



# DAILY CURRENT AFFAIRS

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## Changes About Cyclone Formation: Study

**Syllabus: GS 1/Geography**

### **In News**

- A study just published in the journal Climate and Atmospheric Science reported a sharp change in the potential for **cyclones to form over the Arabian Sea** during the **late 1990s**.

### **About Cyclones**

- The word **Cyclone** is derived from the **Greek** word **Cyclos** meaning the coils of a snake.

- It was coined by **Henry Peddington** because the **tropical storms** in the **Bay of Bengal** and the **Arabian Sea** appear like coiled serpents of the sea.
- They are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation.
- They are usually accompanied by violent storms and bad weather.
- The air circulates inward in an **anticlockwise direction** in the **Northern hemisphere** and **clockwise** in the **Southern hemisphere**.

### Do you know ?

- Cyclones are given many names in different regions of the world – They are known as **typhoons** in the **China Sea** and **Pacific Ocean**; **hurricanes** in the **West Indian islands** in the **Caribbean Sea and Atlantic Ocean**; **tornados** in the Guinea lands of **West Africa** and southern USA.; **willy-willies** in north-western **Australia** and **tropical cyclones** in the Indian Ocean.

### Classification

- Cyclones are classified as:
  - Extra tropical cyclones (also called temperate cyclones) and
  - Tropical cyclones.

### Highlights of recent study

- Cyclone-genesis – or cyclogenesis – is an indicator that denotes the chance of a cyclone forming.
- It depends on some parameters, including the **sea surface temperature**, the **ocean heat content**, **change in winds** from the surface into the upper atmosphere (or the vertical shear), and **rotation of winds** near the surface.
- All these factors except for wind rotation have seemingly favoured a higher cyclone formation potential since the 1990s.
- The present study notes that the rapid increase in the cyclogenesis potential over the Arabian Sea coincides with a shift in the so-called '**Warm Arctic, Cold Eurasian**' (**WACE**) **pattern**.
  - WACE is a pattern of warm surface temperatures over the Arctic and a large blob of cold surface temperatures over Eurasia.
    - This pattern is associated with upper level circulation changes that reach into the Indian Ocean sector.
- Global warming also experienced a slowdown around the same time (although this continues to be debated).
  - More interestingly, scientists have argued that a so-called '**regime shift**' occurred in the same period as well.
- Still there is a doubt that these are really trends, or are they shifts or decadal cycles.

### Impacts and Challenges

- Numerous studies have reported trends in various climate variables over the Indian subcontinent.
- A decreasing trend in the amount of monsoon rainfall for more than six decades is one. Others include intensifying trends in the occurrence of extreme rainfall events, droughts, heatwaves, and cyclones.

- The expectations with which we invest in resources to adapt to future climate risks are vexed by many difficulties, including those arising from uncertainties in climate risk at the level of specific regions across the country, vis-a-vis sea-level rise, heavy rain, drought, heatwaves, and cyclones.
  - Of course, given our limited financial resources, climate adaptation remains a considerably monumental socioeconomic and political challenge.

### Suggestions

- Instead of always focusing on predicting what climate change will look like in 2100 or training our tunnel vision on global warming targets, we need to better understand the natural variability in our own neighbourhood – especially since natural variability itself is modulated by global warming.
- It is critical to understand whether cyclones are becoming common and/or more intense, if they are a part of a decadal oscillation or if their numbers have jumped to a new state.

### Do you know?

- A **shift** is a jump from one state to another, such as a quick transition from one amount of rainfall to another.
  - The best example is seasonal monsoon rainfall
- A common term used by climate scientists these days is ‘**anthropogenic trend**’.
  - ‘Trend’ of course implies that there are climate variables moving in one direction, like the continuous increase in temperature.
  - The ‘anthropogenic’ suffix presumes that these trends are occurring within human lifetimes.
- Climate scientists also use the term ‘**secular trend**’, which is to say that a variable has been increasing for a certain period within a longer span, such as for 30 years in a 100-year period.
- There is ‘**decadal variability**’, a common term that isn’t entirely distinct from a shift.
  - **Decadal variability** refers to an oscillation from a positive to a negative phase on the order of tens of years.

Source: [TH](#)

## R21/Matrix-M malaria vaccine

Syllabus:GS3/Science and Technology, GS2/ Health

### News

- The **R21/Matrix-M malaria vaccine** has been recommended for use by the World Health Organisation (WHO).

### About


- The vaccine has been developed by the **University of Oxford and the Serum Institute of India**, leveraging Novavax’s adjuvant technology.

- To date the R21/Matrix-M malaria vaccine has been licensed for use in **Ghana, Nigeria and Burkina Faso**.
- The R21 vaccine is the second malaria vaccine recommended by WHO, following the **RTS,S/ASo1 vaccine**, which received a WHO recommendation in **2021**.
- The R21 and RTS,S vaccines act against **P. falciparum**, the **deadliest malaria parasite** and the most prevalent on the African continent.

## War against malaria gets a shot in the arm

Three countries — Nigeria, Ghana, and Burkina Faso — have already approved the vaccine for children aged less than 36 months

- A phase-3 trial in 4,800 children was conducted at five sites in four countries with different malaria transmission intensities and seasonality
- The participants received three vaccine doses four weeks apart, and a booster shot at the end of 12 months after the last dose
- Primary vaccination was carried out prior to malaria season where it is seasonal or at any time of year in countries where malaria is perennial
- Vaccine efficacy at the end of one year in children aged 5-36 months was 75% where malaria is seasonal and 68% when malaria is perennial
- In children aged 5-17 months, who are more likely to die due to severe malaria, the vaccine efficacy was higher — 79% where malaria is seasonal and 75% where malaria is perennial
- In children aged 18-36 months, vaccine efficacy was 73% where malaria is seasonal and 63% when malaria is perennial
- The vaccine efficacy was well maintained to 18 months with a single booster dose given 12 months after the primary series

