NFHS-5 National Report

For Prelims: NFHS-5 National Report.

For Mains: Findings of NFHS-5, Health, Issues related to women, Population and associated issues.

Why in News?

Recently, the National Report of the 2nd phase of fifth round of National Family Health Survey (NFHS-5) was released.

- The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India.

What is the NFHS-5 Report?

- **About:**
  - It comprises **detailed information on key domains of population, health and family welfare and associated domains** like characteristics of the population; fertility; family planning; infant and child mortality; maternal and child health; nutrition and anaemia; morbidity and healthcare; women's empowerment etc.
  - The **scope of NFHS-5 is expanded in respect of the earlier round of the survey (NFHS-4)** by adding new dimensions such as:
    - Death registration, pre-school education, expanded domains of child immunization, components of micro-nutrients to children, menstrual hygiene, frequency of alcohol and tobacco use, additional components of Non-Communicable Diseases (NCDs), expanded age range for measuring hypertension and diabetes among all aged 15 years and above.
  - Thus, NFHS-5 provides information on important indicators which are helpful in tracking the progress of Sustainable Development Goals (SDGs) in the country.
  - The national report also **provides data by socio-economic and other background characteristics;** useful for policy formulation and effective programme implementation.
  - The NFHS-5 National Report **lists progress from NFHS-4 (2015-16) to NFHS-5 (2019-21).**
- **Objective**:
  - The main objective of successive rounds of the NFHS has been **to provide reliable and comparable data relating to health and family welfare** and other emerging areas in India.

What are the Key Highlights of the NFHS-5 National Report?

- **Total Fertility Rate (TFR):**
  - **Overall:**
    - The Total Fertility Rate (TFR), has further **declined from 2.2 to 2.0** at the national level between NNFHS 4 and 5.
    - There are **only five states in India** which are a**bove replacement level of**

fertility of 2.1. These states are **Bihar, Meghalaya, Uttar Pradesh, Jharkhand and Manipur**.
    - Replacement level fertility is the **total fertility rate**—the average number of children born per woman—at which a **population exactly replaces itself from one generation to the next, without migration.**
- **Highest and Lowest Fertility Rate:**
    - Bihar and Meghalaya have the highest fertility rates in the country, while Sikkim and Andaman and Nicobar Islands have the lowest.
- **Area wise:**
    - In **rural areas, TFR has declined** from 3.7 children per woman in 1992-93 to 2.1 children in 2019-21.
    - The **corresponding decline among women in urban areas** was from 2.7 children in 1992-93 to 1.6 children in 2019-21.
- **Community Wise:**
    - **Muslims' fertility rate has seen the sharpest decline** among all religious communities over the past two decades.

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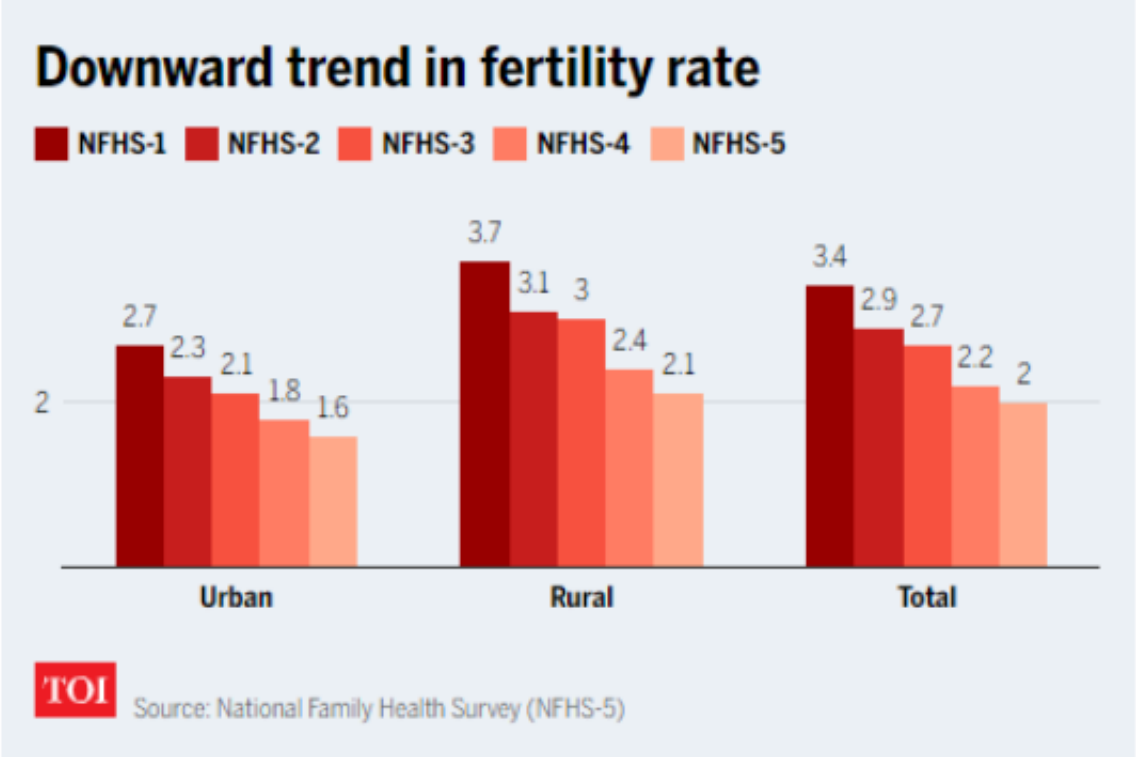


