas).
- The Framework aims to phase out lethal agricultural pesticides by 2035.
- It also encourages countries to support the transition to circular economies and to develop substitutes for chemicals.

#### ABOUT ICCM5

- Organized by UNEP.
- It is hosted by the Government of Germany, which holds the presidency of this fifth session of the Conference.
- The International Conference on Chemicals Management (ICCM) is responsible for guiding and monitoring the Strategic Approach to International Chemicals Management (SAICM)

#### SAICM:

SAICM is a global multi-sectoral, multi-stakeholder, and voluntary policy framework. It offers a forum to discuss and address the challenges related to the adoption and implementation of national policies to safely manage chemicals.

#### Need for this new Framework:

- The World Health Organization (WHO) tells us that direct chemical pollution of the air, land, water and workplace is causing **two million deaths per year**. This calls for urgency for such a framework.
- Improper management of chemicals and waste leads to negative impacts on human health, Climate, environment, and biodiversity and threatens socio-economic development and prosperity.

#### Discharge of Mining Waste into Rivers

##### News Excerpt:

A recent study, has unveiled groundbreaking research on the far-reaching consequences of metal mining pollution in rivers and floodplains worldwide.

##### Key observations:

- The number of people exposed to pollution originating from the continuous discharge of mining waste into rivers is nearly 50 times higher than those immediately affected by incidents of tailings dam (embankment used to store byproducts of mining) failures.
- Around 23.48 million people inhabit the impacted floodplains, sustaining a population of 5.72 million livestock and covering an expansive area of over 65,000 square kilometres of irrigated land.
- The study assessed potentially detrimental substances like lead, zinc, copper and arsenic.
  - These hazardous elements are frequently carried downstream from mining sites and

tend to accumulate over extended durations within river courses and floodplains.

- Rapid growth in global metal mining is crucial if the world transitions to green energy.

**Strategic Objective A:** Legal Framework, institutional Mechanism and Capacity.

**Strategic Objective B:** Comprehensive and Sufficient knowledge, data and information.

**Strategic Objective C:** Issues of concern are identified, prioritized and addressed.

**Strategic Objective D:** Safer alternatives and innovative and sustainable solutions.

### High Levels of Toxic Heavy Metals

#### News Excerpt:

Recently, High levels of cancer-causing heavy metals such as lead and chromium have been found in eight wetlands in Odisha, including Hiraikud. The Hiraikud reservoir is one of the largest human-made reservoirs in India.

#### Key findings:

- In the modern world, anthropogenic activities such as urbanization, industrialization and agricultural practices deposit heavy metals in wetlands, which act as heavy metal sinks.
- They recorded the highest concentrations of lead and chromium.
- They found the highest concentration of copper at the Bhadrak site. Koraput showed a higher abundance of zinc.
- All the sites, according to the findings, had a higher concentration of chromium than other studies had previously shown.
- As for carcinogenic risk, Hiraikud topped the list among adults and children. "Industrial development in the study area poses carcinogenic effects due to the addition of heavy metals in soil from the effluents.
- They selected eight wetlands: Natural ones such as Chandaneswar, Chilika, Daringbadi and Koraput, and constructed ones like Bhadrak, Hiraikud, Talcher and Titlagarh.

#### Impact of such pollution:

- Heavy metal pollutants commonly accumulating in wetlands due to human activity include lead, chromium, cadmium, copper, mercury, nickel, zinc, manganese and arsenic. These metals can enter crops through the soil, which humans then consume.
  - The heavy metals can also enter the environment indirectly through the food chain.
- The researchers also calculated the ecological risk posed by heavy metal accumulation. The ecological

risk index measures the potential ecological risk (RI) factor of all metals tested together.

- **The highest RI was found in Hiraikud, followed by Talcher, Bhadrak, Titlagarh, Chilika, Chandaneswar, Koraput and Daringbadi.**
- Besides, the western part of the study area is a hub for rice production. The contamination either happens through contaminated soils or the use of pesticides.
- Previous studies have shown that the health of the local community is at risk if they consume rice contaminated with heavy metals.
  - "This could be one of the reasons for the increasingly higher number of cancer patients in the particular region of the study area, which is supported by previous studies," the researchers stated.

#### Importance of the study:

- The findings of the paper could help frame successful policies and raise awareness.
- It warns the world about the heavy metal pollution so that they can be ready to act in time.

### Great Barrier Reef suffer groundwater pollution: Study

#### News Excerpt:

Scientists have revealed that substantial pollution infiltrates the Great Barrier Reef through underground water sources.

#### About:

- Nearly 1/3<sup>rd</sup> of dissolved inorganic nitrogen and 2/3<sup>rd</sup> of dissolved inorganic phosphorus in the waters surrounding the Great Barrier Reef originate from underground sources.
- Researchers collected water samples and analyzed them for radium isotopes, which serve as markers for pollution.
- Too much nutrient can lead to losses of coral biodiversity and coverage.
- It also increases the abundance of algae and the ability of coral larvae to grow into adult coral. This impacts seagrass coverage and health, crucial for fisheries and biodiversity.
- The current efforts to preserve and restore the reef's health may require a new perspective.
  - Better land management practices to ensure fewer nutrients enter groundwater aquifers.
  - Use of ecological and hydrological practices at groundwater discharge hotspots.
- Re-use nutrient-rich groundwater for agricultural use can be explored.

## SCIENCE & TECHNOLOGY

### Bhartiya Space Station and Space Vision

#### News Excerpt:

Recently, the visionary roadmap for ISRO was charted during a review meeting. It discussed the upcoming Gaganyaan mission, on track for 2025.

- It also targets Bhartiya Space Station by 2035, and an Indian on moon by 2040.



2040.

#### Gaganyaan mission:

- It envisages a demonstration of human spaceflight capability by launching a crew of 3 members to an orbit of 400 km for 3 days in a space mission and bringing them back safely to Earth, by landing in Indian sea waters.
- The prerequisites for the Gaganyaan mission include the development of many critical technologies like a human-rated launch vehicle, a Life Support System, crew emergency escape provision etc.

#### What is the Vision for 2040?

- Vision 2040 is designed by the Department of Space to land an Indian astronaut (Gaganauts) on the Moon.
- This will encompass Chandrayaan missions, developing a Next Generation Launch Vehicle (NGLV), constructing a new launch pad, setting up human-centric laboratories, and associated technologies.
- The Prime Minister has also urged Indian scientists to expand their horizons by working on interplanetary missions such as Venus Orbital Mission (Shukrayaan) and Mars Lander.

#### ISRO's upcoming move:

- Along with the Bharatiya Space Station (BSS), ISRO also plans to send an Indian to the Moon by 2040.

#### How were the previous Space Stations built?

- The space station is the place that allows astronauts to live and work for long durations in space.
- In 1984, NASA scientists started with the building blocks of the station, which were transported to space in several missions and it became a reality in 2000, not as a NASA project but as a collaborative venture of America, Russia, Japan, Canada, and the European Space Agency. That's how the International Space Station (ISS) was born.
- China was kept out of ISS because of domestic American laws that prohibited NASA from direct collaboration with the Chinese. To build its space station, China first had to master human space flights. In 2003, the first Chinese astronaut went to space. Now, the Chinese Space Station 'Tiangong- or Heavenly Palace' in Chinese is in orbit.

#### Morality Compass:

- Prime Minister of India's statement, "**The success of Chandrayaan 3 is not just India's alone but it belongs to all of humanity**", was wise and responsible. India, now, should not be engaged in outer space hegemonies but move ethically towards a larger goal.
- We can now take the initiative to craft a declaration of the fundamental rights of outer space. And thereby inaugurate a **new ethics for human activity in outer space**, including the Earth's responsibilities towards outer space debris.

This new ethics must make the non-militarisation of outer space a non-negotiable covenant. Space advancements must come with a **moral compass attached to safeguard a common heritage of the whole space.**

#### What are the challenges associated with the upcoming Space Vision - 2035?

While India continues to grow leaps and bounds beyond the planet's boundaries, the challenges are immense to make the 2035 target a reality.

- Need of New Technology:** India has shown its prowess in satellite development, but constructing and maintaining a space station requires a completely different set of skills. It involves life support systems, radiation protection, and long-term structural integrity.
- Budget allocation by Government:** The financial aspect is perhaps the most significant hurdle. A space station is a costly endeavour, and India must secure a substantial budget. Financial constraints could potentially limit the pace of the project and the range of experiments it can accommodate.



- **Expertise in Human spaceflight:** While India has achieved significant success with robotic missions, it still needs to gain experience in human spaceflight. To build and operate a space station, a well-trained team of astronauts is indispensable.

#### Way forward:

- **International Cooperation:**

India's space station project should also be seen in the context of international

#### PEPPER IT WITH:

International Space Station, IN-SPACe, ISRO, BISAG-N, New Space India Limited (NSIL), Cooperation between different space agencies.

cooperation. Collaboration with established space-faring nations such as US, Japan and Europe can provide valuable insights and reduce costs. Establishing partnerships, especially with nations possessing space station experience, can be mutually beneficial regarding knowledge sharing and resource sharing.

- **Geopolitical Implications:** India's space station project could lead to concerns from other nations, which might view it as a strategic move. India must navigate diplomatic waters carefully to ensure that its space station ambitions do not lead to conflict or regional tensions.

## Quantum Engine

### News Excerpt

Recently, German physicists have developed a method to transform the energy difference between two quantum states of an atom group into work. It will potentially help develop more effective quantum computers by applying the principles of the well-known classical engine to the subatomic world.

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### Pauli's principle

- According to Pauli's principle, all subatomic particles can be classified as either fermions or bosons.
- The fundamental units of matter are fermions, while bosons are the particles that carry the forces that interact with them.
- Four quantum numbers, which resemble an individual particle's Aadhaar number, are used to identify all particles in a system.
  - The sum of the four numbers provides information on the energy level of a particle.

### Quantum Engine

The **quantum** engine, or what the researchers are calling a 'Pauli engine', has a similar set of four steps.

**Third:** The compression applied in the first step is eased.

**First:** The atoms collected in the trap are compressed and kept in a bosonic state.

**Second:** The strength of a magnetic field applied on the atoms is increased by a small amount. Interactions between the atoms and the field cause the former to slip into a fermionic state: they are forced to move out of the lowest energy level and progressively occupy higher levels.

**Fourth:** The magnetic field strength is reduced to its original value.

- According to the exclusion principle, no two particles in a given system can have the same four quantum numbers, meaning they can't be at the same energy level.
- This law applies to fermions specifically. As a result, they repeatedly occupy the lowest one until all potential energy levels are occupied.
- The exclusion principle does not apply to bosons, which can all occupy the same lowest energy level at a specific low temperature. This explains how phenomena like superconductivity are feasible.
- The fundamental idea is that a system of fermions will have more energy than a system of bosons at a specific temperature.

### Quantum Thermodynamics

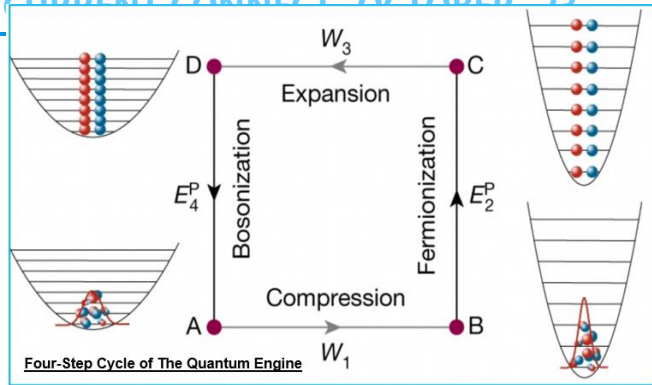
Quantum thermodynamics is a branch of physics that focuses on how thermodynamics "emerges" in quantum-physical systems.

**Pauli's Principle-** In a single atom, two electrons will not have a similar quantum number.

**Quantum number-** It defines the position and energy of an electron in an atom.

### Work process of a Quantum Engine

- Classical engines convert heat into work.
- For example, the heat produced by the burning of petrol or diesel propels a piston in an internal combustion engine. Overall, the engine has four steps:
  - The fuel is compressed
  - the expansion of the fuel-air mixture brought on by ignition forces the piston out
  - the mix cools and stops expanding.
  - In the last step, the piston is brought back to the initial state.



### Efficiency of Quantum Engine

- The quantum engine's effectiveness is determined by how much more energy is released in the third step compared to the energy added to the system in the first.
- The third step increases atomic energy, which can be used to create work.
- Currently, according to the researchers' paper published in Nature, the quantum engine is 25% efficient.
- The researchers expect to increase this to 50% or more in the future.

### Quantum engine as proof of concept:

- The quantum engine is still in the process to see if the idea is feasible.
- By switching between bosonic and fermionic states, the researchers have shown that their design can be used to force a group of atoms to release energy in cycles.
- The scientists must determine how to transfer this energy from the interior of the trap to a device outside.

#### PEPPER IT WITH:

Quantum Computing, Supercomputers, Machine Learning, Internet of Things, Data Science and Analysis.

### Importance of Quantum engine:

- The application of this discovery to the construction of more effective quantum computers has the potential to advance our understanding of quantum thermodynamics.
- Quantum engines could be important in cooling the particles used in quantum computers. Quantum computers need extremely low temperatures to operate effectively, and the quantum engine could potentially serve as a cooling medium for these particles.
- It will open up new possibilities for studying quantum thermodynamics and its implications for other fields of physics.

## How can gravity solve green power's problem?

### News Excerpt:

Gravity batteries are emerging as the best bet in solving renewable energy's biggest problem – **intermittency** (to balance out the variability in demand and supply of electricity).

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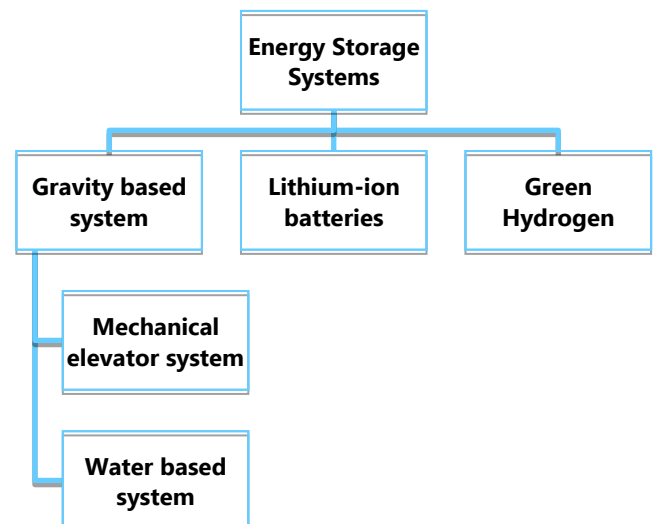
After the **USA & China**, an energy company is in talks with **Indian firms** offering to deploy **gravity-based storage** that could be installed alongside green power generation generated through renewable power.

### Need for Energy storage systems:

- Unlike **thermal plants** powered by fossil fuels that can operate **day and night**, renewable sources like the **sun and the wind** are **intermittent**, and the power generation drops or, worse stops on a **cloudy** or **wind-lull day**.
- The reliance on renewables for consistent power is, therefore, only possible with energy storage.

### Gravity batteries vs Lithium-ion batteries:

- Gravity batteries are not the only way to store renewable energy. **Lithium-ion batteries** and **Green Hydrogen** are other options, but gravity storage has many advantages over them.
- Gravity storage is **free**, **easily accessible**, and **environmentally friendly**. Gravity batteries last longer, up to 50 years, and are **highly repairable**.
- Lithium-ion batteries **degrade** over time, are more **expensive**, and are associated with **human rights abuses** and **environmental damage**.
- As decarbonization efforts increase, the demand for more durable and efficient energy storage systems will increase. While **lithium-ion batteries** are useful for **short-term energy storage**, gravity batteries are better suited for long-term storage.



### What is Gravity-based energy storage?

It depends on the vertical movement of a heavy object in a gravitational field to store or release electricity. This technology accomplishes energy storage by converting the electrical energy in the power system to the gravitational potential energy of the weight through electromechanical equipment. There are two types of GBES.

#### 1. Mechanical Elevator Storage System:

- It is a type of electricity storage device that involves lifting (charging) and lowering (discharging) a heavyweight.
- The platform **utilizes gravity** and a **mechanical elevator system** to stack **25-tonne blocks** made of composite material at the top of a **towering structure**.
- It mimics the broad attributes of a pumped hydroelectric plant, which uses moving water to store and discharge power.
- When the electricity **demand** is **low**, the elevator uses **surplus electricity** already generated to raise these blocks and line them up at the **top** of the structure.
- When electricity demand picks up, the blocks are lowered one by one, **releasing kinetic energy** used to rotate a motor and generate electricity, which can then be supplied.
- This would mean one could **store power** captured by a **solar farm** during the **day** when the sun is shining and then **release** that electricity to the grid in the **evening** when **demand rises** because people are at home using electricity to watch TV, cook, and heat their homes.

#### 2. Water-Based Gravity Systems:

- Pumped hydro is an established technology responsible for about **96%** of the world's high-capacity **energy storage**, according to the **International Hydropower Association**.
- In this, **excess energy** on the grid is used to **pump water uphill** to a **high-elevation reservoir**. When there is **energy demand**, the water is released, driving a **turbine** as it flows into a reservoir below.
- However, these facilities are **expensive** to build and are **restricted by geography**, as the technology requires hills and access to water.

#### Indian Perspective:

- India's push for deployment of large-scale renewable power makes storage a **prerequisite** to support this expansion.
- As per the updated India's Nationally Determined Contribution (**INDC**), India is committed to reducing the emissions intensity of its GDP by 45% by 2030 from the 2005 level and achieving about 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.

- India, in its **PANCHAMRIT PLEDGES** of climate change (Five Nectar Elements), is determined to become net zero by 2070.
- The Indian government now plans to accept bids for a **100MW** round-the-clock clean **energy system with storage**. **National Hydrogen policy** was already cleared by the cabinet last year to increase green hydrogen production.
- The Union Power Ministry has finished **surveying pumped hydro sites** and tasked hydro PSUs with taking up pumped hydro schemes. There is also a proposal to consider **opencast mines** as **potential sites** for pumped hydro.
- The **World Economic Forum (WEF)** founded the Global Battery Alliance (**GBA**) in 2017 to establish a sustainable battery **supply chain** by 2030.
  - GBA is a body of over 100 leading international organizations, NGOs, industry actors, academics, and multiple governments.
  - It started working independently from WEF in 2021, and its membership is collectively working towards the goals set out in the **GBA 2030 Vision**.

#### Way forward:

- As India is a major producer of renewable energy, with **nearly 40%** of its **installed electricity capacity** coming from **non-fossil** fuel sources.
- The government should explore other options, such as **hydrogen** and **hybrid generation models** that are combined with off-stream pumped storage.
- It would be beneficial to use full-scale **energy storage** in **former mines**, which can take **advantage** of existing **infrastructure** and **generate jobs** in the areas where they are most needed.

#### PEPPER IT WITH:

Global Battery Alliance, Lithium Ion Technology, PanchAmrit Pledges of AmritKaal, Uses of Potential and Kinetic Energy, Renewable Sources of Energy

### Nobel Prize for Chemistry 2023

#### News Excerpt:

The 2023 Nobel Prize in Chemistry has been awarded to **Moungi G. Bawendi, Louis E. Brus** and **Alexei I. Ekimov** for the discovery and synthesis of **quantum dots**.