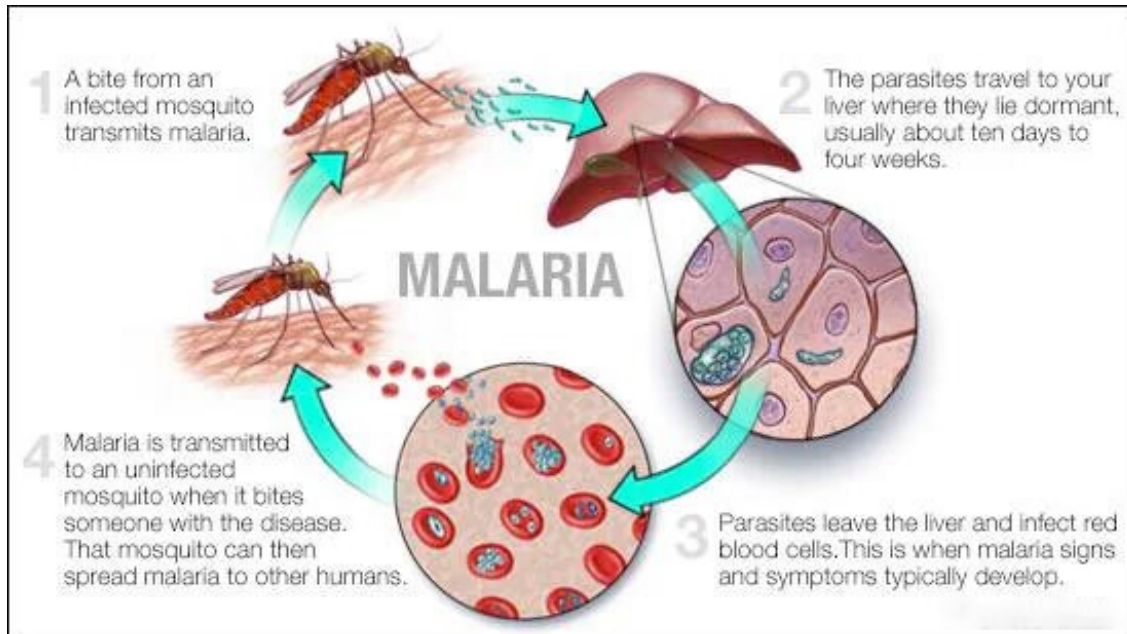


**Humongous:**  
In 2021, there were 247 million malaria cases worldwide and 6,19,000 deaths

### What is Malaria?

- **Malaria** is a life-threatening disease spread to humans by some types of mosquitoes. It is mostly found in tropical countries.
- **Transmission:** It is caused by **plasmodium protozoa**. The plasmodium parasites spread through the bites of infected female Anopheles mosquitoes. Blood transfusion and contaminated needles may also transmit malaria.
- **Types of parasites:** There are 5 Plasmodium parasite species that cause malaria in humans and 2 of these species – **P. falciparum** and **P. vivax** – pose the greatest threat. The other malaria species which can infect humans are **P. malariae**, **P. ovale** and **P. knowlesi**.

- **P. falciparum is the deadliest malaria parasite** and the most prevalent on the African continent. *P. vivax* is the dominant malaria parasite in most countries outside of sub-Saharan Africa.
- **Symptoms:** Fever and flu-like illness, including chills, headache, muscle ache and fatigue.



### Disease burden

- According to the World malaria report, there were **247 million** cases of malaria in **2021** compared to 245 million cases in 2020. The estimated number of **malaria deaths stood at 619 000 in 2021** compared to 625 000 in 2020.
- Four African countries accounted for just over half of all malaria deaths worldwide: **Nigeria (31.3%), the Democratic Republic of the Congo (12.6%), United Republic of Tanzania (4.1%) and Niger (3.9%).**

### Initiatives to control Malaria by WHO

- **The WHO's Global technical strategy for malaria 2016–2030** aims to reduce malaria case incidence and mortality rates by at least 40% by 2020, at least 75% by 2025 and at least 90% by 2030 against a 2015 baseline.
- **'E-2025 Initiative':** The WHO has identified 25 countries with the potential to eradicate malaria by 2025 under the initiative.
- **High Burden to High Impact (HBHI) initiative:** WHO has initiated the initiative in 11 high malaria burden countries, including India.

### Indian government Initiatives to Control Malaria:

- The Government of India set a target to **eliminate malaria in India by 2027.**
- In India, a **National Framework for Malaria Elimination (NFME)** has been developed and launched in **2016** aligned with the Global Technical Strategy (GTS) for malaria elimination **2016-2030.**

- **Malaria Elimination Research Alliance-India (MERA-India):** It was established by the Indian Council of Medical Research (ICMR) as a conglomeration of partners working on malaria control.

Source:[TH](#)

## Electoral Bonds

**Syllabus: GS2/Government Policies and Interventions**

### News

- The Supreme Court recently said that it will hear petitions **challenging the electoral bonds scheme.**

### About

- The 2018 scheme introduced instruments through which **money could be donated to political parties** in India.
- Later on, a petition was filed by NGOs, Common Cause and Association for Democratic Reforms (ADR) challenging the scheme.

### What is Electoral Bonds Scheme?

- Announced in the 2017 Union Budget, electoral bonds are **interest-free bearer instruments used to donate money anonymously to political parties.**
- Such bonds, which are **sold in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore**, can be bought from authorised branches of the **State Bank of India (SBI).**
- The political parties can **choose to encash such bonds within 15 days** of receiving them and fund their electoral expenses. If a party hasn't encashed any bonds within 15 days, SBI deposits these into the **Prime Minister's Relief Fund.**
- There is **no limit on the number of bonds an individual or company can purchase.**
- **Rationale:** It aims to **establish a transparent method of funding political parties** which is vital to the system of **free and fair elections.**
  - Political parties continue to receive **most of their funds through anonymous donations** which are shown in cash.

### Why is the scheme facing a legal challenge and what are its larger criticisms?

- The scheme is challenged as “**an obscure funding system which is unchecked by any authority**”.
- Also, before the electoral bonds scheme was announced, there **was a cap on how much a company could donate to a political party: 7.5 per cent of the average net profits of a company** in the preceding three years.