- **Underage Marriages:**
    - **Overall:**
        - National average of underage marriages has come down.
        - According to NFHS-5, **23.3% women surveyed got married** before attaining the legal age of 18 years, down from 26.8% reported in NFHS-4.
        - The figure for underage marriage among men is 17.7% (NFHS-5) and 20.3% (NFHS-4).
- **Highest Surge:**
    - **The rate has increased** in Punjab, West Bengal, Manipur, Tripura and Assam.
    - **Tripura** has seen the **largest jump in marriages** for women from 33.1% (NHFS-4) to 40.1%, and from 16.2% to 20.4% among men.
- **Highest Rate of Underage Marriages:**
    - West Bengal, along with Bihar, remains one of the states with highest rate of underage marriages.
- **Lowest Rate of Underage Marriages:**
    - J&K, Lakshadweep, Ladakh, Himachal Pradesh, Goa, Nagaland, Kerala, Puducherry and Tamil Nadu.

- **Teenage Pregnancies:**
    - Teenage pregnancies are **down from 7.9% to 6.8%.**
- **Use of Contraceptive Method:**
    - **Employment Factor: 66.3% women who are employed** use a modern contraceptive method, compared with 53.4% women who are not employed.
        - Contraceptive use increases in communities and regions that have seen more socioeconomic progress.
    - **Income Factor:** The **"unmet need for family planning methods"** is highest among the lowest wealth quintile (11.4%) and lowest among the highest wealth quintile (8.6%).
        - Use of **modern contraceptives also increases with income** from 50.7% women in the lowest wealth quintile to 58.7% women in the highest quintile.
- **Domestic Violence Against Women:**
    - **Overall:** Domestic violence has **come down marginally from 31.2% in 2015-16 to 29.3% in 2019-21.**
    - **Highest and Lowest (States):**
        - Domestic violence against women is **highest in Karnataka at 48%**, followed by Bihar, Telangana, Manipur and Tamil Nadu.
        - **Lakshadweep has the least** domestic violence at 2.1%.
- **Institutional Births:**
    - **Overall:** It increased from **79% to 89% in India.**
    - **Area Wise:** In **rural areas** around **87%** births being delivered in institutions and the same is **94% in urban areas.**

- **Immunisation Level:**

    - **More than three-fourths (77%) children age 12-23 months** were fully immunised, compared with 62% in NFHS-4.
- **Stunting:**
    - The level of stunting among children under five years has **marginally declined from 38% to 36% in the country** since the last four years.
        - Stunting is higher among **children in rural areas (37%)** than urban areas (30%) in 2019-21.
- **Obesity:**
    - Compared with NFHS-4, the **prevalence of overweight or obesity has increased in most States/UTs in NFHS-5.**
        - At the national level, it **increased from 21% to 24% among women** and 19% to 23% among men.
- **SDG Goal:**
    - **NFHS-5 shows an overall improvement in Sustainable Development Goals** indicators in all States/Union Territories (UTs).
    - The **extent to which married women usually participate in three household decisions** indicates that their participation in decision-making is high.
        - **Household decisions include** health care for herself, making major household purchases, visiting her family or relatives.
        - Participation in decision making rises **ranging from 80% in Ladakh to 99% in Nagaland and Mizoram.**
        - Rural (77%) and urban (81%) differences are found to be marginal.
        - The **prevalence of women having a bank or savings account** that they use has increased from 53% to 79% in the last four years.

Source: TH

International Conference on Disaster Resilient Infrastructure

For Prelims: ICDRI, CDRI.

For Mains: Disaster Management.

Why in News?

Recently, the Prime Minister addressed the inaugural session of the **fourth edition of the International Conference on Disaster Resilient Infrastructure** via video message.

- ICDRI is the annual international conference of the **Coalition for Disaster Resilient Infrastructure (CDRI)** in partnership with member countries, organizations and institutions to strengthen the global discourse on disaster and climate resilient infrastructure.

What is CDRI?

- The **Coalition for Disaster Resilient Infrastructure (CDRI)** is a **multi-stakeholder global partnership** of national governments, **UN (United Nations)** agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions.
    - The **Prime Minister of India launched** CDRI during his speech at the **UN Climate Action Summit** on 23rd September 2019.
- It aims **to promote the resilience of new and existing infrastructure systems** to climate and disaster risks in support of sustainable development.
- **Members:** 30 countries and 8 organizations.
- **Thematic Areas:** Governance and Policy, Risk Identification and Estimation, Standards and Certification, Capacity building, Innovation & Emerging Technology, Recovery and Reconstruction, Finance and Community based approaches.
- The CDRI Secretariat is based in **New Delhi, India.**

How is Disaster Resilient Infrastructure (DRI) different from Climate Resilient Infrastructure (CRI)?