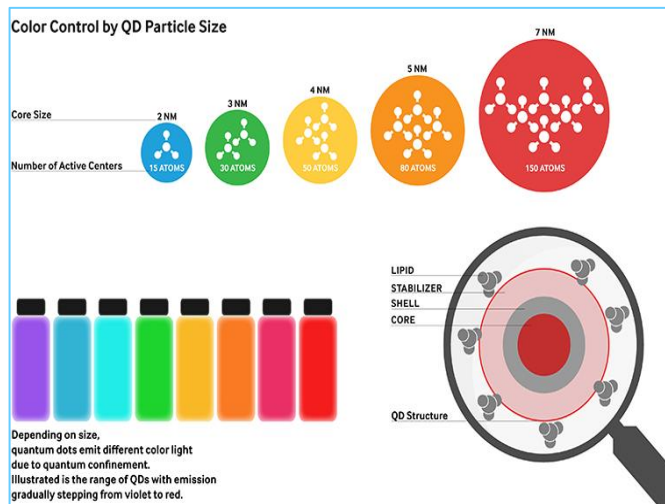
#### Quantum dots:

- Quantum dots (QDs) are **man-made nanoscale crystals** that exhibit unique optical and electronic properties, including the ability to transport electrons

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and emit light of various colors when exposed to UV light.

- QDs are a really small assembly of atoms (just a few thousand) around a few nanometres wide. The 'quantum' in its name comes from the fact that the electrons in these atoms have very little space to move around, so the crystal as a whole displays the quirky effects of quantum mechanics.
- Quantum dots have also been called '**artificial atoms**' because the dot as a whole behaves like an atom in some circumstances.



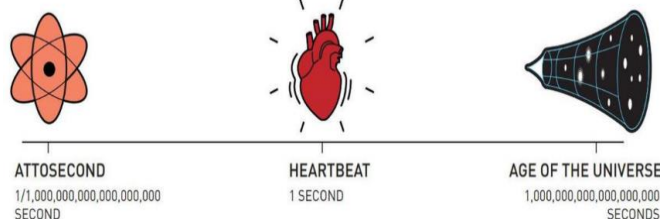
#### Reasons for interest in quantum dots:

- There are two broad types of materials: atomic and bulk. Atomic refers to individual atoms and their specific properties. Bulk refers to large assemblies of atoms and molecules.
- Quantum dots lie somewhere in between and behave in ways that neither atoms nor bulk materials do. One particular behavior distinguishes them: **the properties such as Melting Point and chemical reactivity of a quantum dot change based on how big it is.**
- Just by tweaking its size, scientists can change, say, the quantum dot's melting point or how readily it participates in a chemical reaction.
- When light shines on a quantum dot, it absorbs and then re-emits it at a different frequency. Smaller dots emit blueish light and larger dots, redder light. This happens because light shone on the dot energizes some electrons to jump from one energy level to a higher one, before jumping back down and releasing the energy at a different frequency.

#### Applications of quantum dots:

- If one of the energy levels an electron jumps between in a quantum-dot atom is the conduction band, the dot can operate like a **semiconductor**.
- Solar cells when made with quantum dots are expected to have a thermodynamic efficiency as high as 66%.

- Quantum dots have unique properties and spread their light from **television screens and LED lamps**.
- They **catalyze chemical reactions**, and their clear light can illuminate **tumour tissue for a surgeon**.
- Researchers have primarily utilized quantum dots to create coloured light. They believe that in the future, quantum dots can contribute to **flexible electronics, miniscule sensors, slimmer solar cells, and**



#### encrypted quantum communication.

- Quantum dots can be easily adapted for a variety of applications, **including surgical oncology, advanced electronics, and quantum computing.**

### Nobel Prize for Physics 2023

#### News Excerpt:

The 2023 Nobel Prize for Physics was shared by three scientists - **Pierre Agostini, Ferenc Krausz and Anne L'Huillier** - for their experimental methods that generate **attosecond pulses** for the study of **electron dynamics** in matter, potentially leading to better detection of disease and developing electronic machinery.

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#### PEPPER IT WITH:

Quantum Computing, AI, Structure of an Atom, Electromagnetic Spectrum

#### About their experiment:

- An atom, a tiny unit into which matter can be divided, is composed of a nucleus of protons and neutrons and electrons that travel around this nucleus. Electrons move so fast that it is impossible to observe them in real-time.
- Their work has brought humanity closer to observing and studying the movement of electrons by producing pulses of light that last only attoseconds, which is  $1 \times 10^{-18}$  of a second.
- Roughly, this can be compared to a high-shutter-speed camera. If a regular camera is used to capture a moving train, the image will be blurred. But a high shutter-speed camera can freeze motion and capture a clear image of the train.



**Electron dynamics:**

- Electrons are the negatively charged particles of an atom. They travel around the denser nucleus in orbits.
- The movement of an atom in a molecule can be studied with the short pulses produced by a laser. These movements and changes in the atoms occur on the order of femtoseconds—a millionth of a billionth of a second. But electrons are lighter and interact faster in the attosecond realm. An attosecond is a billionth of a billionth of a second.

**Attosecond science:**

- It is a branch of strong field physics.
- Strong field physics: it is a research field of laser matter interaction which aims to induce & control ultrafast processes.
- It helps reveal ultrafast phenomena in nature in unprecedented clarity.
- Attosecond ( $10^{-18}$  s) is the characteristic time scale for ultrafast electron dynamics in atoms, molecules, and solids.

**PEPPER IT WITH:**

Cancer Therapies,  
Spectroscopy, IV  
Diagnostic Techniques

**Significance of attosecond physics:**

- For medical diagnostics**, attosecond pulses can be used to check for the presence of cancer and find therapies for it
- It could also be used to develop faster electronic devices and better telecommunications, imaging, and spectroscopy.
- It also holds promise in areas such as a new **in-vitro diagnostic technique** to detect characteristic molecular traces of diseases in blood samples.
- The investigation of electron transition or ionization in solids and nanostructures may bring radical improvement in communications and computing.

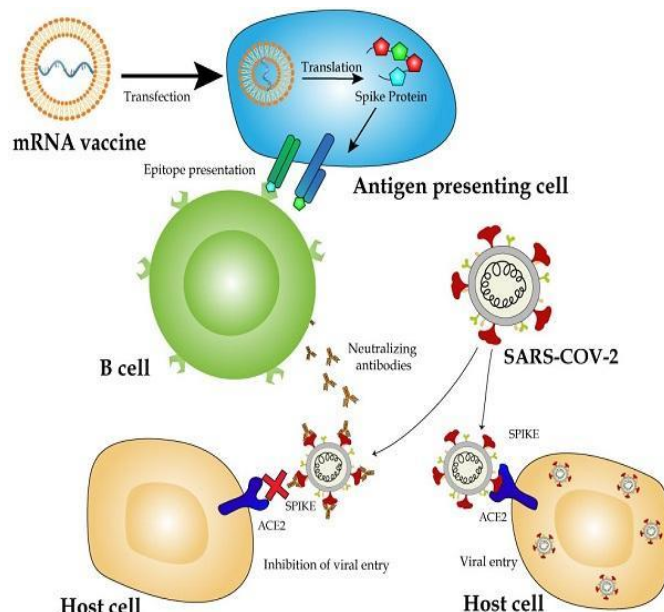
**Nobel Prize in Medicine 2023****News Excerpt:**

The 2023 Nobel Prize in Physiology or Medicine has been awarded to **Katalin Karikó** and **Drew Weissman** for their "discoveries concerning **nucleoside base modifications** that enabled the development of effective **mRNA vaccines** against COVID-19".

**Findings of their discovery:**

- Kariko and Weissman realized that the immune system recognized the lab-developed mRNA molecules as foreign substances, leading to inflammatory reactions.
- However, this did not happen when mRNA derived from animal cell assays were used. This led them to look for properties in the lab-developed mRNA molecules that were tripping off the immune system.

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- They found that the mRNA derived from the animal cell assays frequently contained modifications not seen in the lab-developed uniform mRNA molecules.
- Their discoveries have allowed the covid-19 vaccine to be produced at lighting speed in 2020

**Vaccines available before the pandemic:**

- The first one** includes a live, attenuated vaccine, which has a weakened version of the pathogen, like the oral polio vaccine.
- The second type** involves an inactivated vaccine that uses killed pathogens to elicit an immune response, such as the rabies vaccine.
- With the progress of molecular biology and techniques to edit genetic codes, vaccines using small, non-lethal parts of the pathogen have been developed. These are called **sub-unit vaccines**.
- Some vaccines also encode these non-lethal parts to another pathogen that carries and distributes it through the body - an example of this was the AstraZeneca vaccine available in India as Covishield that used parts of the COVID-19 virus attached to an adenovirus. These are called **vector vaccines**.

**Challenges to mRNA technology before the pandemic:**

- The lab-based mRNA molecules were considered unstable and challenging to deliver into the body in addition to the inflammatory responses.
- Developing efficient fat molecules to carry the mRNA inside the body was the key to the development of the vaccines.

**Advantages of mRNA technology as compared to other vaccines:**

- Not only are nucleic acid-based vaccines easy to manufacture, but they are also flexible since the sequence can be easily modified for different pathogens.

- In the future, the technology may also be used to deliver therapeutic proteins and treat some cancer types.
- mRNA technology also could produce proteins missing in certain diseases like cystic fibrosis, sickle cell anaemia, or diabetes.

#### mRNA Vaccines:

- mRNA, which stands for **messenger RNA**, is a form of nucleic acid that carries genetic information.
- Like other vaccines, the mRNA vaccine also attempts to activate the immune system to produce antibodies that help counter an infection from a live virus.
- mRNA vaccines introduce a piece of the genetic material that corresponds to a viral protein.
- This protein is usually found on the virus's membrane and is called **spike protein**. Therefore, the mRNA vaccine does not expose individuals to the virus itself.

#### PEPPER IT WITH:

Antigen, Antibody,  
Translation,  
Transcription,  
Transfection, Protein

### PRE-SHOTS

#### Cholera cases double: WHO

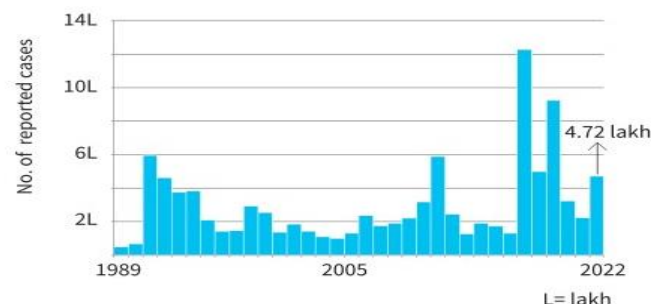
##### News Excerpt:

Since the beginning of the year and as of 15 September 2023, at least 29 countries have reported cholera, according to the World Health Organization (WHO).

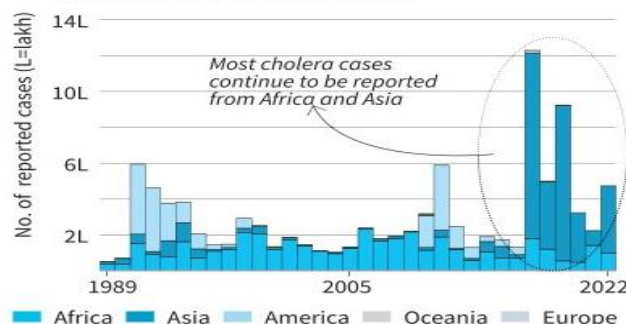
##### About the Report:

- According to the 2022 Global Cholera annual report published in 2023, Globally, the number of cholera cases reported to WHO more than doubled, from 22,33,70 cases reported in 2021 to 47,26,97 cases in 2022.
- In terms of mortality, 2349 **cholera-associated deaths** were reported to WHO globally in 2022 with a **case-fatality rate (CFR)** of 0.5% (**1.9% in Africa**).
- In 2022, several countries that had **not reported cholera** in many years reported large outbreaks, including Lebanon and Syria.
- In addition, seven countries reported very large outbreaks (> 10,000 cases), more than double the number of countries reporting these outbreaks in the past three years.

**Chart 1** | The chart shows year-wise reported cholera cases between 1989 and 2022



**Chart 2** | The chart shows year-wise cholera cases reported to WHO across continents



#### About Cholera:

- Cholera is an acute intestinal infection caused by the bacterium ***Vibrio cholerae***, which spreads through food and water contaminated with faeces.
- **Primary causes of the 2023 cholera outbreak:**
  - The recent outbreak of cholera is a result mainly due to **extreme weather events linked to climate change, conflict, population displacement, and weakened healthcare systems**.
  - The WHO has also said that the increased demand for cholera materials has forced cholera outbreak programs to **use a single-dose vaccination regimen as opposed to the standard two-dose regimen**.

#### Key Challenges:

The geographical spread and global surge in cases has resulted in numerous challenges:

- Constrained **availability of critical cholera supplies**, including case management materials and kits.
- **Insufficient Oral Cholera Vaccine (OCV) stock** to respond to all concurrent cholera outbreaks, with OCV shortage leading to suspension of preventive campaigns and change from a two-dose to a one-dose strategy.
- **National cholera emergency response capacities** are exhausted and overstretched due to numerous parallel large-scale and high-risk outbreaks.

- **Other challenges include:**
  - Limited experienced staff.
  - Inadequate financial and material resources

### ICMR Conducts the Truenat Test

#### News Excerpt:

Recently, the Indian Council for Medical Research (ICMR) allowed the Kerala government to detect Nipah with the help of the Truenat Test.

#### About the Truenat Test

- Truenat is a chip-based, point-of-care, rapid molecular test for **diagnosis of infectious diseases**.
- The technology is based on the Taqman **RT-PCR (Real Time Reverse Transcription Polymerase Chain Reaction)** chemistry, which can be performed on the portable, battery-operated Truelab Real Time micro-PCR platform.
- Truenat tests showed 99% specificity against sputum microscopy.

**RT-PCR** is the mRNA (messenger RNA) detection and quantification technique to produce or multiply copies of DNA in a chain form.

#### Applications:

- To quantify mRNA levels in smaller samples.
- To enable quantization of RNA from a single cell.
- Used during the coronavirus outbreak.
- **About Nipah:** It is a zoonotic virus that can be transmitted through contaminated food or directly between people. In infected people, it causes a range of illnesses, from asymptomatic infection to acute respiratory diseases, even leading to fatalities in some cases.
- **About ICMR:** The Indian Council of Medical Research (ICMR) is the apex body in India for the formulation, coordination, and promotion of biomedical research and is one of the oldest medical research bodies in the world.

### Disease X- 20 times deadlier than Covid

#### News Excerpt:

UK healthcare professionals are preparing for a potential new pandemic known as 'Disease X,' which could be 20 times more deadly than COVID-19

#### What is Disease X?

- According to the WHO, Disease X could be a new agent, a virus, a bacterium, or a fungus without any known treatment.
- It is included to indicate an unknown pathogen that could cause a serious international epidemic.

- WHO mentioned Disease X history, for the **first time in 2018**, as an unknown disease that has epidemic potential.
- **Major Concern:** The number of potential pathogens is very large, while the resource for disease research and development (R&D) is limited.

#### What are Priority Diseases?

- **Priority Diseases are those** which pose the greatest public health risk due to their epidemic potential and/or whether there are no or insufficient countermeasures. The **WHO** has included Disease X in the list of its "**priority diseases**."

#### The Priority List of Diseases for WHO are:

- COVID-19
- Crimean-Congo Haemorrhagic fever
- Ebola Virus disease and Marburg Virus Disease
- Lassa fever
- Middle East respiratory syndrome
- Coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS)
- Nipah and Hendra viral diseases
- Rift Valley fever
- Zika Virus
- Disease X

### Galactic Tide

#### News Excerpt:

Like the Earth's oceans at their shores, the universe's galaxies also experience tides, but on a much larger scale.

#### About Galactic tides:

- They are caused by gravitational forces within a galaxy, arising in the interactions between celestial objects like stars and gas clouds.

#### Effects:

- They can reshape a galaxy structure by creating tidal tails and bridges, promoting star formation, and disrupting smaller star systems.
- This disruption leads to long-term changes in galactic structure.
- They determine how proximate galaxies and supermassive black holes interact.

### Asteroid Benu

#### News Excerpt:

Recently, OSIRIS-Rex (NASA's mission) collected around 250 grams of rocks and dust samples from asteroid Benu.

#### About asteroid Benu:

- Benu is an asteroid orbiting the sun (with a period of 436 days) such that it comes relatively close to the Earth once every six years.

- It is a **carbonaceous asteroid** that settled into its present form and composition within 10 million years after the solar system's formation, surviving the last 4.5 billion years nearly intact.
- The 'leftover' pieces of debris are expected to reveal the solar system's ingredients.
- As Bennu could smash into the Earth between 2178 and 2290, studying it could inform ways to prevent this collision.

### OSIRIS-REx (Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer):

- Launched by NASA in 2016. Two years later, scientists worked to place it into orbit around Bennu at an altitude of just 2 km.
- In 2020, OSIRIS-REx landed just long enough to grab a sample of the asteroid from a pre-identified spot before flying back up.
- In May 2021, it began its long journey back to Earth.

### NavIC-based IST traceable Primary Reference Time Clock

#### News Excerpt:

The **Centre for Development of Telematics (C-DOT)** and **CSIR-National Physical Laboratory (NPL)** signed an agreement for the 'Development of NavIC-based IST traceable Primary Reference Time Clock (PRTC) for Telecom Sector'.

**Aim:** To achieve the objective of "**One nation, One time**".

#### Purpose:

- It will provide direct Indian Standard Time (IST) traceability to all the Telecom Service Providers (TSPs) and Internet Service Providers (ISPs) within  $\pm 20$  nano-seconds.
- This shall benefit India in multiple ways, like –
  - Reducing the dependency on GPS
  - Shifting to IRNSS/NavIC
  - Digital forensic analysis of transactions
  - Cyber secure networks
  - Reduce call drops
  - Synchronize all the telecom services with one reference time source IST, developed by CSIR-NPL.

**Centre for Development of Telematics (C-DOT):** It was established in 1984 as an autonomous Telecom R&D centre of DoT, India. It is a registered society under the Societies Regulation Act of 1860. It is a registered 'public funded research institution'.

### Perovskite- Solar Panel Technology

#### News Excerpt:

The National Centre for Photovoltaic Research and Education (NCPRE) at the Indian Institute of Technology Bombay (IITB) has developed a perovskite solar cell (PSC). The cell has demonstrated an efficiency of over 26 per cent.

#### About Perovskite- Solar Panel Technology:

- In material science, the word 'perovskite' refers to a certain crystal structure in which the atoms are arranged.
- It is in the form of  $ABX_3$ . For example, Calcium titanium oxide, or  $CaTiO_3$ , is a perovskite.
- Solar cells made with perovskite material are highly efficient at converting light into electricity.
- However, they are unstable and degrade when exposed to light.

### Nasa's Calipso Mission

#### News Excerpt:

Recently, NASA announced that the CALIPSO mission that analyzed climate, weather, and air quality completed its lifetime.

#### About CALIPSO (Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation):

- It was launched in 2006, jointly by NASA and France's CNES (Centre National d'Etudes Spatiales) along with the **cloud-profiling radar system** on the **CloudSat satellite**.
- It provides new insight into the role that clouds and airborne particles play in regulating Earth's weather, climate, and air quality.
- It combines an active **lidar instrument** with passive infrared and visible imagers to probe the vertical structure and properties of thin clouds and aerosols over the globe.
- The two satellites circled the planet in a **Sun-synchronous orbit** from the North to the South poles.
- They measured the altitude of clouds and layers of airborne particles like dust, sea salt, ash, and soot while probing the "vertical structure" of the atmosphere.
- It helped scientists to build more sophisticated models to understand complex atmospheric processes like **cloud formation, atmospheric convection, precipitation and particle transport**.

### Bluewalker 3 Satellite

#### News Excerpt:

Recently, scientists with the International Astronomical Union announced that one of the brightest objects visible in the night sky is not a star or a planet but rather the BlueWalker 3 prototype satellite.