- However, the government removed this limit by amending the **Companies Act, 2013, opening the doors to unlimited funding by corporates.**
- This amendment to the Companies Act may lead to **“private corporate interests taking precedence over the needs and rights of the people of the State in policy considerations”.**
- The **anonymity of donors under the scheme further makes the process opaque** instead of meeting its aim of bringing about transparency.
- It has been also claimed that because such bonds are sold via a **government-owned bank (SBI)**, it leaves the door open for the **government to know exactly who is funding its opponents.**
  - Critics have highlighted that **more than 75 percent of all electoral bonds have gone to the ruling party at centre in 2022.**
- Further, one of the arguments for introducing electoral bonds was **to allow common people to easily fund political parties** of their choice but **more than 90% of the bonds have been of the highest denomination (Rs 1 crore) as of 2022.**

### Way Ahead

- It is to be seen what decision the Supreme court takes on the issue. But, In the case of continuance of the Scheme, **the principle of anonymity of the bond donor must be done away with.**
- The bonds should ensure that the **funds being collected by the political parties are accounted for clean money**, thereby fulfilling the tenets of free and fair elections.

Source: [IE](#)

## Protocol for Management of Malnutrition in Children

**Syllabus:GS2/ Welfare measures for vulnerable sections of society**

### News

- The Union Minister for Women and Child Development has launched the Protocol for Management of Malnutrition in Children at Anganwadi

### About

- **The Protocol provides detailed 10-step guidelines** for identification and management of malnourished children at the Anganwadi level.
- **The guidelines include** growth monitoring, appetite testing, nutritional management of malnourished children and follow up care of children who manage to achieve requisite growth parameters after intervention.

- **Buddy mother:** It includes initiatives like the “Buddy mother” which was first used in the state of **Assam**. Under this scheme, the mother of a healthy baby guides the mother of a malnourished child at an Anganwadi center every week.
- **Significance:** Until recently, treatment of children with Severe Acute Malnutrition (SAM) was considered to be restricted to facility-based approaches. Now for the first time, a standardized national Protocol has been drafted, providing detailed steps for identification and management of malnourished children.

### **What is Malnutrition?**

- Malnutrition refers to deficiencies or excesses in nutrient intake, imbalance of essential nutrients or impaired nutrient utilization.
- The term malnutrition covers 2 broad groups of conditions and these are;
  - **Undernutrition:** It includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals).
  - **Overweight:** It includes obesity and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes and some cancers).

### **Reports on Malnutrition in India**

- **Global Hunger Index (GHI) 2022:** India ranked **107 out of 121** countries in the Global Hunger Index (GHI) 2022. The GHI is an important indicator of nutrition, particularly among children, as it looks at stunting, wasting and mortality among children, and at calorific deficiency across the population.
- **National Family Health Survey (NFHS-5):** NFHS-5 (2019-21) reported that in children below the age of five years, **35.5%** were stunted, **19.3%** showed wasting, and **32.1%** were underweight.

### **Government initiatives to address Malnutrition**

- **Saksham Anganwadi and Poshan 2.0:** 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 and by creation of a convergent eco-system to develop and promote practices that nurture health, wellness and immunity.
- **PM-POSHAN scheme (mid-day meal scheme):** 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.

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



# Habitat Rights

**Syllabus: GS2/ Governance, Tribal Issues**

## News:

- The **Baiga Particularly Vulnerable Tribal Group (PVTG)** recently became the second to get habitat rights in the state, after the **Kamar PVTG**.

## About:

- A total of **19 Baiga villages with a population of 6,483 people** (2,085 families) have been given the habitat rights.
- **The Baiga community** primarily resides in Rajnandgaon, Kawardha, Mungeli, Gaurela-Pendra-Marwahi (GPM), and Bilaspur districts of **Chhattisgarh** and also in the adjacent districts of **Madhya Pradesh**.

## What are Habitat Rights?

- Habitat rights recognition **provides the community concerned rights** over their
  - customary territory of habitation,
  - socio-cultural practices,
  - economic and livelihood means,
  - intellectual knowledge of biodiversity and ecology,
  - traditional knowledge of use of natural resources, as well as
  - protection and conservation of their natural and cultural heritage.
- Habitat rights **safeguard and promote traditional livelihood and ecological knowledge** passed down through generations
- They also **help converge different government schemes** and initiatives from various departments **to empower PVTG** communities to develop their habitats.
- Habitat rights are given to PVTGs under **section 3(1) (e) of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** also known as the Forest Rights Act (FRA).
- According to Section 2(h) of FRA, “**Habitat includes the area comprising the customary habitat** and such other habitats in reserved forests and protected forests of primitive tribal groups and pre-agricultural communities and other forest dwelling Scheduled Tribes.”

## Can habitat rights be used to stop activities like mining?

- Yes, the **habitat rights will help the PVTG protect their habitat from developmental activities harmful to them**.
- The title may **not be an ownership title** in the nature of a private property owner, but **consent and consultation of the gram sabha will be needed for any developmental activity**.
- **Forest Rights have legal protection** under the Forest Conservation Act, the Land Acquisition law of 2013, and even the SC/ST Prevention of Atrocities Act.

Grant of habitat rights under the Forest Rights Act provide an additional layer of legal protection.

- If any kind of development activity is hampering their habitat rights, the **tribal group concerned can take up the matter with the administration** under the Forest Rights Act, and if not resolved, the matter can be taken to court.

### **How many states have recognised habitat rights?**

- **Out of 75 PVTG in India, only three have habitat rights.** The **Bharia PVTG in Madhya Pradesh** was the first, followed by the **Kamar tribe and now the Baiga tribe** in Chhattisgarh.
- **Based on the MoTA guidelines**, the traditional tribal leaders of the tribe are consulted about the extent of their culture, traditions, occupation. It is corroborated by the government and then a habitat is declared.