- DRI also includes addressing disaster risk due to geophysical and geomorphological hazards **such as earthquakes, landslides,** tsunami and volcanic activity. Since infrastructure systems are built for long life cycles, **it is imperative that DRI addresses risks emanating from such low-frequency high impact events**.
- DRI must **deal with technological hazards** like nuclear radiation, dam failures, chemical spills, explosions which are **not directly linked to climate.**
- More than 90% of disasters are a **manifestation of weather and climate-related extreme events**. So, making infrastructure climate-resilient also **contributes to making it disaster resilient.**
- Some **CRI efforts may focus on reducing carbon footprint of Infrastructure.** While this may be a byproduct of DRI, DRI does not explicitly address these aspects.

What is the Need for CDRI?

- The **Sendai Framework for Disaster Risk Reduction (SFDRR)** highlights the role of improved disaster resilience of infrastructure as a cornerstone for sustainable development.
- The SFDRR includes **four specific targets** related to loss reduction:
    - Reduce global disaster mortality;
    - Reduce the number of affected people;
    - Reduce direct disaster economic loss; and

    - Reduce disaster damage to critical infrastructure.
- **Target (4)** on infrastructure is an important prerequisite to achieving the other loss reduction targets set out in the framework.
- Between 2016 and 2040, the global annual infrastructure investment needs are estimated at **USD 3.7 trillion per year.**
    - Thus, there is a clear case for ensuring that all future **infrastructure systems are resilient in the face of disasters** in order to protect our investments.
- The **challenges faced by island states** due to climate change are a key focus of efforts under the CDRI initiative.
    - Initiative on 'Infrastructure for Resilient Island States' was **launched at** COP-26.

What is the Initiative on Infrastructure for Resilient Island States?

- India launched this initiative as a part of the CDRI that would focus on building capacity, having pilot projects, especially in small island developing states.
- Small Island Developing States or SIDS face the biggest threat from climate change, India's space agency **ISRO** will build a special data window for them to provide them with timely information about cyclones, coral-reef monitoring, coast-line monitoring etc. through satellite.

What is its Significance for India?

- Provide a platform for **India to emerge as a global leader on climate Action and Disaster Resilience.**
    - CDRI boosts India's soft power, but more importantly it has wider connotation than just economics, as synergy between disaster risk reduction, **Sustainable Development Goals (SDGs)** and Climate Accord provides for sustainable and inclusive growth.
- Complement the **International Solar Alliance (ISA).**
- Facilitate India's support to resilient infrastructure in Africa, Asia, etc.
- Provide access to knowledge, technology, and capacity development for infra developers.
- Create opportunities for Indian infrastructure & technology firms to expand services abroad.

Source: PIB

Tissue Culture Plants

For Prelims: APEDA, DBT, Tissue Culture.

For Mains: Tissue Culture Plants and their significance.

Why in News?

Recently, the Centre through the **Agricultural and Processed Food Products Export Development Authority (APEDA)** conducted a webinar on "**Export Promotion of Tissue Culture Plants**'' such as Foliage, Live Plants, Cut Flowers, and Planting Material" with Department of Biotechnology (DBT) accredited tissue culture laboratories spread across India.

- The aim is to boost exports of tissue culture plants.

What is Tissue Culture?

- It is the **production of new plants from a small piece of plant tissue or cells** removed from the growing tips of a plant in a suitable growth medium.
- In this process the **growth medium or culture solution is very important** as it is used for growing plant tissue because it contains various plant nutrients in the form of 'jelly' known as agar and plant hormones which are necessary for the growth of plants.

What are the Applications of Plant Tissue Culture?

- To **study the respiration and metabolism** of plants.
- For the **evaluation of organ functions in plants.**
- To **study the various plant diseases** and work out methods-for their elimination.
- **Single cell clones are useful for genetic**, morphological and pathological studies.
- Embryonic cell suspensions can be used for large scale clonal propagation.
- Somatic embryos from cell suspensions can be stored for long term in germplasm banks.
- In the production of **variant clones with new characteristics,** a phenomenon referred to as somaclonal variations.
- **Production of haploids** (with a single set of chromosomes) for improving crops.
- **Mutant cells can be selected from cultures** and used for crop improvement.
- **Immature embryos can be cultured in vitro to produce hybrids,** a process referred to as embryo rescue.

What is the Scope of Tissue Culture in India?

- India is **bestowed with knowledge, biotech experts with vast tissue culture experience** as well as with a **low-cost labour force** to help produce export-oriented quality planting material.
- All these factors make **India a potential global supplier of an extended and diversified range of quality flora** to the international market and, in turn, earn foreign exchange.
- APEDA is running a **Financial Assistance Scheme (FAS) to help laboratories upgrade themselves** so as to produce export quality tissue culture planting material.
    - It also **facilitates exports of tissue culture planting material to diversified countries** through market development, market analysis and promotion and exhibition of tissue culture plants at international exhibitions and by participating in buyer-seller meets at different international forums.
- The **top ten countries importing tissue culture plants from India are:**
    - Netherlands, USA, Italy, Australia, Canada, Japan, Kenya, Senegal, Ethiopia and Nepal.
- In 2020-2021, **India's exports of tissue culture plants stood at USD17.17 million**, with the Netherlands accounting for around 50% of the shipments.