### About the satellite:

- It is part of a satellite constellation planned by its owner, AST SpaceMobile, intended to deliver mobile or broadband services anywhere in the world.
- Observations of the BlueWalker 3 showed it was one of the brightest objects in the night sky, outshining all but the brightest stars, the researchers said.
- BlueWalker 3 actively transmits at radio frequencies close to bands reserved for radio astronomy, and existing observatory protection from radio interference may not be sufficient.

### White Phosphorus Bombs

#### News Excerpt:

Global Human Rights Organizations have accused the Israel Defense Forces (IDF) of using white phosphorus munitions in Gaza and Lebanon.

#### About:

- White phosphorus is a pyrophoric that ignites when exposed to oxygen, producing thick, light smoke as well as intense heat (815°C)
- Pyrophoric substances are those that ignite spontaneously or very quickly (under five minutes) when in contact with air.
- Under the **Globally Harmonized System of Classification and Labeling of Chemicals**, it falls under **"Pyrophoric solids, category 1"**. It is among the most unstable of pyrophoric substances.
- **Military uses of white phosphorus:**
  - It is dispersed in artillery shells, bombs, and rockets.
  - It can also be delivered via textile wedges soaked in the chemical.
  - Its primary military use is as a **smokescreen** - used to hide troop movement on the ground. The smoke acts as a visual obscurant.
  - It is also known to mess with infrared optics and weapons tracking systems, thus protecting forces from guided missiles.
- **The harmful impact of white phosphorus:**
  - It can cause severe burns, which are excruciatingly painful, difficult to heal, and susceptible to infections.
- **Legal status of white phosphorus munitions:**
  - White phosphorus munitions are not under a blanket ban, though their use is regulated under the IHL.
  - It is not considered a chemical weapon because its operational utility is primarily due to heat and smoke rather than toxicity.
  - Thus, its use is governed by the Convention on Conventional Weapons (CCW).

### Miura-1 Rocket

#### News Excerpt:

Spanish company PLD Space launched its **reusable** Miura-1 rocket recently from a site in southwest Spain.

#### About:

- The rocket is the first step in the development of MIURA5, a 35-meter-high, two-stage mini-launch vehicle designed to place satellites weighing less than 500 kilograms (1,100 pounds) into orbit from 2025.

### NASA's WISE Telescope

#### News Excerpt:

The infrared brightening of the collision of two giant stars was observed by NASA's WISE space telescope. WISE looks at the star every 300 days and probably missed the initial flash of light from the impact of collision.

#### About:

- WISE (Wide-field Infrared Survey Explorer) was launched in 2009, repeatedly mapping the entire sky in **infrared light**.
- Its catalogue of three-quarters of a billion objects led to the discovery of the coolest and nearest brown dwarfs - objects intermediate between stars and planets.
- This is an all-aluminum optical system that will produce images of the sky with 2.75 arcsec resolution in four infrared spectral bands.

### David's Sling

#### News Excerpt:

Israel's mid-range air defence missile system, David's Sling, was successfully deployed in operations for the first time in cross-border fighting with Gaza militants.

#### About:

- It is designed to shoot down rockets fired from 100 km to 200 km (62 to 124 miles) away and is part of Israel's shield that already includes **short-range Iron Dome and long-range Arrow-2 and Arrow-3 missiles**.
- It has been developed and manufactured jointly by Israel's state-owned Rafael Advanced Defense Systems Ltd and the US Raytheon Co.
- Unlike the mobile Iron Dome, David's Sling is stationary and can protect the entirety of Israel from its permanent location.

### Rashtriya Vigyan Puraskar

#### News Excerpt:

The Government of India has come out with new set of national awards known as **"Rashtriya Vigyan Puraskar"**.

**About the Award:****Objective:**

To recognize the notable and inspiring contributions made by the scientists, technologists, and innovators **individually or in teams** in various fields of science, technology and technology-led innovation.

The awards shall be given in the following **four** categories:

**People of Indian Origin staying abroad** with exceptional contributions benefiting the Indian communities or society shall **also be eligible** for the awards.

- **Vigyan Ratna (VR)** to recognize lifetime achievements & contributions.
- **Vigyan Shri (VS)** to recognize distinguished contributions.
- **Vigyan Yuva-Shanti Swarup Bhatnagar (VY-SSB)** to recognize & encourage young scientists up to the age of 45 years who made an exceptional contribution.
- **Vigyan Team (VT)**- given to a team comprising of 3 or more scientists/researchers/innovators who have made an exceptional contribution.

**In Depth:**

- These awards shall be given in the **13 domains**, namely Physics, Chemistry, Biological Sciences, Mathematics & Computer Science, Earth Science, Medicine, Engineering Sciences, Agricultural Science, Environmental Science, Technology & Innovation, Atomic Energy, Space Science and Technology, and Others.
- The representation in each domain/field will ensure **gender parity**.
- The nominations will be invited every year on 14th January, which would remain open till **28th February (National Science Day)** every year.
- These awards shall be announced on **11<sup>th</sup> May (National Technology Day)** every year.
- The Award Ceremony for all categories will be held on **23rd August (National Space Day)**.

**Luminescence dating****News Excerpt:**

A new research confirms the antiquity of fossilized footprints at White Sands National Park in New Mexico, based on **radiocarbon** and optically stimulated **luminescence dating techniques**.

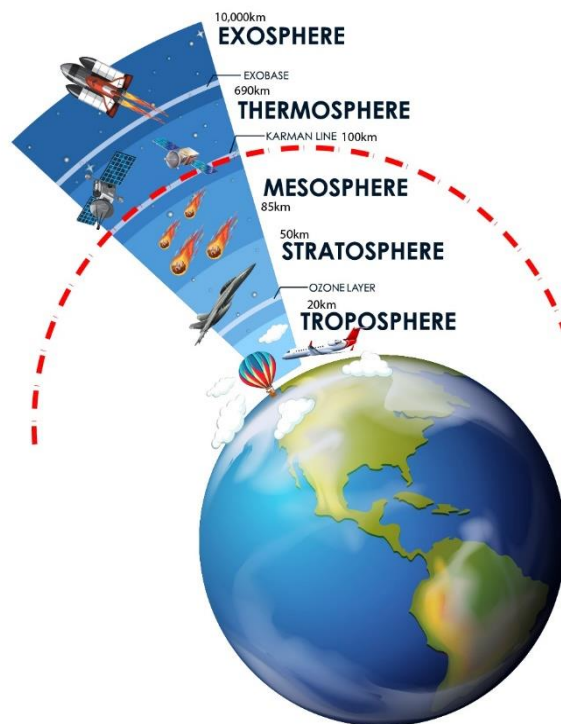
**About:**

- Luminescence dating is a form of geochronology that measures the energy of photons being released.
- In natural settings, ionizing radiation (U, Th, Rb, & K) is absorbed and stored by sediments in the crystal lattice.

- This stored radiation dose can be evicted with stimulation and released as luminescence.
- The calculated age is the time since the last exposure to sunlight or intense heat.
- The sunlight bleaches away the luminescence signal and resets the time 'clock'. (Zeroing event)
- As time passes, the luminescence signal increases through exposure to the ionizing radiation and cosmic rays.
- It is based on quantifying both the radiation dose received by a sample since its zeroing event which it has experienced during the accumulation period.
- The principal minerals used here are quartz and potassium feldspar.

**Karman Line****News Excerpt:**

Karman Line is an imaginary line that demarcates the Earth's atmosphere from space and is located at 100 km above sea level.

**THE EARTH'S ATMOSPHERE****Features:**

- The Karman Line was established to regulate airspace by the Federation Aeronautique Internationale (FAI)
- It marks, roughly, the altitude beyond which a traditional aircraft cannot fly.

- Any aircraft flying beyond it needs a propulsion system to pull away from the Earth's pull.
- It also acts as a legal reference that separates airspace that a country can claim to own from space itself, which is governed like international waters.
- Any individual who crosses the Karman Line qualifies as an astronaut, which is about 100 km above.

### DNA Nanoball (DNB) Technology

#### About:

DNA nanoball (DNB) technology combines single-stranded circular (ssCir) library construction, generation and loading of DNBs onto patterned nanoarrays, and combinatorial probe anchor synthesis (cPAS) sequencing.

- It helps increase our understanding of human health, from improving diagnostic testing accuracy to developing precision-based medicines for cancer and infectious diseases.
- It can be used for complete genome association studies and to identify rare variants and somatic mutations important in clinical settings.

### Iran's Noor 3 satellite

#### News Excerpt:

Iran launches 3rd military satellite Noor to orbit.

#### About:

- The Noor 3 imaging satellite orbits at an altitude of 450 kilometres (280 miles) above the Earth's surface.
- It was launched by the three-stage Qased, or messenger carrier.

### Polycystic Ovary Syndrome (PCOS)

#### News Excerpt:

Polycystic Ovarian Syndrome (PCOS) is a commonly seen hormonal disorder in reproductive women.

#### About:

It is a common diagnosis in women presenting with infertility. PCOS is a syndrome, not a disease. It is a lifelong condition that continues far beyond childbearing years. An estimated one in five (20%) Indian women suffer from PCOS.

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## INTERNAL SECURITY

## UAPA &amp; Associated debates

## News Excerpt:

**Unlawful Activities Prevention Act (UAPA) has been invoked against the news portal NewsClick.**

## About the news:

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- The police have accused the NewsClick **founder** of holding discussions with an "active member of the Propaganda department of the Communist Party of China" to **distort the map of India** by projecting Kashmir and Arunachal Pradesh as disputed territory.
- NewsClick is accused of money laundering by the ED, allegedly receiving ₹77 crore as foreign remittance between 2018-21 with nearly ₹38 crore from entities with alleged links to China.
- The provisions invoked against NewsClick include **Section 13** (unlawful activities), **16** (terrorist act), **17** (raising funds for terrorist acts), **18** (conspiracy), and **22 (C)** (offenses by companies, trusts) of the UAPA, along with **IPC sections 153 A** (promoting enmity between different religious groups) and **120B** (criminal conspiracy).

## Foreign funding to Indian media:

- The Indian regulatory framework permits foreign funding in the news media industry. However, the allegations against NewsClick are based on its purported use of foreign funds to spread false narratives against India and favour its geopolitical rival.
- In recent years, India has implemented stricter regulations on foreign funding of domestic entities, particularly NGOs and religious organizations. There is a growing concern that such entities, may indulge in anti-India activities on the counter side of the argument is that it curtails civil liberties as political parties are allowed to receive foreign fundings.

## Prevention of Money Laundering Act (PMLA)

- PMLA is a comprehensive penal statute to counter the threat of money laundering, in response to India's international commitment to Vienna convention.
- Critics of the law often refereed it as the government's "hatchet" law, and there is growing concern among the civil society about the powers given to the ED through this law.

## Unlawful Activities Prevention Act (UAPA), 1967:

- The law **aims** to prevent certain **unlawful activities** of individuals and associations effectively and also deals with **terrorist activities**. An "unlawful

## activity" can include:

- Any action which is done to bring about the surrender of Indian territory.
- Any action that supports the withdrawal of a part of Indian territory from the larger Union of India.
- Actions that question or disrupt the sovereignty and territorial integrity of our country.
- Any action that causes (or wants to cause) discontent against India.
- The Unlawful Activities (Prevention) **Amendment Act of 2019** broadened the definition of "terrorist" to include **individuals**.
- It provides for a **Tribunal** under a **High Court judge** to be constituted by the government for its bans to have long-term legal sanctity.
- The **NIA Director-General** can now seize assets obtained through terrorism. The government can **seize the properties, bank accounts and offices** connected to these organizations and individuals.
- In **2022**, the Ministry of Home Affairs declared the Popular Front of India (**PFI**) an "unlawful association" with any of its associates under UAPA.

## UAPA vis-a-vis IPC:


- UAPA presents an **alternate criminal law framework** where the general principles of criminal law are reversed. By **relaxing timelines** for the state to file **chargesheets** and its stringent conditions for **bail**, the UAPA gives the state more powers compared with the Indian Penal Code (IPC).
- A **remand order** can be for **30 days** instead of the usual 15, and the maximum period of **judicial custody** before filing a chargesheet is extendable from the usual 90 days to **180 days**.
- Just like other special laws dealing with narcotic drugs and the now-defunct laws on terrorism (TADA and POTA), the UAPA also **modifies** the Code of Criminal Procedure (**CrPC**) to give it more teeth.

## Significance of UAPA:

- Need of the hour:** India faces **formidable** security challenges, especially in the Union Territory of Jammu and Kashmir, the Naxalism-affected states, and the North-Eastern region. The UAPA presents the government with authorized means to **scrutinize** and bring to justice persons and groups that participate in terrorist actions.
- Empowerment:** The law permits the establishment of **dedicated courts** to handle trials and mandates severe punishment for terrorism-related crimes.
  - Additionally, it grants the government the authority to **classify individuals or groups** as terrorist entities and freeze their financial assets.



- **Broader scope:** Its purpose is to combat terrorism and other illegal activities like **organized crime**, **money laundering**, and **trafficking**.



## SUPREME COURT JUDGEMENTS

**01** **ARUP BHUYAN V. STATE OF ASSAM (2011)**

Mere membership of a banned organisation will not incriminate a person unless he resorts to violence.. A person's association with an unlawful organisation must be an active "membership".

**02** **K.A. NAJEEB V. UNION OF INDIA (2021)**

Despite the UAPA's restrictions on bail, constitutional courts can nevertheless grant bail if the accused's fundamental rights have been violated.

**03** **ARUP BHUYAN VS STATE OF ASSAM (2023)**

Even a mere membership of a banned association is sufficient to constitute an offence. It upheld the constitutional validity of Section 10(a) (i) of the UAPA.

### Issues with UAPA:

- **Criminalizing opinion and thoughts:** UAPA criminalizes the holding of particular opinions or even the mere possession of **literature**. Crimes are not just considered as **acts of commission** or **omission** but as thoughts influencing others' thoughts.
- **Violation of rights:** It criminalizes various forms of non-violent political activities, including **political protest**.
  - It is often viewed as an assault on citizens' rights to **expression**, **assembly**, and **association** under **Article 19** and right to life and liberty under Article 21.
- **Bypassing safeguards:** It has been used to bypass fundamental **legal rights** and **procedures** such as the presumption of innocence, provision of bail or

**anticipatory bail**, protection from warrantless **search**, **seizure** and **arrest** of individuals, and time limits on **detention** by the police.

- **Extensive powers:** UAPA confers broad **discretionary powers** on the government and authorizes the **creation of special courts** along with the ability to use **secret witnesses** and hold **closed-door hearings**.
- **No Judicial review:** A **review committee** to de-notify the individual notified as a terrorist is constituted by the central government, thus removing all the chances of any institutional mechanism for judicial review.

### PEPPER IT WITH:

IPC, CrPC, NIA, Fundamental Rights, History of freedom of Press in India

### Way Forward:

**Despite having significance** regarding upholding the nation's sovereignty and integrity and safeguarding the lives and possessions of its people, **UAPA has been the subject of intense debate and scrutiny**. **Striking balance:** Finding a balance between safeguarding **national security** and protecting **civil liberties** is crucial. The act will be an efficient **tool** if it is executed impartially and justly, and its regulations are not exploited to suppress lawful modes of dissent or activism.

## Future of India's Cyber Landscapes

### News Excerpt:

Recently, the **Ministry of Electronics and Information Technology (MEITY)** signaled a proactive approach to regulating and shaping the digital future of the nation through the announcement of the **Digital India Act 2023 (DIA)**. It is a significant step towards establishing a future-ready legal framework for the country's burgeoning digital ecosystem.

### Background:

- The DIA, poised to replace the two-decade-old **Information Technology Act of 2000 (IT Act)**, is designed to address the challenges and openings presented by the dramatic growth of the internet and emerging technologies.
- The IT Act of 2000, drafted during a time when the internet was in its immaturity, has struggled to keep pace with the rapid-fire changes in technology and user behaviour. Since its commencement, **India's internet user base has exploded from a bare 5.5 million to a stunning 850 million**.

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### Key provisions of DIA:

The proposed DIA includes a range of essential aspects aimed at addressing the constantly evolving digital landscape.

- Strong **emphasis on online safety and trust, with a commitment to securing citizen's rights in the digital realm** while remaining adaptable to shifting request dynamics and transnational legal principles.
- Recognizing the **growing significance of new-age technologies similar to artificial intelligence and blockchain**, the DIA provides guidelines for their responsible utilization.
- DIA strikes a balance between fostering invention and securing against implicit damages.
- It promotes **ethical AI practices, data sequestration in blockchain operations, and mechanisms for responsibility in the use of these technologies**.
- It upholds the conception of an open internet, striking a balance between availability and necessary regulations to maintain order and protect users. Also, the DIA authorizes strict Know Your Client (KYC) conditions for wearable bias, accompanied by criminal law sanctions.
- It contemplates a review of the **"safe harbor" principle**, which presently shields online platforms from liability related to user-generated content, indicating an implicit shift in online responsibility norms.

#### Safe harbour

- Safe harbour – as prescribed under Section 79 of the IT Act, 2000 – is legal immunity that online intermediaries enjoy against content posted by users on their platforms.
- This is available as long as these platforms abide by certain due diligence requirements, such as censoring content when asked by the government or courts.
- The concept originally came from Section 230 of the United States' Communications Decency Act, which has been termed "one of the foundational laws behind the modern Internet".

### Reason for new DIA:

- Intermediaries were synonymous with the safe harbor in the 2000s. Still, they have since evolved into various Internet participants with very varied functional needs that call for multiple guardrails and legal requirements.
- **Among other restrictions, the present IT Act has the following ones:**
  - Lack of comprehensive user rights, trust, and safety protections;

- Limited recognition of harms and new forms of cybercrimes without any institutional mechanism for awareness creation;
- Absence of clear regulatory procedures for harmful and illicit content.
- Lack of adequate principles for data/privacy protection.
- Lack of a converged, coordinated & harmonized institutional regulatory body; a dedicated & efficacious investigatory/ enforceability and a swift adjudicatory mechanism;
- Inadequately coordinated incident response processes for cyber security incidents.

### Importance of DIA:

- This forward-thinking attitude is advantageous for both businesses and citizens, and it also establishes India as a responsible player in the global technology landscape, prepared to utilize cutting-edge technologies while minimizing associated risks fully.
- The DIA is a critical step in ensuring that India has a secure, responsible, and innovative digital future. In a time of constant change, it represents a forward-thinking approach to regulation and has the potential to influence the digital landscape of the nation for future generations.
- This act will also **regulate a range of crimes** the government thinks are unique to the online space. **The weaponization of misinformation under the garb of free speech, along with other harms, including cyberbullying, doxxing, and identity theft, will not be entertained and will be regulated under this act.**

#### Doxxing:

- It is a type of online harassment when someone's real name, address, job, or other identifying information is made public without the victim's permission.
- It is intended to degrade, abuse, harass, or otherwise harm a victim.
- An effective adjudicatory mechanism will also be explored under the Digital India Act.

### Challenges associated with DIA:

- The review of the "safe harbor" principle, which shields online platforms from liability for user-generated content, could lead to a more conservative approach among these platforms, conceivably knocking on freedom of expression.
- The DIA's success hinges on effective enforcement, requiring substantial resources, expertise, and infrastructure.

- Balancing the interests of various stakeholders, including tech titans, while ensuring the protection of citizen rights poses a significant challenge.

#### Government Initiatives for Cyber Security

- National Security Council Secretariat organizes the 2nd Edition of the National Cyber Security Exercise ' **Bharat NCX 2023** ' for Government associations, Public and Private Sectors to strengthen India's Cyber posture of India's Critical Sector.