### **Particularly Vulnerable Tribal Groups (PVTGs):**

- PVTGs are the **most marginalized and extreme backward sections among Scheduled Tribes (STs).**
- **The criteria for identifying Particularly Vulnerable Tribal Groups are: -**
  1. Pre-agricultural level of technology,
  2. Low level of literacy,
  3. Economic backwardness,
  4. A declining or stagnant population.
- **History of PVTGs: Dhebar commission (1960-61)** identified that there is inequality among tribal communities in terms of socio-economic development.
  - In 1975, **acting on the Dhebar Commission report**, the government identified Primitive Tribal Groups (PTGs) **as a separate category** and listed 52 tribal groups as PTGs.
  - Later, in 1993, more tribal groups were added to the list. As per 2001 census, there are **75 Particularly Vulnerable Tribal Groups (PVTGs)** with a total population of 27,68,322, living in 18 States and Union Territory.
  - In 2006, PTGs were renamed as **Particularly Vulnerable Tribal Groups (PVTGs).**
  - **In six States** namely, Madhya Pradesh, Chhattisgarh, Maharashtra, Jharkhand, Andhra Pradesh and Tamil Nadu, **the PVTGs constitute more than 77% of their total population covering 38 out of the 75 PVTGs.**
  - Among the 75 listed PVTG's **the highest number are found in Odisha.**
- The **Saharia tribe of Madhya Pradesh and Rajasthan** is the largest among PVTGs, with a population of more than 4 lakhs.

### **Conclusion:**

- PVTGs are **one of the most vulnerable sections** of the country. Therefore, **there is a need for taking steps for the empowerment** of such tribal

groups.

- However, it needs to be kept in mind that while taking such steps, the **autonomy of the tribes is not disturbed and affirmative action is taken while keeping their uniqueness in mind.**

Source: [IE](#)

# The State of India's Scheduled Areas

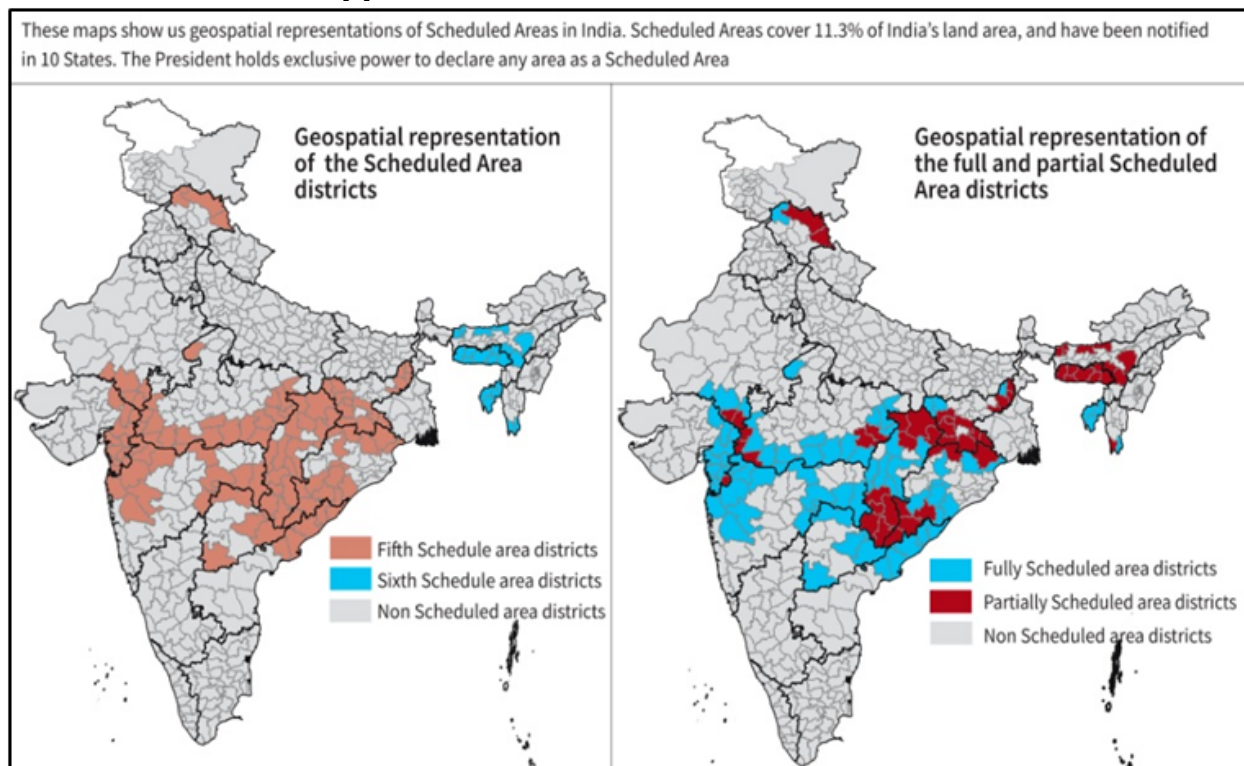
## **Syllabus: GS2/Government Policies & Interventions**

### **In News**

- Despite persistent demands by Adivasi organisations, villages have been left out in the 10 States with Scheduled Areas and in other States with ST populations.

### **Scheduled Areas & Constitutional provisions in India**

- **Scheduled Tribe (ST) communities:** India's 705 Scheduled Tribe (ST) communities — making up 8.6% of the country's population — live in 26 States and six Union Territories.
- **Scheduled Areas:** Scheduled Areas cover 11.3% of India's land area, and have been notified in 10 States: Andhra Pradesh, Telangana, Odisha, Jharkhand, Chhattisgarh, Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, and Himachal Pradesh.
- **Article 244:** Pertaining to the administration of Scheduled and Tribal Areas, Article 244 is the single most important constitutional provision for STs.
  - **Article 244(1)** provides for the application of Fifth Schedule provisions to **Scheduled Areas** notified in any State other than Assam, Meghalaya, Tripura, and Mizoram.
  - The Sixth Schedule applies to these States as per **Article 244(2)**.
  - The **Fifth Schedule under Article 244(1)** of Constitution defines **Scheduled Areas**. On the other hand, the **Sixth Schedule under Article 244 (2)** of the Constitution defines **Tribal areas**.



### **Governance of Scheduled Areas**

- **Notification of the Scheduled Areas:** The President of India notifies India's Scheduled Areas.