What are the Issues Faced by Tissue Culture Exporters in India?

- Increasing power costs
- Low efficiency levels of the skilled workforce in the laboratories
- Contamination issues in the laboratories
- Cost of transportation of micro-propagated planting material
- Lack of harmonization in the HS code of Indian planting material with other nations
- Objections raised by the forest and quarantine departments

Source: PIB

Heatwaves and Wet Bulb Temperature

For Prelims: Wet bulb temperature, Dry bulb temperature, Intergovernmental Panel on Climate Change, IPCC Report AR6, Heatwaves.

For Mains: Environmental Pollution & Degradation, Conservation, Wet bulb temperature, Impact of rising wet bulb temperature, Heatwaves.

Why in News?

The recently published **Intergovernmental Panel on Climate Change (IPCC) Report AR6** (Sixth Assessment Report) has emphasised that **humidity is very important factor** while estimating the physiological stress that extreme heat puts on the human body.

- Instead of the **"dry bulb" temperature** which is usually measured using a regular thermometer, an alternative metric known as the **"wet bulb temperature"** has been used to measure exposure to extreme heat.
- Since March 2022, the consecutive **heatwaves** over South Asia **have continued the disturbing tradition of breaking historical temperature records.**

What are Heatwaves?

- A heatwave is a period of **abnormally high temperatures**, more than the normal maximum temperature that occurs during the summer season in the North-Western and South Central parts of India.
- Heatwaves typically occur between March and June, and in some rare cases even **extend till July.**
- **India Meteorological Department** (IMD) classifies heatwaves according to regions and their temperature ranges.

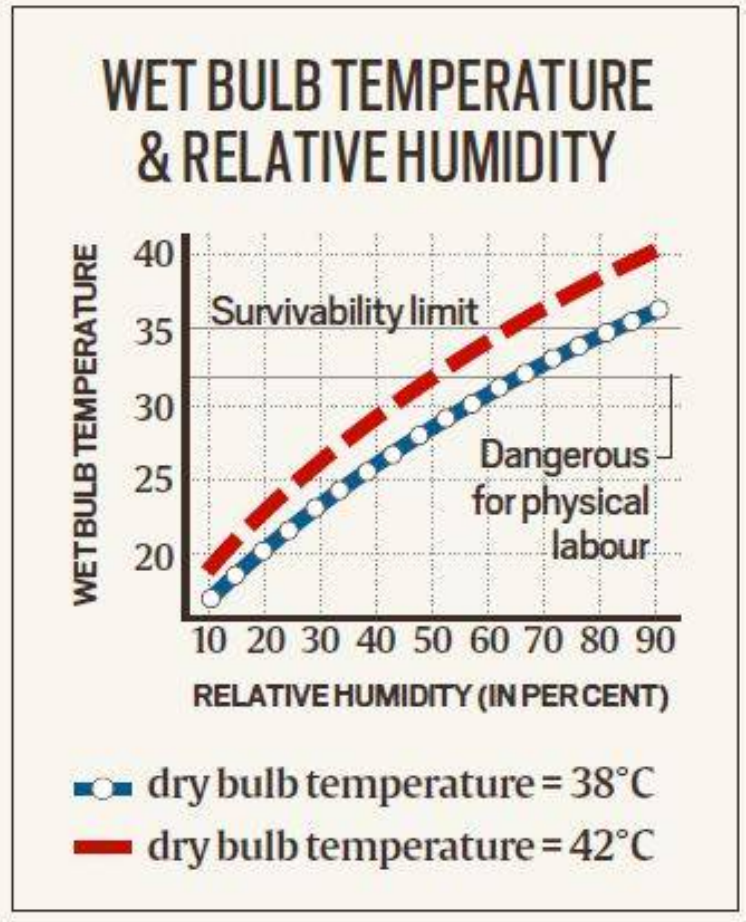
What is the Criteria for Heatwaves?

- The heatwave is considered when the maximum temperature of a station reaches **at least 40°C for Plains and at least 30°C for Hilly regions.**
- If the normal maximum temperature of a station is less than or equal to 40°C, then an increase of 5°C to 6°C from the **normal temperature is considered to be heat wave condition.**
    - Further, an increase of 7°C or more from the normal temperature is considered a **severe heat wave condition.**
- If the normal maximum temperature of a station is more than 40°C, then an increase of **4°C to 5°C from the normal temperature** is considered to be heat wave condition. Further, an increase of 6°C or more is considered a severe heat wave condition.
- Additionally, if the **actual maximum temperature remains 45°C or more** irrespective of normal maximum temperature, a heat wave is declared.

Why is Humidity such a Critical factor while Measuring Heat Exposure?