##### Bharat NCX

- The objective of the exercise is to train senior management and technical personnel of the government, critical sector organizations and public and private agencies about contemporary cyber threats and handling cyber incidents and response.
- The program is being conducted by the **National Security Council Secretariat (NSCS), Govt. of India in strategic cooperation with Rashtriya Raksha University (RRU).**
- The Ministry of Electronics and Information Technology (MeitY) started the **Cyber Surakshit Bharat initiative** to create a robust cybersecurity ecosystem in India. This aligns with the government's vision for a Digital India'. The National e-Government Division (NeGD) patronized this program.
- India's public agency for Cybersecurity, **The Indian Computer Emergency Response Team (CERT-In)**, has led to a reduction in cyber-attacks on government networks due to its advancements in diving the nation's Cybersecurity. By tutoring cybersecurity mindfulness and anti-phishing to government officers across India, government workers are more set to fight cybercrime.
- As a part of the Indian Government's enterprise on Cybersecurity, to guard critical information applicable to public security, profitable development, and public health, India has established the **National Critical Information Structure Protection Center.**
- A **national cyber collaboration center (NCCC)** has been set up in the government's **Cyber Swachhta initiative** to help with increased situational mindfulness about being and implicit cyber threats.

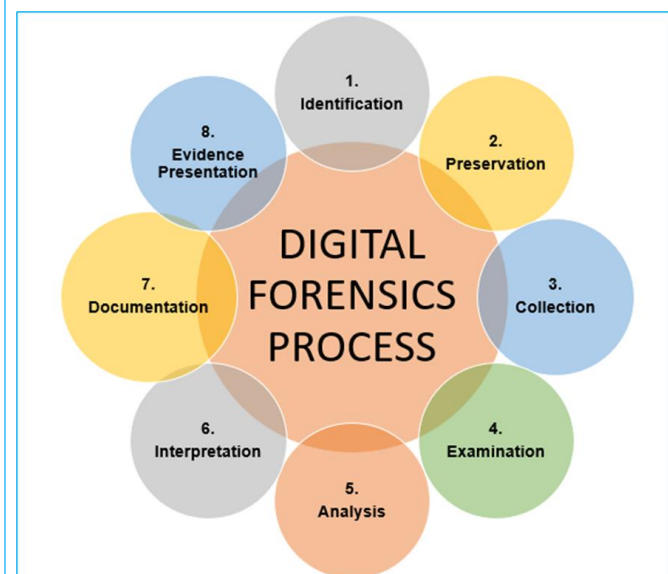
#### Way Forward

- The nation should improve its digital forensics capabilities so that cyberattacks can be quickly detected and stopped.
- Through digital campaigns, advertisements, or direct instruction, the government should adequately support cyber education in both urban and rural areas of the nation.
- The mechanism should be straightforward, offer prompt recourse to citizens, resolve online conflicts, and create future cyber jurisprudence.

- To enforce strict regulations and penalize businesses that don't increase their investments in Cybersecurity, India needs a lone, central agency.

#### Digital forensics

- Digital forensics is a branch of forensic science that focuses on identifying, acquiring, recycling, analyzing, and reporting on data stored electronically.
- Electronic substantiation is an element of nearly all felonious conditioning, and digital forensics support is pivotal for law enforcement examinations.
- Electronic substantiation can be collected from various sources, such as computers, smartphones, remote storehouses, unmanned upstanding systems, shipborne outfits, and more.
- The main feature of digital forensics is to prize data from the electronic substantiation, process it into practicable intelligence, and present the findings for execution. All processes use sound forensic ways to ensure the findings are permissible in court.



- At both the state and federal levels, there are numerous government organizations today. Establishing a national cybercrime unit with the resources to combat threats and breaches is essential.
- The responsibility of creating defenses against cybercrime must be shared in part by businesses and business organizations.

#### PEPPER IT WITH:

IT Act, AI, Blockchain, Cybercrime types, Cyber Surakshit Bharat



## PRE-SHOTS

## CHAKRAVAT 2023

## News Excerpt:

CHAKRAVAT is the Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise conducted by the Indian Army, Indian Navy (IN), and Indian Air Force (IAF) in rotation.

## About the Exercise:

- Since its first edition at Combined Commanders' Conference-2015, it has transformed itself into a multi-agency endeavor involving the participation of all three Services, Paramilitary Forces, and several disaster response organizations, NGOs, and other organizations.
- **Aim:**
  - To develop **collective and coordinated effective response mechanisms** on emergent topics such as: Humanitarian crises, Climate Change Adaptation and increase in natural disasters, Disaster Risk Reduction, and Disaster Response in the Indian Ocean Region.
  - This will help India fulfil two of the most visible elements of its foreign policy i.e.
    - **SAGAR** (Security And Growth for All in the Region) i.e. Inclusive vision for the oceans.
    - **First Responder** in the region: The Indian Armed Forces have been frequently called upon to assist our friends and partners in the Region.

## About CHAKRAVAT 2023 Edition:

- Its 2023 edition would witness participation from **eight countries** of the Indian Ocean Region. They are **Comoros, Madagascar, Maldives, Mauritius, Mozambique, Seychelles, Sri Lanka and Tanzania.**
- **The Indian Navy is hosting the 2023 edition of the exercise at Goa in October.** The last edition of the training was conducted at Agra by IAF.

## SAGAR KAVACH 02-23

## News Excerpt:

A two-day Coastal Security Exercise **Sagar Kavach** 02/23 involving all maritime security agencies was conducted by the Indian Navy in Andhra Pradesh, Tamil Nadu, and the UT of Puducherry from 11-12 Oct 2023 to strengthen the coastal security architecture.

## About the Exercise:

- It was executed under the command of Flag Officer Commanding in Chief, Eastern Naval Command.
- In this exercise, about **2500 personnel**, including from the Indian Navy, Indian Coast Guard, State and

U/T Administration, Marine Police, Fisheries, Customs, Int Agencies, Light Houses, Ports Forest etc were engaged in the exercise.

- It aimed to assess the efficacy and robustness of the coastal security mechanism while dealing with an asymmetric threat emanating from the sea.

## Military Nursing Service celebrates 98th Raising Day

## News Excerpt:

Military Nursing Service (MNS) celebrated its 98th Raising Day on Oct 1, 2023.

## About Military Nursing Service:

- The British Indian government established the Indian Army Nursing Services (IANS) in 1888. This marked the formal beginning of Military Nursing in India. The officers of IANS had played a crucial role in providing medical care to wounded soldiers during World War I and II.
- On 1st Oct 1926, the Permanent Nursing Service was raised in the Indian Army and designated as the Indian Military Nursing Service, thus making it one of the oldest and most distinguished all-women services in the Armed Forces.
- It has evolved as a renowned service known for its rich history of dedication and exemplary service in war and peace. Today, the service holds more than 5,000 officers posted at various hospitals of the Armed Forces.
- The IANS have been awarded 16 National Florence Nightingale Awards till now. The National Florence Nightingale Awards are considered one of the highest honours in the nursing profession in India.

**The National Florence Nightingale Awards** were instituted in 1973 by the Ministry of Health and Family Welfare as a mark of recognition for the meritorious services rendered by nurses and nursing professionals to society. These are given in honor of **Florence Nightingale, who is revered as the founder of modern nursing.**

## Smart fencing along the Myanmar border

## News Excerpt:

The Ministry of Home Affairs (MHA) is considering a 100-km smart fencing along the India- Myanmar border.

## What is Smart Fencing?

- A Smart Fence is, as the name implies, a type of traditional physical barrier that has been combined with modern technology, including physical barriers, cameras, sensors and IT systems. It helps keep the intruders in check who may try to enter due to insufficient manpower or any human neglect.





### Why is it necessary?

- India shares a 1,643-km border with Myanmar, which passes through Arunachal Pradesh (520 km), Nagaland (215 km), Manipur (398 km) and Mizoram (510 km). Recent insurgency in Manipur can also be attributed to the activities of Meitei, Naga, Kuki, Zomi, and Hmar insurgent groups, all having links with the Myanmar insurgent camps across the border.
- Terrain, socioeconomic development and historical factors such as language, ethnicity, tribal rivalry, migration, control over local resources and long and porous international borders have resulted in a fragile security situation in the northeastern States.
- Currently, a Free Movement Regime (FMR) exists between the two countries. Under the FMR, every member of the hill tribes, who is either a citizen of India or a citizen of Myanmar and who is a resident of any area within 16 km on either side of the Indo-Myanmar border, can cross the border on the production of a border pass (which has one-year validity) issued by the competent authority and can stay up to two weeks per visit.
- This unfenced border and unregulated migration has caused several problems for the security of the North Eastern states and the Assam Rifles, the force guarding those borders. This will help strengthen the existing surveillance system across the borders.

- The objective of the smart fence is to check not only illegal immigration but also cross-border criminal activities, especially **drug trafficking from Myanmar**.

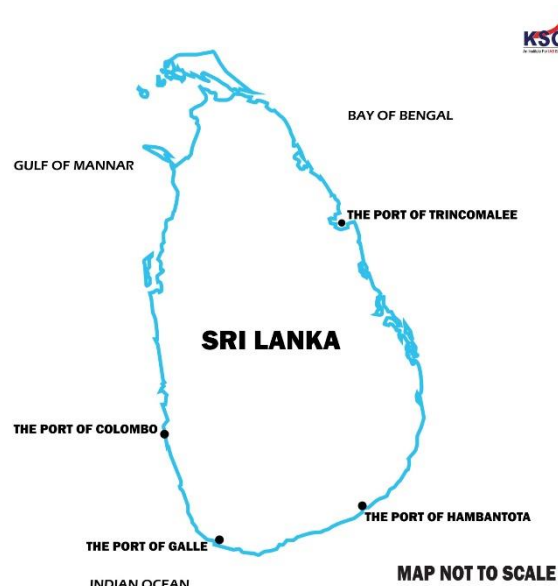
### SHI-YAN 6

#### News Excerpt:

It is a **Chinese Oceanographic research vessel** that has entered the Indian Ocean via Malacca Strait.

#### About the news:

- It was moored at Sri Lanka's Hambantota Port, which is located near India, and India has raised security concerns over the proximity and motives of the Chinese ship.
- A similar episode of tension unfolded in August 2022 when the Chinese vessel "**Yuan Wang 5**" docked at Hambantota port, despite India's concerns.



### EXERCISES IN NEWS

NAME OF THE EXERCISE	PARTNERING COUNTRIES/ORGANIZATIONS
SAMPRTI-XI EXERCISE	INDIA AND BANGLADESH
YUDH ABHYAS	INDIA AND USA
SIMBEX	INDIA AND SINGAPORE

## ART & CULTURE

### The Latest House Panel Report on The Archeological Survey of India (ASI)

#### News Excerpt:

Claiming that many of the 3,691 centrally protected monuments (CPM) in India are "minor" monuments, a parliamentary committee has recommended that the list should be rationalized.

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#### Major Highlights and Recommendations from the 359th House Panel Report:

- The panel recommended "**rationalizing and categorizing**" this list based on national significance and unique architectural and heritage value.
  - The list includes 75 graves of colonial-era soldiers or officials of no notable importance. E.g. - graves of public works department engineer John Albert Cope (died in 1880) and Henry Gassen (died 1877), working for a cotton ginning company.

ASI launched the "**Adopt a Heritage 2.0**" program to rejuvenate India's rich cultural heritage, in line with the vision of 'Virasat Bhi, Vikas Bhi.'

- It is a revamped version of the earlier Adopt a Heritage Scheme launched in 2017 and clearly defines the amenities sought for different monuments as per the AMASR, 1958.
- The stakeholders can apply to adopt a monument or specific amenities at a monument through a dedicated web portal.
- It seeks to foster collaboration with corporate stakeholders to preserve these monuments for the next generations.
- Indian Heritage App:** The app will feature state-wise details of heritage monuments of India along with photographs, a list of public amenities available, geo-tagged locations, and a feedback mechanism for citizens.
- e-Permission Portal:** For obtaining permission for photography, filming, and developmental projects on monuments. The portal will fast-track the process of obtaining various permissions and solve operational and logistical bottlenecks.
  - Deletion of some of the *kosminars* (milestones built by Mughals) because they come in the way of road-widening exercises.
- It recommended the central agency develop preservation plans for all its work, especially before excavations.

- This includes establishing clear strategies for documenting findings, conserving artefacts, and restoring structures.
- It also advocated using advanced technologies such as LiDAR, ground-penetrating radar, and 3D scanning. E.g.- used in Gyanvapi complex in Varanasi by the ASI for its non-invasive survey.
- Missing Monuments:** CAG declared 92 CPMs as "missing". The ASI has located only 42 of these monuments, while the remaining 50 monuments are either affected by rapid urbanization, submerged under reservoirs/dams or are untraceable.
  - ASI should maintain digital logbooks that include textual and photographic/ video records of the monument's physical State and location coordinates.
- It mentioned that the 100-metre prohibited area and 300-metre regulated area around all ASI-protected monuments lead to public inconvenience and have pitted the local community against these structures as it is difficult to carry out repair work.
- Encroachments: The committee recommends that ASI **should conduct a comprehensive survey of encroachments** around all monuments under its jurisdiction.
  - This will help ASI in creating a database and documenting the nature, extent and impact of encroachments on each site.
- The panel advised making the functioning of ASI more effective by dividing it into two wings:
  - The Archaeological Survey of India (ASI)** looks after the core mandate, i.e., exploration, excavation and conservation aspects and
  - The India Heritage Development Corporation (IHDC)** deals with the ASI's entire revenue.

#### Recent Works undertaken by ASI:

- Hoysala Temples in Karnataka, Shantiniketan in West Bengal.
- Conservation measures in foreign countries – such as Bamiyan Buddhas in Afghanistan; Ta Prohm and Preah Vihear temples in Cambodia, My Son Group of Temples in Vietnam; and Friday Mosque in Maldives.

**The Parliamentary Standing Committee plans to reintroduce the Ancient Monuments and Archaeological Sites and Remains (AMASR) (Amendment) Bill, 2023:**

**About Previous AMASR Act 1958**

- It provides for the -
  - Preservation (of ancient and historical monuments, archaeological sites and remains of national importance which are over 100 years old)
  - Regulation (of archaeological excavations)
  - Protection (of sculptures, carvings and other like objects).
- 3,691 Centrally Protected Monuments or Sites are located in India and are guarded by the Archaeological Survey of India (ASI) - a Ministry of Culture agency that functions under the provisions of this act.

**About current AMASR (Amendment) Act 2010**

- To strengthen the penal provisions to prevent encroachments and illegal construction close to the monuments, the 1958 Act was amended in 2010.
- The amendments provide for the creation of:
  - A prohibited area of 100 metres around every national monument where no construction, public or private, is permitted.
  - Regulated area 200 metres beyond the prohibited area, where any construction will require the permission of a newly constituted National Monuments Authority (NMA).
- The amendment also suggested that heritage by-laws for each monument be created by an expert body, given the uniqueness of each monument.

**About the proposed New AMASR (Amendment) Bill, 2023:**

- The Bill seeks **to redefine monuments and rationalize** the use of areas around the protected monuments.
  - The Act, in its present form, restricts many areas that could be put to good use, specifically in the case of developmental and infrastructure-related work.
  - For example, prohibiting residents from constructing their houses within 100 metres of small and insignificant structures causes a lot of inconveniences and revenue loss to them.
- Through this Bill, the Government aims to effect a change in the current benchmark of a structure having **to be at least 100 years old to be listed as a monument.**
- The relook on the monuments also aligns with the **Government's aim to rid India of its 'colonial past.'**

**PEPPER IT WITH:**

Ministry of Tourism Schemes,  
ASI, Indian Heritage  
Development Corporation

- The Government believes that most of the current monuments are from the British era despite India having a vast wealth of more ancient structures.

**Adi Shankaracharya Statue at Omkareshwar****News Excerpt:**

Madhya Pradesh CM unveiled the 108-foot-tall 'Statue of Oneness' or 'Ekatmata ki Murti' of **Adi Shankaracharya** at Omkareshwar on Mandhata Island.

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**About the statue:**

- The multi-metal statue is installed atop Mandhata Parvat hill, facing southwards towards the Narmada River.
- It stands atop a 54-feet pedestal, supported by a 27-feet lotus petal base made of red stone.
- At the base of the statue is the Shankar Stambh, which features wooden domes and stone pillars with "carvings depicting 32 stories related to Acharya Shankar.

**Doctrine of Oneness** is a philosophical and spiritual idea that suggests a fundamental unity or interconnectedness underlying all of existence.

**About Adi Shankaracharya:**

- Adi Shankara, who is believed to have lived between **788 and 820 AD**, was **born in Kerala's Kaladi**, situated on the bank of the **Periyar River**.
- He was one of the most influential philosophers of India.
- He advocated Advaita, or the doctrine of the oneness of the individual soul and the Supreme God, which is the Ultimate Reality.
- He studied under his guru Govinda Bhagavatpada in Omkareshwar, and challenged prevailing philosophical traditions – including **Buddhism and Jainism**.
- He became a proponent of **Advaita Vedanta**. It is a school of Hindu Philosophy that teaches non-duality, or the absence of separation between the subject and object.
- He believed that the Brahman is real, the world is unreal, and the individual self is non-different from Brahman.



- His Hinduism does not see God as external to the universe, and both are indivisible.
- **Literature:** He authored as many as 116 books in just 32 years of lifespan.
  - The most notable are the **commentaries** or bhashyas on the 10 Upanishads, the Brahma Sutra, and the Bhagavad Gita and include some of the **introductory texts**.
- Shankara is said to have **founded four monasteries (mathas) at Shringeri (south), Puri (east), Dwaraka (west), and Jyotirmath (north)**, probably following the Buddhist monastery (*vihara*) system.



#### About Mandhata Island:

- The Mandhata Island rests on the **Narmada River**.
- It is home to **two jyotirlingas** of a total of twelve- Omkareshwara (south side of the island) and Amareshwara. The name 'Omkareshwar' is derived from the island's shape, resembling the sacred syllable 'Om', and its name means 'the Lord of Omkara'.
- The area is close to Mahakaleshwara Jyotirlinga, located in Ujjain.
- This island consists of **Shaivite, Vaishnavite and Jain temples** dating back to the **14<sup>th</sup> and 16<sup>th</sup> centuries**.

#### About Vedanta:

- This was described by **Badrayan** in Brahma Sutra but popularized by Adi Shankaracharya.
- It referred to the end of the Vedas with an emphasis on the Upanishads. Therefore, it is also known as '**Uttara Mimansa**' or '**Jnana Mimansa**' (Study of knowledge).
- It tells that every action must be guided by the intellect, whether right or wrong.

- According to Vedanta, all religions lead to the same goal.
- This school believes in Karma and rebirth. It states that Brahma is real and everything else is unreal (maya).

#### Way Forward:

It is testimony to his vision and foresight that even after thousands of years past his lifetime, his philosophy is still in vogue, and the institutions he helped to set up are still alive and thriving.

#### PEPPER IT WITH:

Six Schools of Philosophy, Swami Narayan Sampradaya, Buddhism, Jainism

#### PRE-SHOTS

#### Sammakka Sarakka Cental Tribal University

##### News Excerpt:

The Union Cabinet approved the Sammakka Sarakka Central Tribal University to come up in the Mulugu district, Telangana.



##### About the news:

- The Union Cabinet approved the introduction of the **Central Universities (Amendment) Bill, 2023 in Parliament** to amend the **Central Universities Act, 2009** for setting up of Sammakka Sarakka Central Tribal University, Telangana.
- The University was a commitment made by the Central Government as a part of the 13th Schedule of the Andhra Pradesh Reorganisation Act, 2014.
- **Significance of the new University:**
  - Increase access and improve the quality of higher education in the State.
  - Benefit the State's tribal population by providing instructional and research facilities in tribal art, culture, and traditional knowledge systems.
  - Create additional capacity and strive to remove regional imbalances.