- The court has observed that the declaration of a Scheduled Area is “within the exclusive discretion of the President”.
- **Tribal Advisory Council:** States with Scheduled Areas need to constitute a Tribal Advisory Council with up to 20 ST members.
  - They will advise the Governor on matters referred to them regarding ST welfare.
  - The **Governor will then submit a report every year** to the President regarding the administration of Scheduled Areas.
- **Role of national government:** The national government can give directions to the State regarding the administration of Scheduled Areas.
- **Role of Governor:** The Governor can **repeal or amend any law** enacted by **Parliament** and the **State Legislative Assembly** in its application to the Scheduled Area of that State.
  - The Governor can also **make regulations** for a Scheduled Area, especially to prohibit or restrict the transfer of tribal land by or among members of the STs, and regulate the allotment of land to STs and money-lending to STs.
- **Identification of the Scheduled Areas:** Neither the Constitution nor any law provides any criteria to identify Scheduled Areas.
  - However, based on the **1961 Dhebar Commission Report**, the guiding norms for declaring an area as a Scheduled area are —
    - Preponderance of tribal population;
    - Compactness and reasonable size of the area;
    - A viable administrative entity such as a district, block or taluk; and
    - Economic backwardness of the area relative to neighbouring areas.

### Issues & challenges

- **Exclusion of areas:** Delay in Indian government’s approval for proposals by the State governments.
  - Despite persistent demands by Adivasi organisations, villages have been left out in the 10 States with Scheduled Areas and in other States with ST populations.
  - As a result, 59% of India’s STs remain outside the purview of Article 244.
  - They are denied rights under the laws applicable to Scheduled Areas, including the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 and the Biological Diversity Act 2002.
- **Demands for denotification:** There has also been demand for the denotification of parts of Scheduled Areas where STs are now a minority due to the influx of non-tribal individuals.
  - The powerful provisions, authority, and special responsibility vested with Governors, with the President’s oversight, have largely remained a dead letter.
- **Non-inclusion of areas:** The 2002 Scheduled Areas and Scheduled Tribes Commission had recommended that “all revenue villages with 40% and more tribal population according to the 1951 Census may be considered as Scheduled Area (sic) on merit”.

- The Ministry of Tribal Affairs communicated this to the States in 2018 for their consideration, but elicited no response.

### **Suggestions & way ahead**

- All habitations or groups of habitations outside Scheduled Areas in all States and Union Territories **where STs are the largest social group** will need to be notified as Scheduled Areas **irrespective of their contiguity**.
  - Compactness of an area means that all the proposed villages need to be contiguous with each other or with an existing Scheduled Area. If not, they will be left out.
  - But contiguity is not a mandatory demarcating criterion.
- The geographical limit of these villages will need to be extended to **the ‘community forest resource’ area** on forest land under the FRA 2006 where applicable, and to the customary boundary within revenue lands made possible through suitable amendments to the relevant State laws.
- Finally, the geographical limits of the revenue village, panchayat, taluka, and district will need to be redrawn so that these are fully Scheduled Areas.

### **Enactment of PESA**

- **About:** It was only when Parliament enacted the provisions in various laws applicable to Scheduled Areas, including the **Panchayats (Extension to Scheduled Areas) Act**, or PESA, in 1996 that the **intent of the Constitution** and the Constituent Assembly was actualized.
- **Need of the Act:**
  - The **73rd and the 74th Amendments** to the Indian Constitution passed in **1992** took the **three-tier Panchayati Raj governance structure to rural and urban parts of the country**
    - It came into force in April **1993**.
  - However, **scheduled areas**, predominantly inhabited by the **tribal population**, were **exempted** from the new amendments.
  - Given **low human development indicators**, there was a huge demand to empower local governance in the scheduled area as well.
  - Thus Parliament enacted special legislation called **Panchayat (Extension to Scheduled Areas) Act (PESA) in 1996**
    - It came into force on 24th December **1996**.
- **Empowerment of gram sabhas:**
  - **State panchayat laws** had empowered the elected panchayat bodies, rendering the gram sabhas moot.
  - But **PESA empowered the gram sabhas** to exercise substantial authority through direct democracy, and stated that structures “at the higher level do not assume the powers and authority” of the gram sabha.
- **Defining ‘village’ & ‘gram sabha’:**
  - The Act defined a ‘village’ as ordinarily consisting of “a habitation or a group of habitations, or a hamlet or a group of hamlets comprising a community and managing its affairs in accordance with traditions and customs”.
  - All those “whose names are included in the electoral rolls” in such a village constituted the gram sabha.

Source: [TH](#)

# WHO Report on Mental Health of Refugees and Migrants

**Syllabus: GS2/Health**

## **In News**

- The fifth report of the **Global Evidence Review on Health and Migration (GEHM)** series has been released by the **World Health Organisation (WHO)**.

## **About**

- It has been titled as ‘**Mental Health of Refugees and Migrants: Risk and Protective Factors and Access to Care**’.
- It focuses on the **mental health needs of refugees and migrants** by providing an overview of the available evidence on patterns of risk and protective factors and of facilitators and barriers to care at all levels (individual, family, community and national government).

## **Overview of Mental Health Terms**

- **Mental disorder:** A syndrome characterized by a clinically significant disturbance in cognition, emotional regulation or behaviour that reflects dysfunction in the psychological, biological or developmental processes that underlie mental and behavioural function.
- **Mental health:** A state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well, work well and contribute to their communities.
- **Psychosocial disability:** A disability that arises when someone with longterm mental impairment interacts with various barriers (e.g. discrimination, stigma and exclusion) that may hinder their full and effective participation in society on an equitable basis.

## **Overview of migration terms**

- **Asylum seeker:** A person who is seeking international protection. Prior to being granted legal status in the destination country, refugees are termed asylum seekers. Not all asylum seekers will be granted refugee status.
- **Internally displaced person:** Someone who has been forced to flee from their home to avoid conflict, violence and disasters and has moved within an internationally recognized state border.
- **Migrant:** A migrant is an “umbrella term, not defined under international law, reflecting the common lay understanding of a person who moves away from his or her place of usual residence, whether within a country or across a border, temporarily or permanently, and for a variety of reasons”.