- Humans lose heat generated within their bodies **by producing sweat that evaporates on the skin.**
    - The cooling effect of this evaporation is essential in maintaining a **stable body temperature.**
- As humidity rises, sweat does not evaporate and makes it difficult to regulate body temperature. This is why humans **feel more discomfort in humid places.**
- The wet bulb temperature is usually **lower than the dry bulb temperature**, and the difference **between the two increases** dramatically as the air becomes dry.
    - The report mentions that sustained exposures to wet bulb temperatures **above 35°C are fatal,** while sustained exposures to wet bulb temperatures **above 32°C are dangerous**

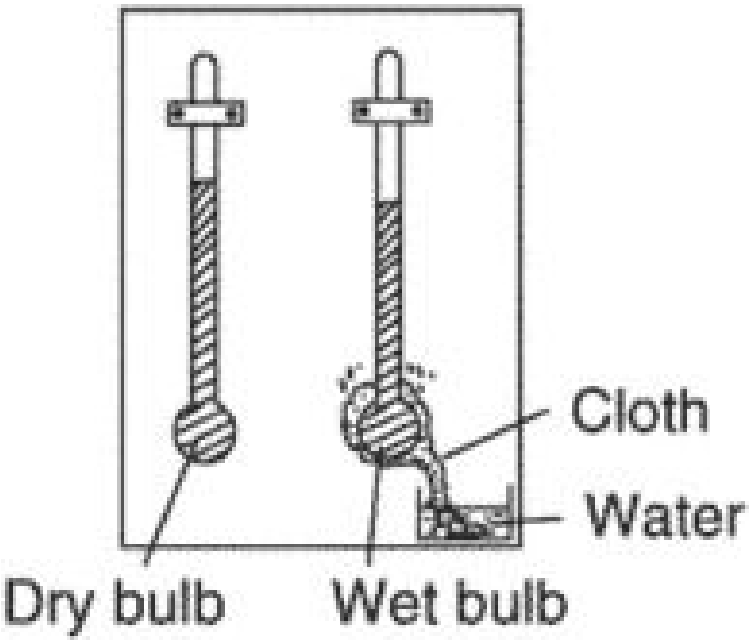
for intense physical activity.



- The humidity required to reach wet bulb temperatures in excess of 35°C over land is exceedingly **difficult to achieve.**
    - According to the report, such conditions are **rarely observed** nowadays.
- The findings also suggest that it is unlikely to experience sustained exposure to wet bulb temperatures **beyond the threshold of survivability.**
- The hype around survivability thresholds and wet bulb temperatures hides deeper issues, **both physiological and political.**
    - Firstly, the **inability of the body to stabilise its core temperature** can have multiple reasons.
        - Increased strain on the heart during periods of elevated temperature could be fatal for those with **pre-existing cardiac conditions** which is the **leading cause of deaths** during heatwaves.
    - **Pre-existing respiratory problems and diabetes** too are potential causes of death.
        - Such conditions **impair the body's ability to efficiently transfer heat to the environment.**

What is the Wet Bulb Temperature?

- Wet bulb temperature is the **lowest temperature to which air can be cooled** by the evaporation of water into the air at a constant pressure.
- WBT is a limit that **considers heat and humidity beyond which humans can not tolerate** high temperatures.
- The Wet Bulb temperature is the **temperature of adiabatic saturation**. This is the temperature indicated by a moistened thermometer bulb exposed to the air flow.
    - An adiabatic process is one in which **no heat is gained or lost by the system.**
- Wet Bulb temperature can be **measured by using a thermometer with the bulb wrapped in wet muslin.**



- The adiabatic evaporation of water from the thermometer and the cooling effect is indicated by a **"wet bulb temperature" lower than the "dry bulb temperature"** in the air.
- The rate of evaporation from the wet bandage on the bulb, and the temperature difference between the dry bulb and wet bulb, **depending on the humidity of the air.**
- The evaporation is reduced when the air contains more **water vapour.**
- The wet bulb temperature is always lower than the dry bulb temperature but will be **identical with 100% relative humidity** (the air is at the saturation line).

What is Dry Bulb Temperature?

- The Dry Bulb temperature usually referred to as **"air temperature",** is the air property that is most commonly used. When people refer to the temperature of the air they are normally referring to the dry bulb temperature.
- The Dry Bulb Temperature refers basically to the **ambient air temperature.** It is called "Dry Bulb" because the air temperature is **indicated by a thermometer not affected by the moisture of the air.**
- Dry-bulb temperature **can be measured using a normal thermometer** freely exposed to the air but shielded from radiation and moisture.
- The dry-bulb temperature is an **indicator of heat content.**

Source: IE

State of the World's Birds

For Prelims: State of the World's Birds

For Mains: Conservation, Government Policies & Interventions

Why in News?

According to the **new review 'State of the World's Birds', approximately 48% of existing bird species worldwide** are known or suspected to be undergoing population declines.

- State of the World's Birds is an **annual review of environmental resources.**
- Since birds are highly visible and are sensitive indicators of environmental health, **their loss signals a much wider loss of biodiversity** and threat to human health and well-being.