#### The History of Sammakka-Sarakka and its relation to Koya tribes:

- Sammakka was married to Pagididda Raju, a feudal chief of the **Kakatiyas (a Deccan dynasty)** ruling the **Warangal area**. They had two daughters- Sarakka or Saralamma and Nagulamma and one son- Jampanna.
- The Jatara event commemorates the battle of the 13th-century mother-daughter duo in protest against the **imposition of taxes** on the **Koya people** by local rulers.



- In the battle, Sarakka died, while Sammakka disappeared into the hills, and the local tribals believed she metamorphosed into a vermillion casket.
- **The Sammakka Saralamma Jatara (State Festival of Telangana)**, known as Kumbh Mela for tribals, is considered among the most significant religious gatherings of tribal people in India. It is also a part of the Tribal Circuit under the Swadesh Darshan Scheme.

## Mission LiFE

### News Excerpt:

Green Tourism for a sustainable, responsible and resilient tourism sector is one of the five priorities for the Tourism Working Group under **India's G20 Presidency**.

### About:

- **Mission LiFE (Lifestyle for Environment)**, envisioned by the Prime Minister of India, is a global mass movement led by India urging individuals and communities to act for the protection of the environment against the effects of climate change.
- **Ministry of Tourism** has accordingly developed the Travel for **LiFE program under Mission LiFE** to bring large-scale behavioural change amongst tourists and tourism businesses, significantly impacting environment protection and climate action.

### Objectives of Mission LiFE:

- Mission LiFE embodies the spirit of the **Pro Planet People (P3) model** and functions on the basic principles of "Lifestyle of the planet, for the planet and by the planet".
- It calls for a transition **from a "use-and-dispose" economy to a circular economy characterized by mindful and deliberate utilization of resources**.

## NATIONAL STRATEGY FOR SUSTAINABLE TOURISM

**Following strategic pillars have been identified for the development of sustainable tourism:**

- ✧ Promoting Environmental Sustainability
- ✧ Protecting Biodiversity
- ✧ Promoting Economic Sustainability
- ✧ Promoting Socio-Cultural Sustainability
- ✧ Scheme for Certification of Sustainable Tourism
- ✧ Information, Education & Communication (IEC) strategy and Capacity Building
- ✧ Governance

### Three Core Shifts envisaged under Mission LiFE:

- **Change in Demand (Phase I):** Nudging individuals worldwide to practice simple yet effective environment-friendly actions in their daily lives.
- **Change in Supply (Phase II):** Changes in large-scale individual demand are expected to gradually nudge

industries and markets to respond and tailor supply and procurement as per the revised demands.

- **Change in Policy (Phase III):** By influencing the demand and supply dynamics of India and the world, the long-term vision of Mission LiFE is to trigger shifts in large-scale industrial and Government policies that can support both sustainable consumption and production.



Hence, it will be a medium to **spread awareness among tourists and tourism businesses** towards incorporating sustainability in their respective domains.

## Veer Gatha Project 3.0

### News Excerpt:

In the 3rd edition of the Veer Gatha Project, a remarkable 1.36 crore school students hailing from 36 states and UTs across India participated.

### About:

- The Ministry of Defence (MoD), in collaboration with the Ministry of Education (MoE), launched Project Veer Gatha 3.0 in 2023-24.
- Project Veer Gatha was initiated under the **Gallantry Awards Portal (GAP)**. **Veer Gatha 1.0 was conducted in 2021-22 and Veer Gatha 2.0 in 2022-23.**
- **Objective:** Spreading awareness about the courageous deeds of Gallantry Awardees so that school students get motivated to do projects/activities based on gallantry award winners.
- **Aim:** To honour the acts of bravery and sacrifice of the officers/personnel of the Armed Forces, other lawfully constituted forces and civilians, gallantry awards are **announced twice a year** – first on the occasion of the **Republic Day** and then on the Occasion of the **Independence Day**.
- The Project shall be open for all states and Union Territories and all schools affiliated with CBSE from 28th July to 20th Dec 2023.

## India's First Green Energy Archaeological Site

### News Excerpt:

Shore Temple in Mamallapuram, a UNESCO World Heritage Site, recently has attained the distinction of becoming India's inaugural **Green Energy Archaeological Site**.

### About Shore Temple:



- This **Dravida style** temple complex located in Mamallapuram, Tamil Nadu, **dedicated to Lord Shiva and Lord Vishnu**.
- It was thought to be built during the reign of **Narasimhavarman II**, also known as **Rajasimha (Pallava ruler)**, who reigned from **700 to 728 CE**.
- Shore Temple is one of the **oldest structural excellence (rock-cut) stone temples** at Mahabalipuram, on **the Coromandel Coast of Tamil Nadu** in South India. (**Dravida style**)
- The Mamallapuram monuments and temples, including the Shore Temple complex, were collectively designated a **UNESCO World Heritage site in 1984**.

### What is the Green Heritage Project?

- Green Heritage aims at developing a holistic, innovative and inclusive approach toward direct and indirect **climate change** impact on **intangible cultural heritage**.
- Moreover, it aims to empower the local community by creating **employment opportunities**.
- Women from the local area have been engaged to operate electric buggies, a sustainable mode of transport that benefits pregnant women, senior citizens, and individuals with disabilities.
- This not only promotes inclusivity but also reduces the carbon footprint associated with traditional modes of transportation.

## Maa Danteshwari Shaktipeeth

### News Excerpt:

Our Prime Minister visits Maa Danteshwari ShaktiPeeth in Chhatisgarh.

### What is Shakti Peeth?

- Shakti Peeth is a sacred place of eternal power and is considered significant in Hinduism / Sanatan Dharma.

- It is believed that these are the places where a part of Devi Sati's body or her ornaments fell on the earth. There are a total of **51 Shakti Peeths**, out of which **18** are considered as **Maha Shakti Peeths**.
- Most of these peeths are located in India, with a few in neighbouring countries like Pakistan, Bangladesh, and Sri Lanka.

### About Danteshwari Shaktipeeth:

- The **51 Shakti Peeths** are elaborated in **Devi Purana** text. Danteshwari Shakti Peeth of Chattisgarh is one of among them. It is dedicated to Goddess Mahalakshmi.
- Teeth of devi sati had fallen here, hence the name Danteshwari and the district Dantewada.
- **Location:** It is situated at the confluence of the holy rivers Shankini and Dhankini, in the Dantewada district.

## Mewar School of Painting

### News Excerpt:

Recently, the artists tried to unravel the mystery behind the man who illustrated the epic with 4,000 paintings, done in the Mewari miniature style, which is now with the Government Museum in Udaipur

### About Mewar school of painting:

- Mewar School of Painting belongs to the **group of early painting centres from Rajasthan**.
- The Mewar School of painting's emergence is linked to an early dated set of **Ragamala paintings**.
  - In the **Rajasthani school of painting**, artists evolved to include texts like **Harivamsha** and **Sursagar (Puranas)** towards the last quarter of the **seventeenth century**.
- Mewar School of Painting artists are biased towards reds and yellows as a **bright colour palette** is their topmost preference. Furthermore, Mewar paintings stood out from the others in terms of secular and courtly ambience around the **eighteenth century**.
- **Subjects associated with paintings:** Flamboyant court scenes, hunting expeditions, festivals, zenana activities, and sports.



### About Rajasthani School of Painting:

- **Location:** It had its influence in **Rajasthan** and **parts of Madhya Pradesh** in the present time, such as **Mewar, Bundi, Kota, Jaipur, Bikaner, Kishangarh, Jodhpur (Marwar), Malwa, Sirohi** and other such principalities largely **between the sixteenth and early nineteenth centuries**.

### Salient features:

- The **background of the paintings** formed a special feature of the Rajasthani School.
  - Paper, ivory and silk were used as their canvas in this school of painting.
- This style of painting is **deeply rooted in Indian traditions**
  - It takes inspiration from love poems in Sanskrit and other Indian languages, Indian folk-lore and works on musical themes.
  - The cults of **Vaishnavism, Saivism and Shakti** exercised tremendous influence on the pictorial art of this school.
  - It depicted stories from Indian epics, religious texts like the Puranas, and the royal lifestyle of kings and queens.
- The Rajasthani School of Painting is marked by **bold drawings and strong and contrasting colours**.
  - The treatment of figures is flat without any attempt to show perspective in a **naturalistic manner**.
  - Sometimes, the surface of the painting is divided into several compartments of different colours to separate one scene from another.
- **Mughal influence** is seen in the refining of drawings and some elements of naturalism introduced in figures and trees.
  - They also **portrayed social values and the changes** introduced by kings for the betterment of society.

### Mysuru Dasara

#### About the Mysuru Dasara Festival:

- Mysore Dasara, also known as '*Naada Habba*', is the **state festival of Karnataka**. It is a **10-day festival**, starting with nine nights called Navratri and the last day being Vijayadashami.
- The festival is observed on the tenth day in the Hindu calendar month of Ashvina, typically in the Gregorian months of September and October.
- It was the day in the Hindu legends when Goddess Chamundeshwari (Durga) killed the demon Mahishasura. (*Got the city name 'Mysuru' from 'Mahishasura'*)

### What does the History say about the Festival?

- The Dasara festival in Mysuru, which was first observed in Karnataka state by the **Vijayanagara Empire kings in the 15th century**.
- **From the diaries of Foreign Travelers:** The Italian traveller **Niccolo de Conti** described the festival's intensity and importance as a grandeur, religious and martial event with royal support.
  - However, after the fall of the Vijayanagar to the Deccan Sultanates, these Hindu celebrations **ended during Muslim rulers**.
- The **Wodeyars of Mysore** formed a kingdom in the Southern parts of the Vijayanagara Empire. They continued the Mahanavami (Dasara) festival celebration, **a tradition started initially by Raja Wodeyar I (1578-1617 CE) in mid-September 1610 at Srirangapatnam**.

### Shri Ramalinga Swamy

#### News Excerpt:

PM addresses the 200th birth anniversary of Shri Ramalinga Swamy, also known as 'Vallalar.'

#### About Shri Ramalinga Swamy:

- Born in the village of Marudhur (Tamil Nadu), he was a prominent Tamil poet in the 19<sup>th</sup> century and a member of the "**gnana siddhars**" lineage.
- **His Contribution towards Society:**
  - He recognized **divinity in every atom of the universe**, transcending religious, caste, and creed barriers. Hence, he was strongly against the caste system and initiated the 'Samarasa Vedha Sanmarga Sangam' in 1865, later renamed as '**Samarasa Suddha Sanmarga Sathya Sangam**.'
  - He also established '**Sathya Dharma Salai**,' a free food facility in Vadalur, Tamil Nadu 1867, serving all people without caste distinctions.
- **His Philosophy and preaching:**
  - **Compassion for living beings:** According to Suddha Sanmarga, the prime aspects of human life should be love, connected with charity and divine practice, leading to pure knowledge.
  - He believed that the intelligence possessed by humans is illusory (Maya) intelligence and not accurate or final; hence he preached to emphasize on "*Jeeva Karunyam*" (Compassion for living beings) as the path of final intelligence.
  - He forbade killing animals for food and advocated feeding the poor as the highest form of worship.

## Arunachal Yak Churpi

### News Excerpt:

Arunachal Yak Churpi became the **first ever Yak milk**



**product** to get a **Geographical Indication (GI) tag**.

### About:

- **Yak Churpi** is a naturally fermented cheese prepared from the milk of Arunachali yak reared in the high altitude areas in Arunachal Pradesh.
- It is rich in **protein** and used as a substitute for vegetables or mixed in meat curry or eaten with rice as a staple food.
- This GI tag will serve the cause of yak conservation and yak pastoralists' socio-economic upliftment.
- It is reared by tribal yak pastoralists known as '**Brokpas**' who migrate along with their yaks to higher reaches during summers and descend to mid-altitude mountainous regions in winters.
- Two other unique products from the frontier state, **Khaw Tai (Khamti rice) from the Namsai region** and **Tangsa textile**, have also obtained GI certifications that will now offer legal safeguards and enhance their marketability with Arunachal as their place of origin.

## Cashew gets the GI Tag

### News Excerpt:

Recently, Goan cashew (kernel) got the geographical indication (GI) tag. The Goa government recognized this as a great opportunity for the cashew industry in the State and "a milestone towards Swayampurna Goa's mission."

### What the GI tag can mean for the cashew industry in Goa?

- A GI tag is conferred upon products from a specific geographical region, **signifying unique characteristics and qualities**.

- It serves as a **trademark in the international market** and is given by the Geographical Indications Registry in Chennai.
- GI status would **help to preserve the legacy** of Goan cashews.
- It **would help consumers differentiate** between authentic Goan cashews and others

### History and Economics of the Cashew Crop in India:

- Cashew is native to northeast Brazil and was introduced to Goa by the **Portuguese Traders in 1570** after Vasco-da-gama.
- **Type of Crop:** It is mainly a crop for afforestation and soil conservation. It is adapted to warm humid tropical conditions, is sun-loving, and does not tolerate excessive shade. The most favourable temperature is 24 - 28°C.
- **Cashew Production in India:** Cashew cultivation spread along the coastal regions of the peninsula. Cashew is mainly grown in states like Maharashtra, Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Goa, Orissa, West Bengal, and some parts of the North-Eastern region.
  - According to data published by the National Horticulture Board (NHB), **Maharashtra stood first in annual cashew nut production** during 2021-22.

## Hakki Pikki Tribe

### News Excerpt:

Recently, the **Hakki Pikki tribal community** (114 tribal people) got title deeds to their lands which they had cultivated for about a century.

### About Hakki Pikki Tribe:

- The word '**Hakki**' stands for 'bird', and '**Pikki**' stands for the verb 'to catch'.
- The community is known as the '**bird catcher**,' which is their traditional occupation.
- They are a **semi-nomadic** tribal group from **Karnataka**.
- They are recognized as a Scheduled Tribe in India.
- The tribe stopped hunting once harsher wildlife restrictions were established and started selling spices, flowers, Ayurvedic remedies, and herbal oils instead.
- They are said to be a **matriarchal group**.
- They communicate in '**Vaagri**'. **UNESCO** has listed 'Vaagri' as one of the **endangered languages**.
- They are renowned for their **indigenous medicines**.



## GOVERNMENT SCHEMES

### Project Udbhav

#### News excerpt:

Recently, the Indian Army has started an initiative, named **Project Udbhav**, to rediscover the '**profound Indic heritage of statecraft and strategic thoughts**'.

#### About Project Udbhav:



- It is an initiative by the **Indian Army** in collaboration with the **United Service Institution of India (USI)**, a defence think-tank.
- It aims to integrate India's age-old wisdom in statecraft, strategy, diplomacy, and warfare with modern military pedagogy.
- It seeks to bridge the gap between historical and contemporary thematic studies of military warfare.
- It will look into the integration of India's "ancient strategic acumen" into the contemporary military domain and develop an "indigenous strategic vocabulary", rooted in India's "philosophy and culture".
- It would focus on historical and regional texts and kingdoms, thematic and Kautilya studies.
- Through this, the Army aims to nurture its future officers to apply ancient wisdom in modern scenarios and allow a more profound understanding of international relations and foreign cultures.

#### United Service Institution of India (USI):

- The USI is a defence think tank, founded in 1870 by a soldier scholar, Colonel (later Major General) Sir Charles MacGregor.
- The story of its growth is the story of the growth of the Indian Armed Forces.
- It was founded to further interest and knowledge in the art, science and literature of the Defence Services.'
- It is headed by an Officer of Major General or of equivalent rank.

### Mera Yuva Bharat

#### News excerpt:

The Union Cabinet has approved the establishment of an autonomous body, Mera Yuva Bharat (MY Bharat), to serve as an overarching enabling mechanism powered by technology for youth development and youth-led development and provide equitable access to youth to actualize their aspirations and build Viksit Bharat across the entire spectrum of the Government.

#### Key Features:

- It will benefit the youth in the age group of 15-29 years, in line with the definition of 'Youth' in the National Youth Policy.
- Regarding programme components specifically meant for adolescents, the beneficiaries will be in the age group of 10-19 years.
- It will help in Setting the focus of the Government on Youth-Led development and make the Youth "active drivers" of development and not merely "passive recipients".
- It will be launched on 31st October 2023 on National Unity Day.
- The primary objective is to make it a Government platform for youth development. Under the new arrangement, with access to resources & connection to opportunities, youth would become community change agents and nation builders allowing them to act as the Yuva Setu between the Government and the citizens.
- The establishment of Mera Yuva Bharat (MY Bharat) would lead to:
  - Leadership Development in the Youth.
  - Better alignment between youth aspirations and community needs.
  - Create a centralized youth database.
  - Improved two-way communication to connect youth government initiatives and activities of other stakeholders that engage with youth.

### Sagar Parikrama

#### News excerpt:

Sagar Parikrama, **Phase-IX** was recently launched by the Union Minister for Fisheries, Animal Husbandry and Dairying ((FAH&D) in Tamil Nadu and Puducherry. The first phase of 'Sagar Parikrama' started on 5th March 2022 from **Mandvi to Porbandar (Gujarat)**.

**About the Program:**

- Sagar Parikrama is an outreach program intended to reach out to fishermen's communities across the entire coastal belt of the country.
- It aims to resolve the issues of the fishers and other stakeholders and to facilitate their economic upliftment.
- The main **objectives** of 'Sagar Parikrama' are:
  - Disseminate information on various fisheries-related schemes and programs being implemented by the Government such as the Pradhan Mantri Matsya Sampada Yojana (PMMSY), 'Fisheries and Aquaculture Infrastructure Development Fund', and the Kisan Credit Card (KCC).
  - promoting responsible fisheries with a focus on sustainable balance and protection of marine ecosystems.
  - Facilitate interaction and demonstrate solidarity with all fisher folk, fish farmers, coastal communities and concerned stakeholders as a spirit of Aatmanirbhar Bharat.
  - Promote responsible fisheries with a focus on the sustainable balance between utilizing marine fisheries resources for the food security of the nation and livelihoods of coastal fisher communities and the protection of marine ecosystems.

**PM Vishwakarma****News Excerpt:**

Prime Minister launched PM-VISHWAKARMA Yojana in New Delhi.

**About the scheme:****Objectives:**

- To enable the **recognition** of **artisans** and **craftspeople**, provide **skill upgradation** to hone their skills and give them a platform for **brand promotion** and **market linkages** to help them access new growth opportunities.
- Support for better and modern tools, easy access to collateral-free credit, incentives for digital transactions, platform for brand promotion and market linkages.

**Key Features:**

- It will be implemented as a **central sector scheme**, with an initial outlay of Rs **13,000 crore**. It will be

initially implemented for **five years** up to 2027-28. **18 traditional trades** are included under it.

- It will be jointly implemented by the Ministry of Micro, Small and Medium Enterprises (**MoMSME**), the Ministry of Skill Development and Entrepreneurship (**MSDE**) and the Department of Financial Services (**DFS**), Ministry of Finance (MoF). MoMSME will be the nodal ministry for the Scheme.
- A **three-tier implementation framework** at the national, state and district levels, i.e., the National Steering Committee, State Monitoring Committee and District Implementation Committee, respectively, has been provided for its implementation.

**Government's initiatives for the artisans and handicrafts -**

- Upgrading the Skills and Training in Traditional Arts/Crafts for Development (**USTTAD**),
- Export Promotion Council for Handicrafts,
- Ambedkar Hastshilp Vikas Yojana, Mega Cluster Scheme,
- One District One Product,
- National Handicraft Development Programme,
- Comprehensive Handicrafts Cluster Development Scheme,
- Atmanirbhar Hastshilpkar Scheme.

**Eligibility:**

- **Minimum age** of the beneficiary- **18 years** on the date of registration.
- Engaged in the trades concerned on the registration date and should **not** have **availed loans** under **similar credit-based schemes** of the Central Government or State Government.
- The registration and benefits under the scheme shall be **restricted** to **one family member**.
- A person in government service and his/her family members shall **not** be eligible under the Scheme.