- **Refugee:** According to the 1951 United Nations Convention, refugees are individuals living outside their countries of origin who are in need of international protection because of feared persecution, or a serious threat to their life, physical integrity or freedom in their country of origin.
  - Refugees have legal permission to remain in the host country and may have access to health care, education and welfare benefits.

### **Major Highlights of the Review**

- The year 2021 had **258 million international migrants**. However, there are three times more internal migrants than international migrants, but there is a lack of data.
  - By the end of 2021, the total number of forcibly displaced people was 89.3 million, of whom 53.2 million were internally displaced people, 27.1 million were refugees and 4.6 million were asylum seekers.
- **One in five people** (22.1 per cent) in conflict-affected areas may experience depression, anxiety, Post Traumatic Stress Disorder (PTSD), bipolar disorder, or schizophrenia.
- **Region wise:** Among refugees based in high-income countries, those originally from the Middle East and North Africa had a threefold higher risk of psychotic disorders compared with refugee groups from other geographies.
- **Unaccompanied or Separated Children (UASC)** – found that those originating **from Afghanistan and Iraq** had a higher risk of mental disorders compared with their peers from other countries.
- **Gender Wise: Girls and women have a higher risk** of depression and anxiety than boys and men.
- **Younger Migrants and Refugees:** Behavioural disorders may be **more common among younger refugee and migrant children**, which are significantly more severe in younger (6-14 years) compared with older (15-17 years) age groups.
  - Prolonged stay in an asylum centre was associated with a 30-fold increase in the risk of psychopathology among children aged 11-16 years.
- Refugees and migrants who identify as **LGBTQI+** were affected in terms of their mental health, including when transgender women were held in male facilities.

### **Factors Responsible**

- **Social exclusion and discrimination** in countries in which migrants choose to make their home are contributing factors.
- Being stuck in a state of limbo, with a **pending or rejected asylum application** had a 1.76-fold higher risk of depressive symptoms than those whose application had been approved.
- **Language barriers** were a factor preventing the correct dissemination of awareness and giving a diagnosis.



## Recommendations

- Implement policies and programmes for refugees and migrants that **promote their social integration**, their participation in society and reduce anti-migrant sentiment and discrimination.
- Ensure that migrant policies recognize and address the **social determinants of mental health and prioritize basic needs**, including food, housing, safety, and education or employment.
- Strengthen the **capacity of health care workers** to assess and treat mental health conditions among refugees and migrants from diverse cultural backgrounds.
- Safeguard the **human rights of all refugees and migrants** regardless of legal status by strengthening national and international policies and criminal justice measures that protect migrants from discrimination and violence.

Source: [DTE](#)

## Facts In News

### mRNA vaccines

#### Syllabus:GS3/Science and Technology

#### News

- The 2023 Prize in Medicine being awarded for discoveries concerning nucleoside base modifications that enabled the development of effective mRNA vaccines against COVID-19.

#### What are mRNA vaccines?

- **mRNA, stands for messenger RNA**, is a form of nucleic acid which carries genetic information. The vaccine attempts to activate the immune system to produce antibodies that help counter an infection from a live virus.
- **Working:**The mRNA vaccine does not expose individuals to the virus itself. It introduces a piece of the genetic material that corresponds to a viral protein. This is usually a protein found on the membrane of the virus called spike protein.
- **Significance:** mRNA offers strong safety advantages. As the minimal genetic construct, it harbors only the elements directly required for expression of the encoded protein.”

#### Advantages of mRNA vaccine

- The mRNA vaccine only needs the genetic code, hence it is possible to update vaccines to emerging variants and use them for a variety of diseases.

- mRNA are only a sheet of instructions to make spike proteins wrapped in a lipid (or a fat molecule) to keep it stable. An mRNA-lipid unit most closely mimics how a virus presents itself to the body, except that it cannot replicate like one.

### **Concerns**

- The mRNA is very fragile and will be shredded apart at room temperature or by the body's enzymes when injected. To preserve its integrity, the mRNA needs to be wrapped in a layer of oily lipids, or fat cells.
- A challenge with mRNA vaccines is that they need to be frozen from **-90 degree Celsius to -50 degree Celsius.**

### **Different Types of Vaccines**

- **Live-attenuated vaccines:**
  - Live-attenuated vaccines inject a weakened ,live version of the germ or virus that causes a disease into the body.
  - This type of vaccine works by allowing a virus or germ to reproduce enough for the body to make memory B-cells, which generate an immune response against it.
  - The vaccine is used to create immunity against Measles, mumps,and rubella (MMR combined vaccine),Rotavirus ,Smallpox,Chickenpox ,Yellow fever.
- **Inactivated vaccines:**
  - An inactivated vaccine uses a strain of a bacteria or virus that has been killed with heat or chemicals. This dead version of the virus or bacteria is then injected into the body.
  - Inactivated vaccines do not offer lifelong immunity and need topping up over time,but have less side effects.
  - The vaccine is used to create immunity against Hepatitis A,Flu ,Polio,Rabies etc.
- **Subunit, recombinant, conjugate, and polysaccharide vaccines:**
  - vaccines use particular parts of the germ or virus. They can trigger very strong immune responses in the body because they use a specific part of the germ.
  - These types of vaccines are used to create immunity against the Hepatitis B, Human papillomavirus (HPV), Pneumococcal disease.
- **Toxoid vaccines:**
  - Toxoid vaccines use toxins created by the bacteria or virus to create immunity to the specific parts of the bacteria or virus that cause disease, and not the entire bacteria or virus.
  - Toxoid vaccines are used to create immunity against diphtheria and tetanus.

Source:[TH](#)

# Prompt Corrective Action (PCA) Framework

**Syllabus: GS3/Economy**

## **In News**

- The Reserve Bank has decided to extend the **Prompt Corrective Action (PCA) framework** for a **Non-Banking Financial Corporation (NBFCs)**.
  - It has been extended to the **Government owned NBFCs** (except those in Base Layer) with effect from October 1, 2024.