What are the Key Highlights of the Review?

- **About:**
  - **Overall:**
    - The threat has been **attributed to almost half of the 10,994 recognised extant species of birds to the expanding human footprint** on the natural world and climate change.
    - **While 4,295 or 39% of the species** had stable trends, about 7% or 778 species had increasing population trends. The trend of 37 species was unknown.
    - The study **reviewed changes in avian biodiversity** using data from the **International Union for Conservation of Nature's Red List** to reveal the changes in fortunes of all the global bird species.
  - **India:**
    - The trend towards **declining bird diversity is just as alarming in India**, where recent annual trends have been calculated for 146 species.
      - Of these, **nearly 80% are declining in numbers, and almost 50% plummeting strongly.**
      - Just over **6% of the species studied show stable populations** and 14% show increasing population trends.
    - **Among the most threatened species** were endemic species, birds of prey, and those living in forests and grasslands.
- **Reasons for the Decline:**
  - **Degradation and loss of natural habitats as well as direct overexploitation** of many species are the key threats to avian biodiversity.
    - The **use of 37% of the surviving bird species as common or exotic pets** and **14% as food** are examples of direct overexploitation.
  - Also, humans eat 14% of the world's surviving species of birds.
  - Apart from **tropical forests**, the threat of natural grasslands has been particularly worrying for North America, Europe and India.

What are the Recommendations?

- Conducting reliable estimates of population abundance and change.
- Novel and more effective solutions applied at scale for demand reduction for over harvested wild birds.
- Monitoring green energy transitions that can impact birds if inappropriately implemented
- Eradication of populations of invasive alien species.
- Shifting human societies to economically sustainable development pathways.

Source: TH

Cyclone Asani

For Prelims: Cyclone Asani, IMD, Cyclone nomenclature.

For Mains: Cyclone Formation, Tropical Cyclone.

Why in News?

The **India Meteorological Department (IMD)** has predicted the **Cyclone** **Asani** to intensify into a **'severe cyclone'** over Southeast regions of Bay of Bengal.

- The name **Cyclone Asani has been given by Sri Lanka**. It means 'wrath' in Sinhalese.
- Cyclones that Hit India in 2020-21: **Tauktae**, **Yaas**, **Nisarga**, **Amphan**.

What is the Occurrence of Cyclones in India?

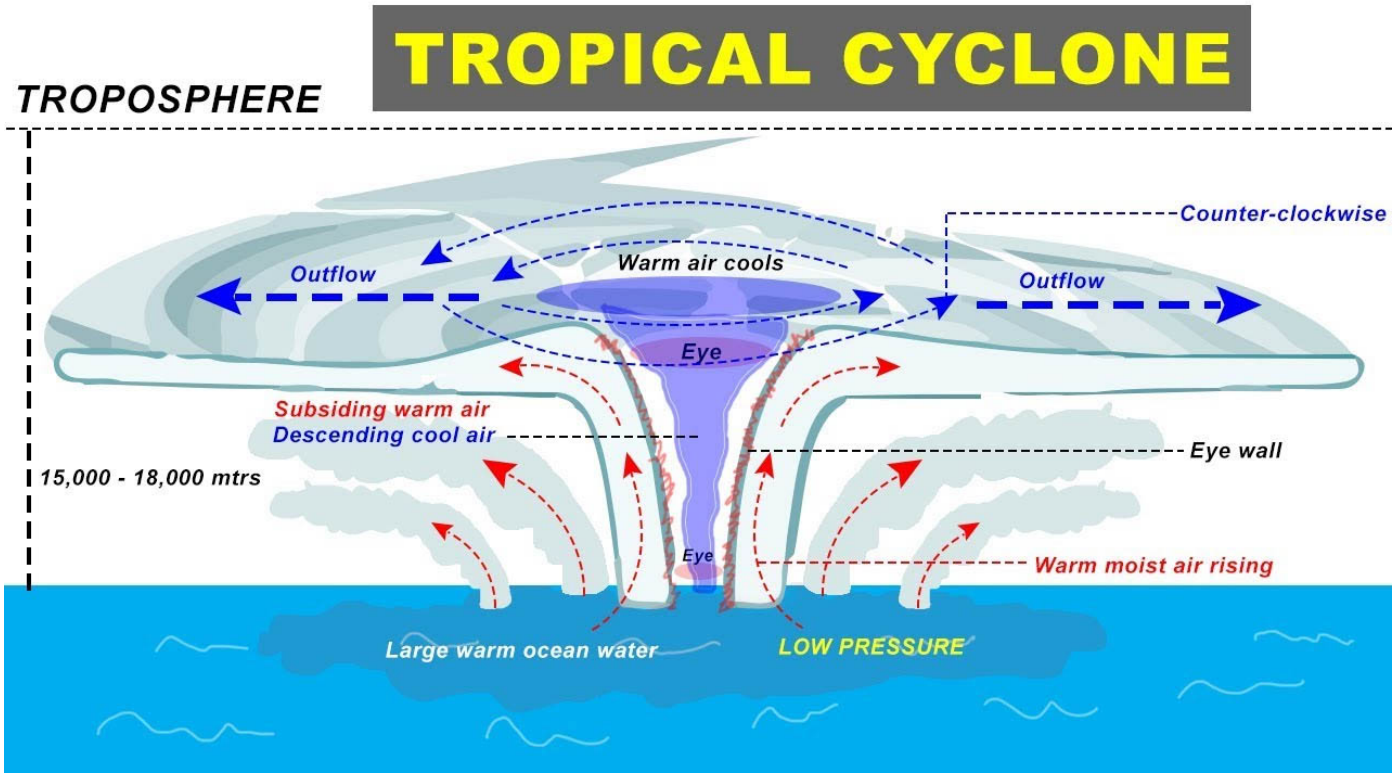
- India has a **bi-annual cyclone season that occurs between March to May and October to December.** But on rare occasions, cyclones do occur in June and September months.
    - Cyclone Gulab became the third cyclone of the 21st century to make landfall over the east coast in September, after tropical cyclone Daye in 2018 and Pyarr in 2005.
- Typically, **tropical cyclones in the North Indian Ocean region** (Bay of Bengal and Arabian Sea) develop during the **pre-**monsoon (April to June) and post-monsoon (October to December) periods.
- May-June and October-November are known to produce cyclones of severe intensity that affect the Indian coasts.