**Registration:**

- MoMSME will enroll the **beneficiary families** in association with **CSCs** (Common Service Centres). **The e-Shram database** will primarily identify potential beneficiaries falling in the trade categories covered under the scheme.
- An **Aadhaar authenticated** and centralized PM Vishwakarma **portal** will act as the facilitator along with a PM Vishwakarma **mobile app** to enable smooth operations of the Scheme.

- There will be a **three-tier verification and approval** process for the registration of beneficiaries, namely at village, district, and state levels.

### Eligible Trades

<b>Wood Based</b> Carpenter (Suthar) Boat Maker	<b>Gold/Silver Based</b> Goldsmith (Sunar)	<b>Architecture/ Construction</b> Mason (Rajmistri)
<b>Iron/Metal Based*/ Stone Based</b> Armourer Blacksmith (Lohar) Hammer and Tool Kit Maker Locksmith Sculptor (Moortikar, stone carver), Stone Breaker	<b>Clay Based</b> Potter (Kumhaar)	<b>Others</b> Basket/ Mat/ Broom Maker/ Coir Weaver Doll & Toy Maker (Traditional) Barber (Naai) Garland Maker (Malakaar) Washerman (Dhobi) Tailor (Darzi) Fishing Net Maker
	<b>Leather Based</b> Cobbler (Charmakar)/ Shoesmith/ Footwear Artisan	

Note: (\*) Also includes manufacture of Bronze, Brass, Copper, Dias, Utensils, Figurines, etc.

### Benefits under PM Vishwakarma:

- Recognition: Certificate and ID Card** provided **digitally** as well as in physical form.
- Basic Training of 5-7 days and Advanced Training of 15 days or more, with a stipend of Rs. 500 per day.
- 100 percent funding is done by **MoMSME** and will be released to the agency designated by **MSDE** for further expenditure or disbursement.
- Toolkit Incentive:** Rs 15,000 grant, **e-vouchers** will be provided by MoMSME.
- Credit Support:**
  - Collateral-free Enterprise Development Loans:** Rs 1 lakh (1st Tranche for 18 months repayment) and Rs 2 lakh (2nd Tranche for 30 months repayment).
  - Concessional rate of Interest:** 5 percent to be charged from the beneficiary, with an Interest Subvention cap of 8 percent to be paid by MoMSME.
  - Credit guarantee fees:** It is to be borne by the Government of India.
- Incentive for Digital Transactions:** An amount of **Re. 1 per eligible digital transaction** will be **credited** to the beneficiary's bank account in **DBT mode** through the Aadhaar Payment Bridge System (APBS).
- Marketing Support:** The National Committee for Marketing (NCM) will provide services such as marketing, branding, quality certification, advertising, publicity, E- e-commerce linkage, trade fairs and other marketing activities.

## Malaviya Mission- Teacher Training Programme

### News excerpt:

The Union Minister for Education and Skill Development & Entrepreneurship launched the Malaviya Mission - Teachers Training Programme by the University Grants Commission.

### About the program:

- It aims to provide **tailored training programmes** for the **capacity building** of **faculty** members in higher educational institutions (HEIs).
- UGC intends to **train 15 lakh teachers** over the **next 2 years** through **111 Malaviya Mission centres** across India.
- The Human Resource Development Centres (HRDCs) have been **renamed** as **Madan Mohan Malaviya Teachers' Training Centre**.

### Other initiatives of UGC to train teachers-

UGC to train more than 1000 university teachers to teach relevant courses on **Indian Knowledge Systems (IKS)** from degree level.

### About:

- The University Grants Commission (UGC) plans to start **two credit courses** giving an overview of **Indian culture and traditions** in the **first years** of both the **UG** and **PG** programmes across the country.
- Main areas:** **Parampara** (tradition), **Drishti** (perspective), and **Loukik Prayojan** (modern relevance) of ancient IKS.
- It is **part** of the **Malaviya Mission** and aligns with the National Education Policy 2020.
- Conducted in **six cities** — Nagpur, Chennai, Varanasi, Srinagar, Guwahati, and Delhi
- The **six-day training** is divided into **four parts** –
  - Overview** of the subject, including an introduction to **pre-14th century Vedic texts**.
  - Philosophical foundations of IKS like the **Darshana Shastra** (Vedic Philosophy).
  - Vocabulary lessons** containing words that cannot be translated, such as karma and dharma.
  - Methods of teaching IKS, such as **Tantra Yukti**, a **research methodology** and innovative **pedagogy**.

## MISCELLANEOUS

### Nobel Peace Prize

#### News Excerpt:

**Iranian** activist **Narges Mohammadi** has been awarded the **2023 Nobel Prize for Peace** "For her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all". Her brave struggle has come with tremendous personal costs. Altogether, the regime has arrested her 13 times, convicted her five times, and sentenced her to a total of 31 years in prison and 154 lashes.

#### In-depth:

- The Nobel Peace Prize has been awarded 104 times to 141 (111 individuals and 30 organizations) Nobel Prize laureates between 1901 and 2023.
- The **International Committee of the Red Cross** has been awarded the Nobel Peace Prize three times (in 1917, 1944, and 1963), and the **Office of the United Nations High Commissioner for Refugees** has been awarded the Nobel Peace Prize two times (in 1954 and 1981).

The **motto** adopted by the demonstrators: "**Zan – Zindagi – Azadi**" i.e. "**Woman – Life – Freedom**" – suitably expresses the dedication and work of Narges Mohammadi.

1. **Woman:** She fights for women against systematic discrimination and oppression.
2. **Life:** She supports women's struggle for the right to live full and dignified lives. This struggle across Iran has been met with persecution, imprisonment, torture, and even death.
3. **Freedom:** She fights for freedom of expression and the right against rules requiring women to remain out of sight and to cover their bodies. The freedom demands expressed by demonstrators apply not only to women but to the entire population.

### Nobel Literature Prize

#### News Excerpt:

The Nobel Prize in Literature for 2023 is awarded to the **Norwegian author Jon Fosse** "for his innovative plays and prose which gives voice to the unsayable".

#### In-depth:

- The Nobel Literature Prize has been awarded 116 times to 120 Nobel Prize laureates, out of which only 17 have been women.
- **This year's literature laureate Jon Fosse writes novels heavily pared down to a style that has come to be known as 'Fosse minimalism'.**
- Fosse, which means "waterfall" in Norwegian, is written in Nynorsk, the least common of the two official versions of Norwegian. After winning the

Nobel, he said he regarded the award as a recognition of this language and the movement promoting it and that he ultimately owed the prize to the language itself.

- Fosse's magnum opus in prose is named 'Septology'. It is a 1,250-page novel that is one long, very long sentence, plays charged with unspeakable emotional tension due to anxiety and uncertainty, and minimalist poems that raise existential questions.

### Sportswashing

#### News Excerpt:

**The Crown Prince of Saudi Arabia** recently said in an **interview** that he does **not care** when he is accused of '**sportswashing**'.

#### Definition:

Sportswashing is the **practice** followed by individuals, corporations or governments of **using sports** to **improve reputations** deteriorated by misconduct. It can be accomplished through **hosting** sporting events or **purchasing** and **sponsoring** sporting teams.

### Inclusion of Cricket in the Olympics

#### News Excerpt:

Recently, an International Olympic Committee (**IOC**) meeting was held in **Mumbai**.

#### About:

- IOC has approved the inclusion of **Baseball-Softball, Cricket, Flag football, Lacrosse** and **Squash** in the Los Angeles Olympic Games 2028.
- According to IOC rules, host cities can propose sports they would like to be added to the Olympic programme.

#### IOC

- ✧ Established on 23 June 1894, in **Lausanne, Switzerland**.
- ✧ It is a **not-for-profit** independent international organization entirely **privately funded** and distributes **90%** of its revenues to the wider sporting movement for the development of sport and athletes at all levels.
- ✧ It acts as a **catalyst** for collaboration between all **Olympic stakeholders**, including the athletes, the National Olympic Committees, the International Federations, the Organising Committees for the Olympic games, the Worldwide Olympic partners, and Olympic broadcast partners.
- ✧ It also collaborates with public and private authorities including the United Nations and other international organizations.



## CONTEMPORARY ETHICS CASE STUDIES

You are a reputed doctor in your city. One day, an unmarried woman comes to visit you for an abortion. After the checkup, you find out that she is 24 weeks pregnant. Her family is very conservative and against pregnancy before marriage. They have clarified that they will no longer allow her to live at home, and they have withdrawn all the financial support. She has been living with her partner till now, but because of family pressure, he has also denied marrying her and left her. Due to such abrupt denial from her family and partner, she is now suffering from depression. The abortion law in the country does not have explicit provisions regarding the abortion of unmarried women. If she does not have this abortion, there is a high risk that she or her child might die. She is offering you a hefty amount for the abortion.

- Discuss the ethical dilemma involved in the case.
- What are the options available to you to address the situation? What course of action would you take to help her?
- Examine the impact of your decision on the stakeholders involved.



SCAN THIS QR FOR MODEL  
ANSWER

## PHILOSOPHY OF THE MONTH

### Using Stray dogs in Vaccination experiments

#### News Excerpt:

Recently, the CCSEA (Committee for Control and Supervision of Experiments on Animals) has withdrawn its recommendation to employ stray dogs in vaccine trials in India.

This decision came after concerns were raised by the People for the Ethical Treatment of Animals (PETA)-India regarding the scientific and ethical implications of **using stray dogs in vaccination experiments**.

- CCSEA's recommendation contradicted its obligations under the Prevention of Cruelty to Animals Act, 1960, and the Breeding of and Experiments on the Animals (Control and Supervision) Amendment Rules, 2006.
  - The recommendation contrasted with the policies adopted by the EU, UK, US, and Australia, India's counterparts in science and technology.
- PETA India argued that relying on stray dogs in tests cannot accurately predict human responses to vaccines, leading to delays in the approval of effective treatments.
  - The withdrawal of this recommendation represents a positive stride toward safeguarding animal welfare and fostering scientific progress.
- These recommendations would open the floodgates not only for stray dogs but also for other feral animals to be used in experiments, including painful

efficacy and toxicity testing, dissections, and demonstrations.

#### History stands as testimony that What goes around comes around.

During colonial times, street dogs were routinely killed so that their numbers would reduce. Neither did it work then, nor will it work now. One species disappears, and others will fill the space, like mice, rats, cockroaches, etc.

- London plague of 1665 resulted from the killing of 2.5 lakh dogs and cats.
  - The mice population grew, and the black death pandemic wiped out 70% of the human population. A similar incident of plague happened in Surat as a result of removing dogs.
- The "Smash the Sparrow" campaign of China was one of the causes of the Great Chinese Famine of 1959-1961. The authorities did not consider that sparrows eat worms and insects, indirectly impacting agriculture. Thus, the mass killing of sparrows led to an increase in the population of worms, which wiped out the crops, leading to famine. Crops were destroyed because sparrows did not eat worms, and the entire food chain was impacted. After this incident, China imported sparrows from Russia and other countries to restore the food chain.

Thus, no animal should be removed or targeted because every animal has a particular role in the wider food web.

#### What could be the solutions?

- Animal Birth Control (Dogs) Rules (ABC Rules) of 2001 have been recommended by the WHO at the World Organisation of Animal Health as the only way to bring about a sustainable decline in

"He who is cruel to animals becomes hard also in his dealings with men. We can judge the heart of men by his treatment of animals." - Emmanuel Kant

"To my mind, the life of a lamb is no less precious than that of a human being. I should be unwilling to take the life of a lamb for the sake of the human body. I hold that the more helpless a creature, the more entitled it is to the protection by man from the cruelty of man." - M.K. Gandhi

Article 51 A (g)- Fundamental Duty to have compassion for all living creatures.

the dog population and incidents of rabies and aggression in dogs.

- Ms. Maneka Gandhi, a Member of Parliament, has brought forth suggestions such as adopting native dogs. She reiterates that "If one person out of 100 people adopts a dog, there would be no dogs on the road".
- Haryana government has made it compulsory to have a registration for every pet dog and invited penalty for violation. This sets accountability of the owner for any mishap where pet dogs are involved.

#### Value in focus:

**Compassion is one of the foundational values of Civil Services.** From great personalities such as Kant and Gandhi to the Constitution of India, compassion has always played an important part in discussions of how civil servants and human beings should conduct themselves.

The perspective of society towards dogs has changed drastically over the years as they have now become status symbols rather than the "Man's best friend".

- **Compassion towards street dogs, or stray dogs,** is an important aspect of responsible and ethical interaction with animals. Street dogs often face various challenges, including hunger, disease, and exposure to harsh weather. **Showing compassion towards them can make a significant difference in their lives.**
- Some street dogs may be wary or even aggressive due to past mistreatment or trauma. Compassion towards street dogs not only helps alleviate their suffering but also contributes to creating a more compassionate and humane society overall.

**Here are some ways to demonstrate compassion towards street dogs:**

#### Conclusion:

**Compassion as a virtue is considered essential to be a good person.**

- The Supreme Court has even asked the Parliament to "elevate rights of animals to that of constitutional rights, as done by many countries around the world, to protect their dignity and honour".
- The Indian constitution and culture call for compassion for animals, which must be assured to them by the government and the people.

Dogs, or any animal in general, deserve equal respect and an equal chance of survival as that of humankind. Humans must come out of the **Anthropocentric approach to life**, which focuses on how only humans have an intrinsic value attached to them. A middle path between the Anthropocentric approach and the Ecocentric Approach would lead us all to a sustainable future.

#### Advocacy

About the plight of street dogs and for better animal welfare policies.

#### Community participation

Forming local groups or collaborating with animal welfare organizations.

Educate people in your community about responsible pet ownership and the importance of treating all animals, including street dogs, with kindness and respect.

If you can't provide direct assistance, consider making donations to local animal shelters or rescue organizations that work to help street dogs.

#### Spraying and neutering (removal of a non-human animal's reproductive organ)

to help control their population and reduce suffering

#### Medical Care

If a street dog appears injured or unwell, consider seeking veterinary care or providing basic first aid.

#### Food and Shelter

Makeshift shelters or provide blankets to help protect street dogs from harsh weather conditions

#### Kindness

Approach street dogs with care and gentleness. Avoid making sudden movements or loud noises that might scare them.

## ETHICS FOR THE MONTH

### News Excerpt:

Flipkart hiring former CCI officer a breach of trust, says InGovern research.

"Competition is always a good thing. It forces us to do our best. A monopoly renders people complacent and satisfied with mediocrity."

### What is the case?

The Competition Commission of India (CCI) has been actively investigating e-commerce players, both Amazon and Flipkart, since 2020, focusing on **allegations of market monopolization and anti-competitive practices**. The CCI took action against Amazon in some cases, particularly in the case of Cloudtail and other in-house sellers. On the other hand, Flipkart has also been investigated for similar links to platform sellers, which is prohibited under the new e-commerce rules of India.

### Ethical Aspects Involved:

#### 1. Conflict of Interest:

A conflict of interest occurs when an individual is faced with a situation where s/he can exercise a choice between personal interests and professional responsibilities. Such a conflict occurs when someone has a vested interest, such as money, status, etc. Every choice demands the person in question to be unbiased and remain truthful to the organization they work in.

Some examples of a conflict of interest could be:

- Advising a client to invest in a company owned by your spouse.
- Hiring an unqualified relative or friend, etc.

Here, it is alleged that the former CCI officer was a part of the investigation, which involved Flipkart as an accused party. The fact that he joined the same company later leaves a possibility that he was in touch with Flipkart before retirement. With this, the whole investigation could potentially become biased. Thus, the research house has demanded an unbiased round of inquiry from the Ministry of Finance and the CCI.

When such a situation arises, the party with the conflict of interest is usually asked to recuse themselves from the decision, and it is often morally and legally expected of them as well. Some of the other ways to do away with the Conflict of Interest are:

1. Independent Oversight: Establishing an independent oversight body or committee that reviews and monitors potential conflicts of interest in the public sector.

2. Cooling-off Periods: Enforcing cooling-off periods, where public servants must wait for a specific duration before joining the private sector or engaging in activities that may create a conflict of interest.
3. Training and Education: Providing comprehensive training and education programs for public servants to increase awareness about conflicts of interest, ethical decision-making, and prioritizing public interest.

#### 2. Breach of Trust: Public Duty to serve the interests-

If any allegations are proven true against the officer, it becomes a breach of his public duty. The foremost duty of an officer is to be unbiased in the investigations he is involved in. With every biased view he brings to the table, he breaches the trust of the Indian taxpayers, his organization as well as the Government of India as a whole.

Other ethical concerns related to the Breach of Trust in Public Service include: opacity, self-aggrandizing, corruption, lack of accountability, authoritarianism, ineffectiveness and inefficiency.

#### 3. Question on the Integrity and Impartiality of the Investigation:






The transition of the officer from the CCI to Flipkart poses a potential threat to the integrity and impartiality of the whole investigation. Every officer should focus on transparency and be ready for close public scrutiny. The integrity of the decision-making should not be prejudiced on any account.

### In summary:





- Ethical conduct in any organization should be of paramount importance.
- An employee's mistake could bring down the whole organization's working culture and the image they had strived to build for years.
- All stakeholders, in this case, must cooperate to bring out the truth.
- The organization, here CCI, must create a culture of clear communication of the policy concerning how any conflict of interest must be managed.
- Any breach of trust must be taken very seriously to set an example for anything similar.






The Government must ensure that after this issue has come to light, the truth sees the light of the day as soon as possible. It must fix accountabilities and make sure it upholds the public trust placed in them.