## **What are Non-Banking Financial Corporation (NBFCs)?**

- It is a company registered under the **Companies Act, 1956** engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by Government or local authority or other marketable securities.
- It does not include any institution whose **principal business is that of agriculture activity, industrial activity, purchase or sale of any goods** (other than securities) or providing any services and sale/purchase/construction of immovable property.
- A non-banking institution which is a company and has the **principal business of receiving deposits** under any scheme or arrangement in one lump sum or in installments by way of contributions or in any other manner, is also a non-banking financial company (Residuary non-banking company).
- The functions of the NBFCs are managed by both the **Ministry of Corporate Affairs and the Reserve Bank of India**.

## **What is the difference between banks & NBFCs?**

- NBFCs lend and make investments and hence their activities are akin to that of banks; however there are a few differences as given below:
  - NBFC cannot accept demand deposits;
  - NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself;
  - Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

## **What is PCA Framework?**

- The objective of the PCA Framework is to enable **supervisory intervention** at appropriate time and **require the supervised entity to initiate and implement remedial measures** in a timely manner, so as to **restore its financial health**.
- The NBFCs have been **growing in size** and **have substantial interconnectedness** with other segments of the financial system.

- Accordingly, the RBI in 2022 decided to put in place a PCA Framework for NBFCs **to further strengthen the supervisory tools applicable to NBFCs.**
- The framework is also intended to act as a tool for effective market discipline.

Source: [LM](#)

## A-HELP Program

**Syllabus: GS-3/Economy**

### **Context:**

- The Department of Animal Husbandry and Dairying has launched the ‘**A-HELP (Accredited Agent for Health and Extension of Livestock Production)**’ program in the State of Jharkhand.

### **About the A-Help Program**

- It has been launched through an MoU between the **Department of Animal Husbandry and Dairying (DAHD)** and the **National Rural Livelihoods Mission (NRLM)** under the Ministry of Rural Development (MoRD).
- **Aim:** It seeks to promote livestock health, extension services, and women's empowerment in the region, leading to improved livestock productivity and rural development.
- This program has been initiated across different States/UTs including **Bihar, Gujarat, Jammu and Kashmir, Karnataka, Madhya Pradesh, Uttarakhand, and Jharkhand.**
- It would enhance access to veterinary services at the farmer's doorstep and empower Pashu Sakhis.

#### **Pashu Sakhis**

- They are women residing in rural regions who undergo training to aid livestock health by offering breeding assistance, veterinary care, and medicines to the livestock.

Source: [PIB](#)

## 52nd GST Council Meeting

**Syllabus: GS3/Indian Economy and Issues related to mobilization of resources**

### **News**

- The **52nd GST Council** met under the Chairpersonship of the Union Minister for Finance & Corporate Affairs in New Delhi recently.

### **Outcomes of the meet**

- GST Council recommends amendments in conditions of appointment of President and Member of the proposed **GST Appellate Tribunals** regarding eligibility and age.

- GST rates for **food preparation of millet flour** in powder form, containing at least 70% millets by weight, were specified as follows:
  - 0% when sold in non-pre-packaged and unlabelled form.
  - 5% when sold in pre-packaged and labelled form.
- The GST rate on **molasses was reduced from 28% to 5%.**
- **IGST exemption for Foreign Going Vessels**
- **Changes in GST Rates for Services**
- To keep **Extra Neutral Alcohol (ENA)** used for manufacture of alcoholic liquor for human consumption outside GST

### About GST Council

- In pursuance of the **Goods and Services Act Act 2017 (The Constitution (101st Amendment) Act, 2016)**, the GST council has been notified as a **Constitutional body to decide issues relating to GST.**
- It is a **joint forum of the Centre and the states** which was set up by the President as per **Article 279A (1)** of the amended Constitution.
- **Members:** the **Union Finance Minister (chairperson)**, the Union Minister of State (Finance) from the Centre and **each state can nominate a minister** in-charge of finance or taxation or any other minister as a member.
- **Functions:**
  - It **makes recommendations to the Union and the states** on important issues related to GST, like the goods and services that may be subjected or exempted from GST, tax rates, dispute resolution, etc.
  - It also **decides on various rate slabs of GST.**
- **Recent Supreme Court Judgement:** In May 2022, Supreme Court stated **recommendations of the GST Council are not binding.**
  - The court said **Article 246A of the Constitution gives both Parliament and state legislatures “simultaneous” power to legislate on GST** and recommendations of the Council “are the product of a collaborative dialogue involving the Union and States”.

Source: [PIB](#)

## ABHA-based Scan and Share service

### **Syllabus: GS-2/Health**

#### **Context:**

- Recently, the National Health Authority (NHA) has crossed a major milestone of generating more than 1 crore tokens for OPD registrations using the ABHA-based Scan and Share service.

#### **About ABHA-based Scan and Share service.**

- It was previously known as the **National Digital Health Mission’s Health Records app.**
- This service was launched under the [Ayushman Bharat Digital Mission \(ABDM\)](#).
- This service is a simple tech intervention that allows patients to scan the QR code placed at the **Out-Patient Department (OPD)** registration counter and share their ABHA profile for instant registration.

- It is done to manage the queues at patient registration counters and offer a better service experience to the patients.
- There are various ABDM-enabled smartphone Personal Health Record (PHR) players in the market that allow individuals to create their Ayushman Bharat Health Account (ABHA) number, link and store their health records against their ABHA number and share them with health facilities for various care purposes.
- The hospital's **Health Management Information System(HMIS)** solution consumes this information and generates a token number or queue number for the patients.
- **Benefits:**
  - Reduced waiting time
  - Accurate data about the patients
  - Linked Health Records

Source: PIB

## IPC declared as a member of PDG

### **Syllabus: GS-3/Economy**

#### **Context**

- Recently, the Indian Pharmacopoeia Commission (IPC) was declared a member of the Pharmacopoeial Discussion Group (PDG) during its annual meeting.