What is Classification?

- The IMD classifies cyclones **on the basis of the Maximum Sustained Surface Wind Speed (MSW)** they generate.
- The cyclones are classified as severe (MSW of 48-63 knots), very severe (MSW of 64-89 knots), extremely severe (MSW of 90-119 knots) and super cyclonic storm (MSW of 120 knots or more). One knot is equal to 1.8 kmph (kilometers per hour).

What are the Tropical Cyclones?

- A **tropical cyclone** is an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- A **characteristic feature of tropical cyclones is the eye**, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type are called **hurricanes in the North Atlantic and eastern Pacific** and **typhoons in SouthEast Asia and China**. They are called **tropical cyclones in the southwest Pacific and Indian Ocean region** and **Willy-willies in north-western Australia.**
- Storms **rotate counterclockwise in the northern hemisphere** and clockwise in the southern hemisphere.
- The **conditions favourable** for the formation and intensification of tropical storms are:
    - Large sea surface with temperature higher than 27° C.
    - Presence of the **Coriolis force**.
    - Small variations in the vertical wind speed.
    - A pre-existing weak low- pressure area or low-level-cyclonic circulation.
    - Upper divergence above the sea level system.



UPSC Civil Services Examination, Previous Year Questions

Q. Consider the following statements: (2020)

1. Jet streams occur in the Northern Hemisphere only.
2. Only some cyclones develop an eye.
3. The temperature inside the eye of a cyclone is nearly 10ºC lesser than that of the surroundings.

Which of the statements given above is/are correct?

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

Ans: (c)

Exp:

- Jet Stream is a geostrophic wind blowing horizontally through the upper layers of the troposphere, generally from west to east, at an altitude of 20,000 - 50,000 feet. Jet Streams develop where air masses of different temperatures meet. So, usually surface temperatures determine where the Jet Stream will form. Greater the difference in temperature, faster is the wind velocity inside the jet stream. Jet Streams extend from 20° latitude to the poles in both hemispheres. **Hence, statement 1 is not correct.**
- Cyclones are of two types, tropical cyclone and temperate cyclone. The center of a tropical cyclone is known as the ‘eye’, where the wind is calm at the center with no rainfall. However, in a temperate cyclone, there is not a single place where winds and rains are inactive, so the eye is not found. **Hence, statement 2 is correct.**
- The warmest temperatures are found in the eye itself, not in the eyewall clouds where the latent heat occurs. The air is saturated only where convective vertical motions pass through flight level. Inside the eye, the temperature is greater than 28°C and the dewpoint is less than 0°C. These warm and dry conditions are typical of the eyes of extremely intense tropical cyclones. **Hence,**

statement 3 is not correct.
- Therefore, option (c) is the correct answer.

Source: IE

Monkey Pox

For Prelims: Viral zoonosis, Monkey Pox, Small Pox.

For Mains: Zoonotic Diseases, Health.

Why in News?

Recently, Health authorities in the **United Kingdom have confirmed a case of monkeypox**, a rare viral infection similar to smallpox, in an individual who **recently travelled to that country from Nigeria.**

- Monkeypox is a **viral zoonosis** (a virus transmitted to humans from animals) with symptoms similar to those seen in the past in smallpox **patients**, although it is clinically less severe.
- With the eradication of smallpox in 1980 and subsequent cessation of smallpox vaccination, it has emerged as the most important **orthopoxvirus.**
- The genus Orthopoxvirus contains four species that infect humans: variola (smallpox), monkeypox, vaccinia (includes buffalopox), and cowpox.

What is Monkey Pox?