## SPECIES IN NEWS

Species	Why In News	Remarks
<b>Rafflesia flower</b> 	<p>One of the 42 species of Rafflesia (the largest flower in the world) is facing the risk of extinction.</p> <p><b>Protection Status:</b> IUCN: Critically Endangered</p>	<p><b>Geographical Range/ Habitat:</b> Tropical Forest of Southeast Asia. Primarily Brunei, Indonesia, Malaysia, Philippines, and Thailand.</p> <p><b>Unique Feature:</b></p> <ul style="list-style-type: none"> <li>It is a parasite known as the Corpse flower.</li> <li>Famous for their overwhelming decaying odour.</li> </ul>
<b>King Cobra</b> 	<p>Genera is currently under Earth's ongoing 6th mass extinction.</p> <p><b>King Cobra:</b> IUCN: Vulnerable</p>	<ul style="list-style-type: none"> <li>King Cobra: Rain forests and Plains of India, Southern China and South-East Asia.</li> </ul>
<b>Gharial crocodile</b> 	<p>Genera is currently under Earth's ongoing 6th mass extinction.</p> <p><b>Gharial:</b> IUCN: Critically Endangered WPA: Schedule 1 CITES: Appendix 1</p>	<p><b>Geographical Range/ Habitat:</b></p> <ul style="list-style-type: none"> <li>Gharial: The Natural Habitat of Gharial is freshwater of Nepal and India.</li> </ul> <p><b>Unique Features:</b></p> <ul style="list-style-type: none"> <li>The population of Gharial is an indicator of clean water.</li> <li>Other Extinct Species: <ul style="list-style-type: none"> <li>Elephant birds &amp; sloth lemurs of Madagascar</li> <li>The Tasmanian tiger, the flightless moa of New Zealand.</li> <li>The Yangtze River dolphin, the passenger pigeon of North America</li> <li>The saddle-backed giant the tortoise of Rodriguez Island in the Indian Ocean.</li> </ul> </li> </ul>
<b>Sloth Bear</b> 	<p>Ratanmahal Sanctuary (Gujarat) Hosts Sloth Bears.</p> <p>IUCN: Vulnerable WPA: Schedule 1 CITES: Appendix 1</p>	<p><b>Geographical Range/ Habitat:</b></p> <ul style="list-style-type: none"> <li>They are native to India, Bhutan, Nepal and Sri Lanka.</li> <li>They inhabit both Dry and moist deciduous Forests and Grasslands.</li> </ul> <p><b>Unique Features:</b> Out of the total eight species, four – Asiatic Black Bear, Sloth Bear, Brown Bear and Sun Bear – are found in India.</p>
<b>Mithun</b> 	<p>Food Safety and Standards Authority (FSSAI) has recognized Mithun with a "food animal" tag to promote its meat for commercial purposes.</p> <p>IUCN: Vulnerable CITES: Appendix 1</p>	<p><b>Unique Features:</b></p> <ul style="list-style-type: none"> <li>It is also called Gayal.</li> <li>It is also known as "Cattle of Mountain."</li> <li>State animal of Arunachal Pradesh and Nagaland.</li> <li>ICAR (Indian Agricultural Research Institute) launched the M-ANITRA app to register Mithun farmers as "buyers" and "sellers" to help them do business at competitive prices.</li> </ul> <p><b>Geographical Range/ Habitat:</b> Endemic in Northeast India (Arunachal Pradesh, Nagaland, Manipur and Mizoram), Bangladesh, Myanmar, China, Bhutan</p>



<p><b>Gurnard fish</b></p> 	<p>The scientists of the Zoological Survey of India (ZSI) discovered a new species of gurnards from Digha Mohana in West Bengal. IUCN: Least Concerned</p>	<p><b>Unique Features:</b></p> <ul style="list-style-type: none"> <li>Commonly called 'Sea Robbins'.</li> <li>Vibrant Orange coloured fish.</li> <li>Distinct pectoral fin with black membranes on the inner surface, white posterior margin, and three small white spots basally in the fin.</li> </ul>
<p><b>Fish Mint/ Chameleon Plant</b> (Scientific name: <i>Houttuynia Cordata</i>)</p> 	<p>This herb tastes and smells like Fish with medicinal properties and health benefits.</p>	<p><b>Geographic Habitat:</b></p> <ul style="list-style-type: none"> <li>Native of Southeast Asia.</li> <li>Endemic in Northeast India: Manipur, Assam, Arunachal Pradesh, Meghalaya</li> <li>Found in China, Vietnam, Japan, and Nepal.</li> </ul> <p><b>Unique Feature:</b></p> <ul style="list-style-type: none"> <li>Grows in moist soil and is resistant to flooding.</li> <li>Local names: Meghalaya- ja mardoh, Manipur- tokning-khok, Assam-masunduri, etc.</li> <li>Its medicinal properties and documented in ancient texts of Chinese and Japanese medicine and Ayurveda and Siddha schools.</li> </ul> <p><b>Medicinal properties:</b> used to treat asthma; reduce body weight, epididymal fat, and insulin resistance; prevent pneumonia, acute respiratory distress syndrome, and infectious oral diseases; as an ingredient of cosmetics.</p>
<p><b>Vibrio Vulnificus</b></p> 	<p>The marine bacterium could become a major threat to the coastal population.</p>	<ul style="list-style-type: none"> <li>This marine bacterium naturally lives in warm, salty or brackish water.</li> <li><b>Rise with climate change:</b> Warmer oceans create a more welcoming environment for the bacteria and increase the frequency of hurricanes and people's exposure to floodwaters.</li> <li>This is capable of causing necrotizing fasciitis ("flesh-eating" infection). It eats away the skin, muscles, nerves, fat and blood vessels around infected wounds, bites or cuts in contact with seawater.</li> <li>People are exposed to the bacteria while eating or preparing raw seafood.</li> </ul>
<p><b>Conocarpus (Saptarni or buttonwood) Trees</b></p> 	<p>Gujarat Government bans its planting due to environmental and health hazards.</p>	<p><b>Habitat:</b></p> <ul style="list-style-type: none"> <li>It is a hardy, exotic, evergreen mangrove species found in shorelines and riverbeds in subtropical and tropical regions.</li> </ul> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li>Pollinates twice a year- Rise in diseases like cold, cough, asthma, allergy etc.</li> <li>Roots go deep inside the soil and develop extensively- Damage telecommunication lines, drainage lines and freshwater systems.</li> <li>Water-guzzler- sucks in soil moisture and speeds up the evaporation process.</li> <li>Doesn't serve any purpose in enriching biodiversity other than beautification — no birds nest in it.</li> <li>They are not palatable for wild herbivores or domestic animals.</li> <li>Invasive- overpower indigenous species over time.</li> </ul>

<p><b>Damselfly</b></p> 	<p>A new damselfly species has been discovered in Kerala's southern Western Ghats.</p>	<p><b>Geographical Range/ Habitat:</b></p> <ul style="list-style-type: none"> <li>• Its only habitat is primary montane streams, where it thrives beneath dense canopy cover.</li> </ul> <p><b>Unique Feature:</b></p> <ul style="list-style-type: none"> <li>• It is named 'Armageddon reedtail' or protosticta armageddonia after climate change's impact on insects.</li> <li>• This name is a direct reference to the term 'ecological armageddon'- used to describe the devastating decline of insect populations around the world.</li> <li>• This phenomenon, also called insect apocalypse, affects entire ecosystems because insects pollinate, cycle nutrients and provide food for other animals.</li> </ul>
<p><b>Vilayati Kikar (Prosopis Juliflora)</b></p> 	<p>The National Security Guard replaces invasive Vilayati kikar using the Miyawaki Technique, with other local trees to regreen the 5km Manesar campus.</p>	<p><b>Geographical Range/ Habitat:</b></p> <ul style="list-style-type: none"> <li>• Native species to: Mexico, South America and the Caribbean.</li> <li>• Invasive weed in: Africa, Asia, Australia.</li> </ul> <p><b>Unique Feature:</b></p> <ul style="list-style-type: none"> <li>• The most common invasive species found are: Subabool, Lentana, Jal kumbhi, Gajar Ghas.</li> <li>• It has weedlike properties such as fast growth in arid conditions, killing any competition and water-table depletion.</li> <li>• It is counterproductive to cut it down. It can regenerate from the root.</li> <li>• About the Miyawaki technique: It involves planting two to four different types of indigenous trees within every square meter.</li> <li>• The trees become self-sustaining and grow to their full length within three years without regular maintenance like manuring and maintenance.</li> </ul>
<p><b>Talapia</b></p> 	<p>Talapia Parovirus (TiPV) was reported for the first time in Tamil Nadu among the farm bred Talapia fish</p>	<p><b>Geographic Range/ Habitat:</b></p> <ul style="list-style-type: none"> <li>• Freshwater fish inhabiting in shallow ponds, streams, ponds, and rivers, are less commonly found in brackish water.</li> <li>• Native to Africa and the Levant region.</li> </ul> <p><b>Unique Feature:</b></p> <ul style="list-style-type: none"> <li>• TiPV is a DNA virus that causes mortality ranging from 30% to 50% in the farm and 100% mortality in the laboratory.</li> <li>• It is called "poor man's fish."</li> <li>• It is an invasive species.</li> <li>• It can survive in low oxygen.</li> </ul>
<p><b>Bufoides bhupathyi (New toad species)</b></p> 	<p>A new toad species found in Dampa Tiger Reserve (Mizoram). <b>IUCN:</b> Critically Endangered</p>	<ul style="list-style-type: none"> <li>• Only found in the Dampa Tiger reserve of Mizoram as of now.</li> <li>• Named after S Bhupathy (Herpetologist).</li> </ul>
<p><b>African Elephant</b></p> 	<p><b>African Elephant:</b> IUCN: Vulnerable</p>	<ul style="list-style-type: none"> <li>• African Elephant: Southern and Eastern African countries, including Botswana, Zimbabwe, Tanzania, Kenya, Namibia, Zambia, and South Africa</li> <li>• Elephants are led by a female matriarch.</li> </ul>

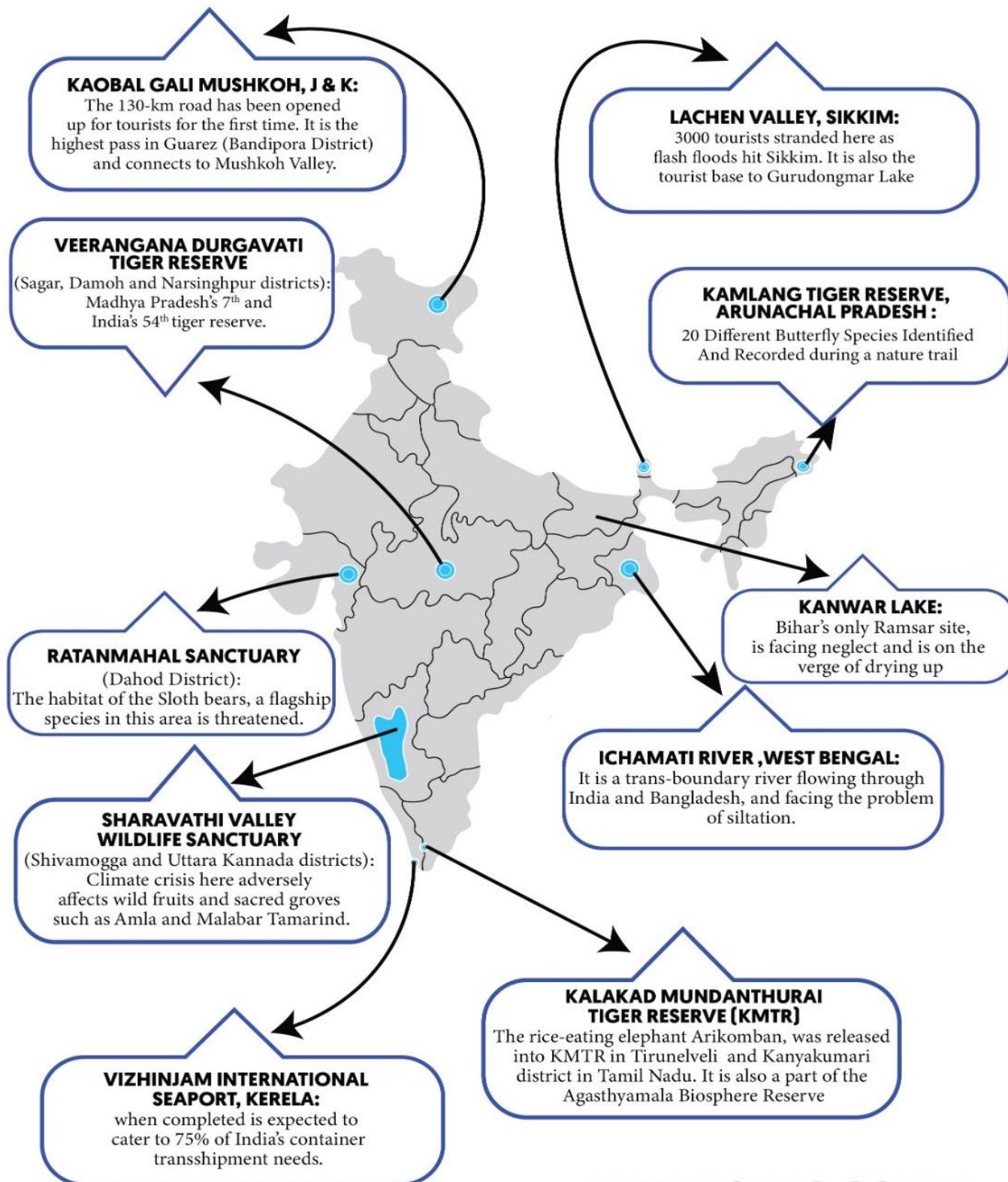
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## MAP CONNECT