#### **About Pharmacopoeial Discussion Group (PDG)**

- It was established in **1989** with representatives from the European Directorate for the Quality of Medicines in the Council of Europe (the European Pharmacopoeia), the Ministry of Health and Welfare—now the Ministry of Health, Labor, and Welfare (MHLW) the Japanese Pharmacopoeia, and the United States Pharmacopoeial Convention, Inc., (the U.S. Pharmacopoeia).
- Pharmacopoeial standards play a critical role in **ensuring public health** by **setting quality standards** for each stage in the drug manufacturing process.
- The purpose of the PDG is to facilitate the **harmonization of pharmacopoeial standards** on a global level.
- PDG strives to maintain a consistent level of science across the pharmacopeias, with the shared goal of protecting public health.
- In May 2001, PDG welcomed the **World Health Organization** as an **observer**.

#### **About Indian Pharmacopoeia Commission (IPC)**

- It is an **Autonomous Institution** of the Ministry of Health and Family Welfare.
- Its basic function is to regularly update the standards of drugs commonly required for the treatment of diseases prevailing in this region.

- It publishes official documents for improving the Quality of Medicines by way of adding new and updating existing monographs in the form of Indian Pharmacopoeia (IP).
- It further promotes the rational use of generic medicines by publishing the National Formulary of India.
- IPC also provides IP Reference Substances (IPRS) which act as a fingerprint for identification of an article under test and its purity as prescribed in IP.

#### **Global Impact of IPC as a PDG Member:**

- **Harmonization of Standards:** It will help IPC to collaborate and harmonize pharmacopoeial standards with other major regulatory/standard-setting authorities which in turn will help in ensuring the quality and safety of pharmaceuticals at a global level.
- **International Recognition:** It has the potential to improve the acceptance of Indian pharmaceutical products in global markets, as they adhere to internationally recognized quality standards.
- **Improved Regulatory Compliance:** IPC will benefit from the exchange of information and best practices with other PDG members. This collaboration will help India in aligning its regulatory processes and practices with global standards.
- **Access to Global Markets:** Membership in the PDG will facilitate enhanced export of Indian pharmaceutical products to other member countries. Aligning with international standards will reduce trade barriers and make it easier for Indian pharmaceutical companies to access global markets.

Source: [PIB](#)

## **Bharat NCX 2023**

### **Syllabus: GS3/Internal Security**

#### **In News**

- Principal Scientific Advisor to the Government of India, inaugurated the 'Bharat NCX 2023'.

#### **About**

- The **2nd Edition** of the **National Cyber Security Exercise 2023** 'Bharat NCX 2023' will be conducted as a hybrid exercise over a period of twelve days from 09 to 20 October 2023.
- **Aim:** To train senior management and technical personnel of Government/Critical Sector organizations and Public and Private agencies on 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 partnership with Rashtriya Raksha University (RRU).

- **Significance:** Bharat NCX India will help strategic leaders to better understand cyber threats, assess readiness, and develop skills for cyber crisis management and cooperation.
  - This will also help develop and test cybersecurity skills, teamwork, planning, communication, critical thinking, and decision-making.

Source: [PIB](#)

## Gangetic River Dolphins

### Syllabus :GS 3/Species in news

#### In News

- A recent publication by scientists and researchers has revealed that 19 Gangetic river dolphins had been rescued from the irrigation canals of the **Ganga-Ghagra basin in Uttar Pradesh between 2013 and 2020.**

#### About Gangetic river dolphins (Platanista Gangetica)

- It is one of the five river dolphins found in the world.
- It can only live in **freshwater** and is essentially blind.
- It feeds majorly on fishes and is usually found in counter current systems of the main river channel.
- It hunts by **emitting ultrasonic sounds** waves that bounce off of fish and other prey.
- Because of the sound it produces when breathing, the animal is popularly referred to as '**Susu**
- **Distribution :** It is distributed in Ganges and Brahmaputra river basins of India, Nepal and Bangladesh.



#### Threats

- Ganges river dolphin is facing severe threats from water development projects, Pollution, hunting and death due to accidental catches in fishing gear.
- Poaching for dolphin oil, used as fish attractant and for medicinal purposes.

#### Conservation status

- The Ganges river dolphin is in **Schedule 1 of the Indian Wildlife (Protection) Act 1972**, Appendix 1 of the Convention on International Trade in Endangered Species (**CITES**) and Appendix 1 of the **Convention on Migratory Species (CMS)**.
- The species, also considered the national aquatic animal, is listed as “**endangered**” on the IUCN Red List.

#### Initiatives

- The **International Whaling Commission’s (IWC)** scientific committee recognised that both Ganges and Indus river dolphins require prompt and coordinated action to protect them from imminent threats.
  - It created the **Asian River Dolphin Task Team (AR-TT)** to identify information gaps and research priorities and develop concerted action for the protection of the Ganges and Indus river species in their range.
- The Ganges river dolphin is important because it is a reliable indicator of the health of the entire river ecosystem.



- The government of India declared it the National Aquatic Animal in 2009.
- Source: [TH](#)

## Dancing Frog

### **Syllabus: GS3/Conservation, Species in News** News

- **The dancing frogs that are endemic to the Western Ghats are the most threatened amphibian genus of India**, according to the Wildlife Trust of India, a nature conservation non-profit.

### Dancing Frogs

- ***Micrixalus kottigeharensis***, commonly called the **Kottigehar Dancing Frog** is **endemic to Western Ghats**.
- **Habitat:** The species are found **near the streams** and prefer **habitats in areas with thick canopy** cover of at least 70-80 per cent.
- **Unique display to mate:** The males stretch up their hind legs one at a time and wave their webbed toes in the air in a rapid motion akin to a dance. This act is called “**foot flagging**” and gives the species their name.
- **Threats:** Multiple **anthropogenic stresses** have impacted the population of the dancing frogs.
  - It is threatened by **invasive species** like the mosquito fish, **land use change, variation in temperature and humidity, extreme weather events** such as floods and excess rainfall, infectious diseases, water pollution, light pollution, and **infrastructure projects** such as dams.
  - Globally, more than **41% of the amphibian species are threatened with extinction**. In India, **139 of the total 426 species were categorised as ‘Critically Endangered’, ‘Endangered’ or ‘Vulnerable’** in the IUCN Red List of Threatened Species.



### Way Ahead

- Frogs are **valuable in the food chain and also provide other ecological services**. Protecting the natural habitats and preserving their optimal living conditions is thus vital to save the last of these species.

Source: [DTE](#)