## India:

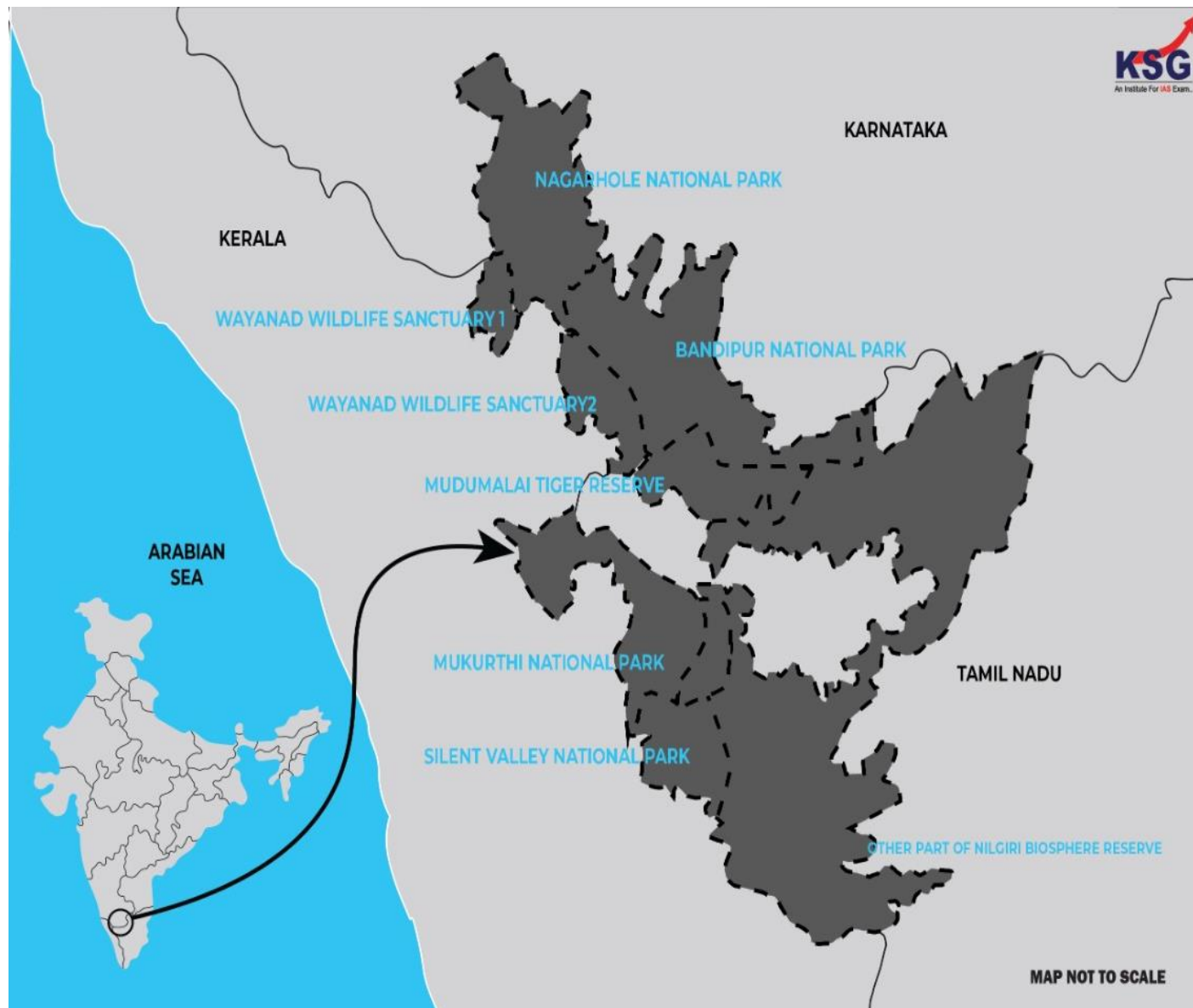
## Places in News



MAP NOT TO SCALE

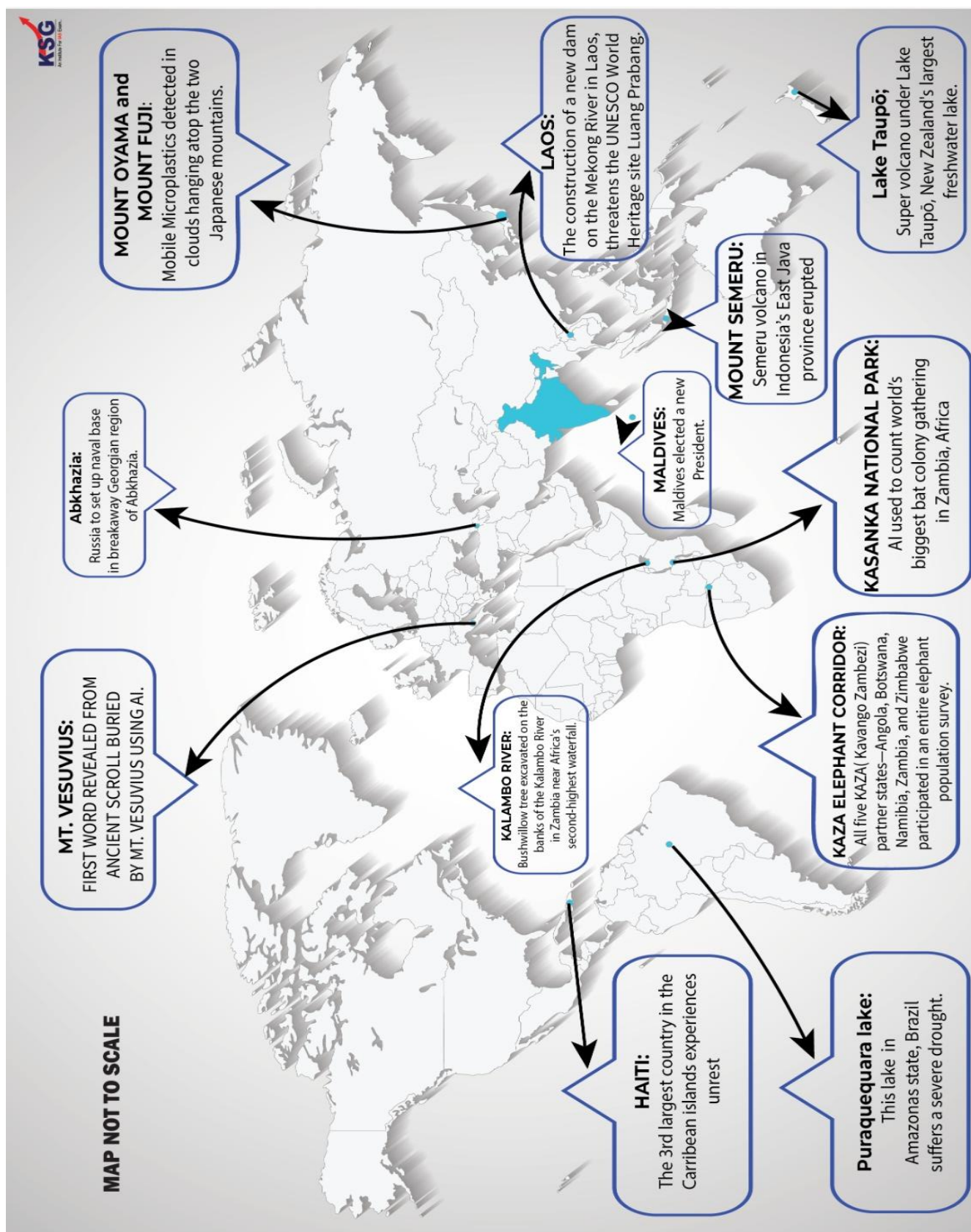


Nilgiri Biosphere Reserve



## World

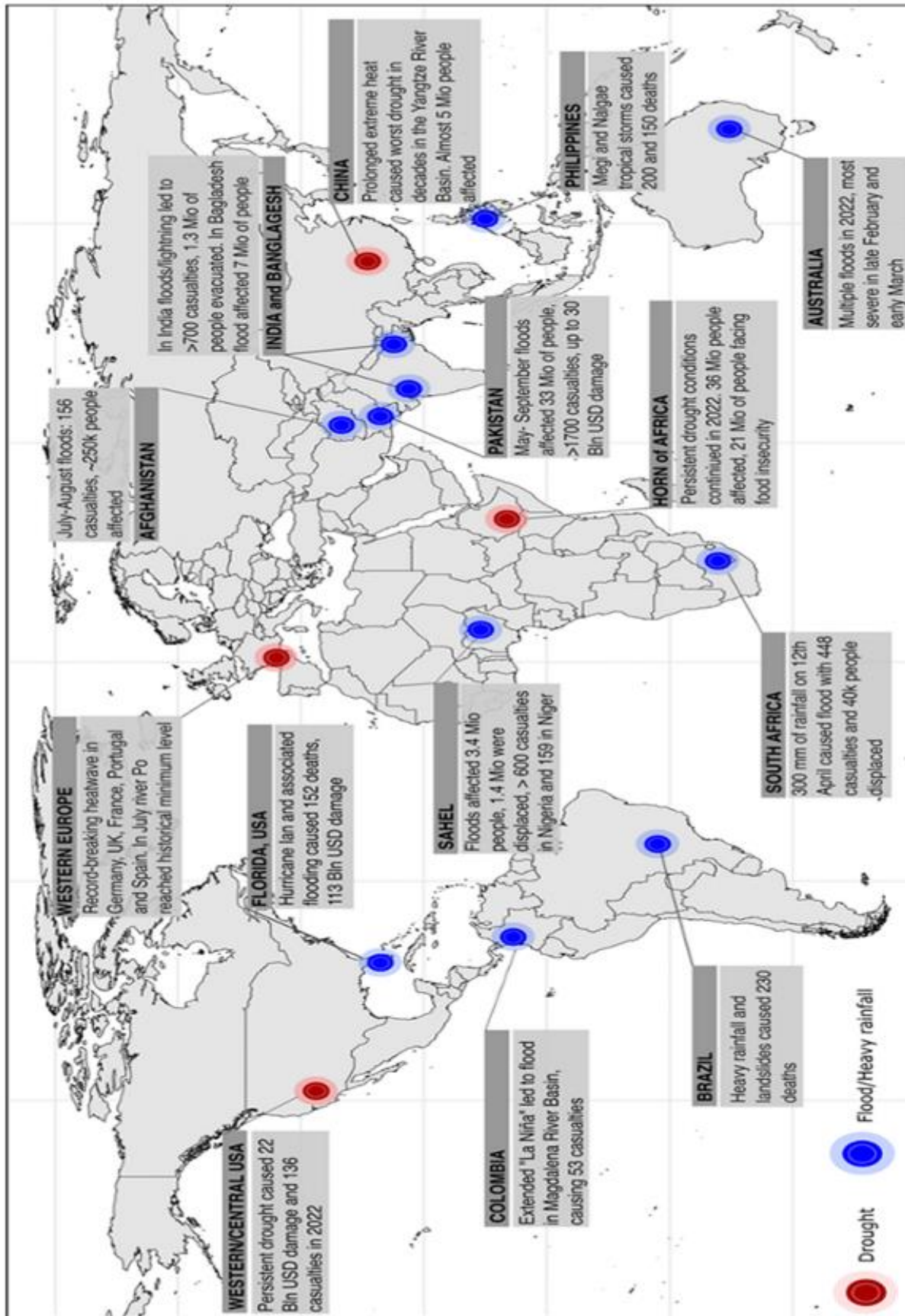
## Places in News







High-Impact Hydrological Events Across The Globe



Sources: WMO Global State of the Climate Report 2022, EM-DAT, 2023; World Bank; ReliefWeb and others



## THEMATIC ESSAYS

1. **Necessity is blind until it becomes conscious. Freedom is the consciousness of necessity.**
2. **The time is always right to do what is right.**
3. **Good Governance is not just about effective policies; it is about fostering trust, Inclusivity, and participation in decision-making.**



## CONCEPT CLEARING ASSIGNMENT

1. Discuss the economic and strategic interests of India in the Middle-East. Do you think there is a need for India's mediation in the ongoing **Israel-Palestine conflict** and what are the lessons that India can learn from this **conflict**?
2. Why is **Delimitation** considered crucial for fair and equitable elections? Mention the challenges surrounding the Delimitation Exercise.
3. Discuss the issues faced by the **Higher Education Institutions** in the implementation of NEP 2020. Suggest measures to further improve the Higher Education Infrastructure in the country.
4. "**Parliamentary privileges** balance the need for legislators to express their opinions and faster decision making with the concerns associated with misuse of power and disturbing the decorum of the houses." Comment.
5. Analyze the role of the **106<sup>th</sup> Constitution Amendment Act** in addressing the issue of under-representation of women in legislatures.
6. Discuss the key contributions of **Dr. M.S. Swaminathan** to the Green Revolution. Also, highlight their impact on India's food security and rural development.
7. What do you understand by **Circular Migration**? Do you think putting restrictions on it will help the host countries economically? What must be done to ensure the safety and security of migrants?
8. "The self-reinforcing downward spiral of the doom loop in **India-Canada relations** will continue to ensnare both countries." Comment
9. In light of the inconsistency faced by renewable energy, examine the **role of the Gravity-based energy storage system** as a solution to global switching to renewable energy.
10. The **phosphorus** is an essential element for life, playing a crucial role in various biochemical processes. Discuss the significance of phosphorus in agriculture, the environment, and human health.
11. Who is **Claudia Goldin**? Discuss causes women to join the workforce and also causes them to leave it.
12. What do you understand by **illicit trade**? Discuss the strategies and measures that governments can employ to combat illicit trade effectively while balancing the need for legitimate commerce and trade facilitation.
13. What are **hybrid seeds**? Identify the factors behind the increasing demand of hybrid seeds in India.
14. What is **global debt**? Analyze the implications of rising global debt and suggest measures to manage sustainable debt management.
15. Discuss the role of **Social Audit Units in MGNREGS**. Mention the challenges faced by them and suggest some steps to make MGNREGS more inclusive and empowering.

## PT ORIENTED QUESTION

## 1. With reference to the Caste Census, Consider the following statements:

1. The last data on the caste composition of the Indian population is from the 1941 census.
2. Since independence, the census only took into consideration the number of SCs and STs.
3. Caste census is under the administrative control of the Ministry of Home Affairs.

How many of the above statements are correct?

- (a) Only one                      (b) Only two  
(c) All three                      (d) None

## 2. With reference to the Women Reservation Act, consider the following statements:

1. This Act now provides for reservation of 33% of seats in the Parliament and state assemblies for women.
2. Reservation will be implemented after the new census and delimitation.
3. The act does not include horizontal reservation for women from scheduled castes (SC) and scheduled tribes (ST) within the women's quota.

Which of the statements given above is/ are correct?

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

## 3. Geeta Mukherjee Committee and Jayanti Natarajan Committee, sometimes seen in the news, are associated with:

- (a) Reserving seats for women in Parliament.  
(b) Considering the possibility of granting SC status to non-Hindus.  
(c) Fiscal relations between the centre and states.  
(d) Recommending reforms in the functioning of the legislature.

## 4. With reference to the Protection of Women from Sexual Harassment (POSH) Act, 2013, consider the following statements:

1. Appointment of a district officer is mandatory under the POSH Act.
2. He/ She shall monitor the timely submission of reports furnished by the Local Committee.
3. This officer can engage non-governmental organisations for public awareness.

Which of the statements given above is/ are correct?

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

## 5. With reference to the Delimitation Commission, consider the following statements:

1. The President on the advice of the Election Commission of India determines the authority for readjustment of seats for elections.

2. Delimitation commission which is responsible for readjustment of assembly seats is a statutory body.

3. Delimitation of constituencies in India is based on the 1991 census.

How many of the above statements are correct?

- (a) Only one                      (c) Only two  
(d) All three                      (d) None

## 6. With reference to the conduct of members of Parliament, consider the following statements:

1. Parliamentary Committee on Privileges in respective houses is responsible for the formulation of Code of Conduct for members.
2. Currently only Rajya Sabha maintains a 'Register of Member's Interests' where a member has to declare his/her pecuniary interests.
3. The 'Register of Member's Interests' is out of the ambit of the Right to Information Act, 2005.

How many of the above statements are correct?

- (a) Only one                      (b) Only two  
(c) All three                      (d) None

## 7. With reference to Simultaneous Elections, consider the following statements:

1. The synchronized cycle of simultaneous elections in India was first broken in Kerala.
2. Article 356 of Indian Constitution, was used in 1959 to break the synchronized cycle of simultaneous election.

Which of the following above is/are correct?

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

## 8. With reference to Indian polity, consider the following statements:

1. When a legislature adjourns sine die, it signifies the legislative body has concluded its meeting without setting a day or time to reconvene.
2. The Presiding officer of the house has the power of adjournment sine die.
3. Adjournment sine die is not applicable in the case of Rajya Sabha.

How many of the above statements are correct?

- (a) Only one                      (b) Only two  
(c) All three                      (d) None

## 9. With reference to the Delimitation Commission, consider the following statements:

1. The last delimitation exercise only involved redrawing constituencies' boundaries.
2. Its orders have the force of law and cannot be called into question before any court.

3. It has been constituted four times through the executive order.

How many of the above statements are correct?

- (a) Only one (b) Only two  
(c) All three (d) None

**10. Consider the following statements:**

**Statement-I:**

Delimitation guards against gerrymandering.

**Statement-II:**

Delimitation seeks to divide the geographical areas and seat boundaries fairly.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.  
(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I.  
(c) Statement-I is correct but Statement-II is incorrect.  
(d) Statement-I is incorrect but Statement-II is correct.

**11. With reference to the Collective parliamentary privileges, consider the following statements:**

1. The courts are prohibited from inquiring into the proceedings of a House.
2. It can only punish members for breach of its privileges, whereas outsiders will be punished by the court.
3. It extends to certain non-members, like the Attorney General of India or a Minister.

How many of the above statements are correct?

- (a) Only one (b) Only two  
(c) All three (d) None

**12. With reference to the Individual parliamentary privileges, consider the following statements:**

1. No member is liable to any proceedings in any court for anything said or any vote given by him in Parliament.
2. They can refuse to give evidence and appear as a witness.
3. Protection from arrest lies in civil and preventive detention cases.

How many of the above statements are not correct?

- (a) Only one (b) Only two  
(c) All three (d) None

**13. With reference to the 106th Constitution Amendment Act, consider the following statements:**

1. It provides 1/3rd reservation for women in Parliament and State Legislatures.

2. It provides quota to women of SC/ST and OBC communities.

3. It is to be enforced only after an exercise of delimitation.

How many of the above statements are correct?

- (a) Only one (b) Only two  
(c) All three (d) None

**14. With reference to the 106th Amendment Act, consider the following statements:**

1. The reservation will continue for 15 years.
2. Seats reserved will be rotated after each delimitation exercise.

Which of the following statements given above is/are **incorrect**?

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

**15. Among the agricultural commodities imported by India, which one of the following accounts for the highest imports in terms of value in the last five years?**

- (a) Spices (b) Fresh fruits  
(c) Pulses (d) Vegetable oils

**16. The Coffee Board a statutory organization constituted by the Coffee Act of 1942, functions under which ministry?**

- (a) Ministry of Commerce and Industry  
(b) AYUSH Ministry  
(c) Horticulture department under Ministry of Agriculture and Farmers Welfare  
(d) Ministry of External Affairs

**17. With reference to Israel, consider the following statements:**

1. It is bound by the Mediterranean Sea in the west, the Dead Sea to the east, and the Red Sea via the Gulf of Aqaba to the south.
2. The climatic conditions of Israel have hot and rainy summers and cool and dry winters.
3. Israel shares a similar parliamentary system of governance like India where the Prime Minister is the head of government while The President is the head of state.

Which of the above statements is/are correct?

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

**18. With reference to the India Brazil South Africa (IBSA) group, consider the following statements:**

1. The grouping was formalized and named the IBSA Dialogue Forum when the Foreign Ministers of the three countries met in Sao Paulo on 6 June 2003 and issued the Sao Paulo Declaration.
2. The presidency of the group is held via rotation and is currently headed by Brazil.

3. The grouping recently completed 22 years of its formation.

Which of the above statements is/are incorrect?

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

19. Serengeti and Tarangire National Park, recently seen in the news is located in which country?

- (a) Nigeria (b) Namibia  
(c) Kenya (d) Tanzania

20. It is the third largest country in South America and home to the famous and mysterious city of Andes i.e. Machu Picchu. Which country has been described here?

- (a) Peru (b) Brazil  
(c) Ecuador (d) Columbia

21. With reference to Illicit Trade, consider the following statements:

**Statement-I:**

Illicit trade is understood as the selling of goods in violation of national and/or international laws.

**Statement-II:**

Illicit trade can occur both in black markets and in legitimate markets.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.  
(c) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I.  
(c) Statement-I is correct but Statement-II is incorrect.  
(d) Statement-I is incorrect but Statement-II is correct.

22. Consider the following statements with reference to the Nobel Prize in Economic Sciences 2023:

1. Claudia Goldin was awarded for an experimental approach to alleviating global poverty.
2. She has provided the first comprehensive account of women's earnings.
3. She also noted that only about 50 percent of all women are actively seeking work.

Which of the statements given above is/are correct?

- (a) Only one (b) Only two  
(c) All three (d) None

23. With reference to the Project Mariana, consider the following statements:

**Statement-I**

Project Mariana involved the Bank for International Settlements (BIS) and the Central Banks of France.

**Statement-II**

Project Mariana pioneers the use of novel technology for interbank domestic exchange markets only.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.  
(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I.  
(c) Statement-I is correct but Statement-II is incorrect.  
(d) Statement-I is incorrect but Statement-II is correct.

24. The Global Innovation Index - 2023 is published by:

- (a) World Intellectual Property Organisation  
(b) World Economic Forum  
(c) World Trade Organisation  
(d) United Nations

25. Consider the following pairs:

Species	IUCN Status
King Cobra	Vulnerable
Gharial Crocodile	Critically Endangered
African Elephant	Least Concerned

How many of the above pairs are correctly matched?

- (a) Only one (b) Only two  
(c) All three (d) None

26. With reference to the Quantum Mechanics, consider the following statements:

1. It is the science dealing with the behaviour of matter and light on the atomic and subatomic scale.
2. Quantum number defines position and energy of an electron in an atom.
3. According to Pauli's Principle, in a single atom two electrons will not have a varying quantum number.

Which of the statements given above is/are correct?

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

27. "It depends on the vertical movement of a heavy object in a gravitational field to store or release electricity. This technology accomplishes energy storage by converting the electrical energy in the power system to the gravitational potential energy of the weight through electromechanical equipment".

Which of the emerging technologies is being mentioned here?



- (a) Quantum Engine
- (b) Water lift-up system
- (c) Hyperloop
- (d) Gravity Battery

**28. With reference to the *Vibrio cholerae*, consider the following statements:**

1. It is a short, gram-negative, rod-shaped bacterium that appears curved when isolated.
2. It is a member of the family Vibrionaceae, which includes three medically important genera of water-dwelling bacteria.
3. It attacks the small intestine as it secretes the enterotoxin from its external coating which disturbs the regulation of electrolytes between the intestine and the circulatory system.

Which of the above statements is/are correct?

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

**29. With reference to the White Phosphorus, consider the following statements:**

1. White phosphorus is pyrophoric that ignites when exposed to oxygen, producing thick, light smoke as well as intense 815-degree Celsius heat.

2. Pyrophoric substances are those that ignite spontaneously or very quickly (under five minutes) when in contact with air.
3. White phosphorus is a chemical weapon under the Chemical Weapons Convention (CWC).

Which of the statements given above is/are correct?

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

**30. With reference to the Air Defence Systems, consider the following statements:**

1. Iron Dome is an Israeli mobile all-weather Air Defence System.
2. S-400 is a French mobile all-weather air defence system.
3. India has placed the order for the S-400 air defence system manufactured by Rafale corporation.

Which of the above statements is/are correct?

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

## ANSWER KEY

1. (b)
2. (b)
3. (a)
4. (d)
5. (a)
6. (c)
7. (b)
8. (b)
9. (b)
10. (a)

11. (b)
12. (a)
13. (d)
14. (d)
15. (d)
16. (a)
17. (d)
18. (c)
19. (d)
20. (a)

21. (a)
22. (b)
23. (c)
24. (a)
25. (b)
26. (a)
27. (d)
28. (d)
29. (c)
30. (a)

**DELHI**  
VIJAY NAGAR

2521, 1<sup>st</sup> FLOOR HUDSON LANE,  
NEAR GTB NAGAR METRO STATION,  
VIJAY NAGAR CHOWK,  
DELHI - 110009

📞 97173 80832 | 📞 88605 88805

**BENGALURU**  
KORAMANGALA

A1, 2<sup>nd</sup> FLOOR, MAMMOOR PLAZA,  
ABOVE AIRTEL OFFICE,  
2<sup>nd</sup> CROSS ROAD,  
5<sup>th</sup> BLOCK KORAMANGALA,  
BENGALURU - 560095

📞 76191 66663 | 📞 080-4854 4393

**BHOPAL**  
M.P. NAGAR

PLOT NO. 48, 1<sup>st</sup> & 2<sup>nd</sup> FLOOR,  
BEHIND SARGAM TALKIES,  
ZONE-II M.P. NAGAR, BHOPAL,  
MADHYA PRADESH - 462011

📞 75099 75361 | 📞 91798 95361

**PATNA**  
EXHIBITION ROAD

ABOVE TOYOTA SHOWROOM,  
CEAT COMPOUND, EXHIBITION ROAD,  
NEAR GANDHI MAIDAN, PATNA - 800001

📞 74639 50774 | 📞 0612-2500 961

**JAIPUR**  
TONK ROAD

403-404, 4<sup>th</sup> FLOOR, APEX TOWER,  
LAL KOTHI, TONK ROAD,  
JAIPUR - 302015

📞 82908 00441 | 📞 0141-4052 441

**MUMBAI**  
OSHIWARA  
OFF CAMPUS CENTRE

OFFICE NO. 42, 2<sup>nd</sup> FLOOR,  
OM HEERA PANNA CO-OPERATIVE SOCIETY,  
OPPOSITE CITY INTERNATIONAL SCHOOL,  
OSHIWARA, JOGESHWARI (WEST),  
MUMBAI - 400102

📞 987126 5599 | 📞 882600 2521

**DELHI**  
RAJENDER NAGAR

56/4 GROUND FLOOR & 32,  
BADA BAZAAR ROAD,  
OLD RAJENDER NAGAR,  
DELHI - 110060

📞 98112 93743 | 📞 011-4517 0303

**HYDERABAD**  
HIMAYATNAGAR

2<sup>nd</sup> FLOOR, HOUSE NO:- 3-6-111/7&6,  
ABOVE PUMA SHOWROOM,  
LIBERTY MAIN ROAD, HIMAYATNAGAR,  
HYDERABAD - 500029

📞 79960 66663 | 📞 040-4859 0715

**INDORE**  
BHAWAR KUAN SQUARE

111-117, 1<sup>st</sup> FLOOR, VEDA BUILDING,  
BHAWAR KUAN SQUARE, INDORE,  
MADHYA PRADESH - 452001

📞 9893 772941 | 📞 0731-4977 441

**KOLKATA**  
SALT LAKE

COLLEGE MORE, PTI BUILDING,  
2<sup>nd</sup> FLOOR, SECTOR - V, SALT LAKE,  
KOLKATA WEST BENGAL 700091

📞 90077 09895

**IMPHAL WEST**  
KEISAMTHONG HODAM LEIRAK  
OFF CAMPUS CENTRE

2<sup>nd</sup> FLOOR, KEISAMTHONG HODAM LEIRAK,  
THOUDABHABOK MACHIN, IMPHAL WEST,  
MANIPUR - 795001

📞 965024 5599

**SRINAGAR**  
BAGHAT  
OFF CAMPUS CENTRE

4<sup>th</sup> FLOOR, CHINAR HEIGHTS,  
NEAR CHINAR COLONY, BAGHAT,  
SRINAGAR, J&K - 190005

📞 987123 5599

**we are a hardworking team, those who are willing to work hard should join us...**

**Please Note: We do not know any short cut to success.**