- **About:** Monkeypox is a **viral zoonotic disease** that occurs primarily in tropical rainforest areas of **Central and West Africa** and is occasionally exported to other regions.
    - Monkeypox virus infection has been **detected in squirrels, Gambian poached rats, dormice, and some species of monkeys.**
    - Monkeypox is **caused by monkeypox virus**, a member of the Orthopoxvirus genus in the family Poxviridae.
- **Background:** Monkey Pox infection was **first discovered in 1958** following two outbreaks of a pox-like disease in colonies of monkeys kept for research — which led to the **name 'monkeypox'.**
- **Symptoms:** Monkeypox typically presents clinically with fever, rash and swollen lymph nodes.
    - It causes the **lymph nodes to swell (lymphadenopathy)**, which smallpox does not.
- **Transmission:** Monkeypox virus is mostly transmitted to people from **wild animals such as rodents and primates,** but human-to-human transmission also occurs.
- **Human to Human Transmission:** The first human case was recorded in 1970 in the **Democratic Republic of the Congo (DRC)** during a period of intensified effort to eliminate smallpox.
    - Monkeypox virus is transmitted from **one person to another by contact** with lesions, body fluids, respiratory droplets and contaminated materials such as bedding.
- **Incubation Period:** The incubation period (time from infection to symptoms) for monkeypox is usually **7-14 days but can range from 5-21 days.**
- **Fatality Rate:** Typically, up to a tenth of people ill with monkeypox may die, with most deaths occurring in younger age groups.
- **Treatment:** The clinical presentation of monkeypox resembles that of smallpox, a related orthopoxvirus infection which was declared eradicated worldwide in 1980.

- **Vaccinia vaccine** used during the **smallpox eradication programme was also protective against monkeypox.**
- A new third generation vaccinia vaccine has now been approved for prevention of smallpox and monkeypox. Antiviral agents are also being developed.

UPSC Civil Services Examination Previous Year Questions (PYQs)

Q. Consider the following diseases: (2014)

1. Diphtheria
2. Chickenpox
3. Smallpox

Which of the above diseases has/have been eradicated in India?

(a) 1 and 2 only
(b) 3 only
(c) 1, 2 and 3
(d) None

Ans: (b)

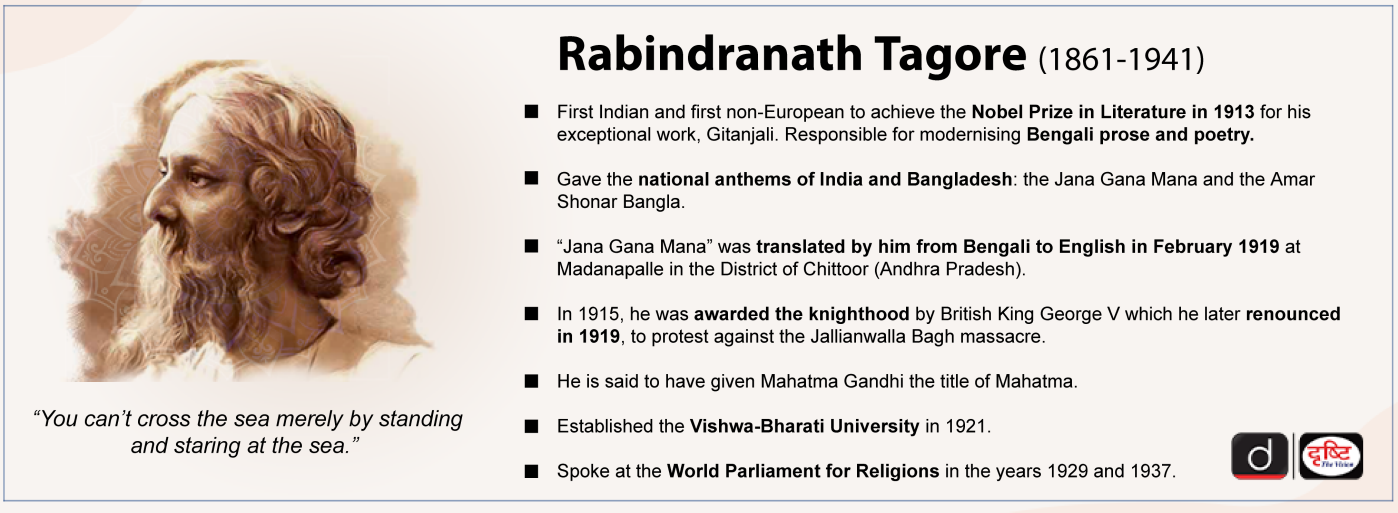
Source: IE

Rabindranath Tagore

Why in News?

The Prime Minister on 9th May, 2022 paid tribute to Gurudev Rabindranath Tagore on his birth anniversary.

- According to the Bengali calendar, the Tagore Jayanti falls on the 25th day of the Boishakh month.



What do we know about Rabindranath Tagore?

- **Birth:**
  - He was born in **Calcutta on 7th May 1861.**
- **About:**
  - He was also referred to as **'Gurudev'**, **'Kabiguru**', and '**Biswakabi**'.
  - He is regarded as the outstanding creative artist of modern India and hailed by W.B Yeats, Rabindranath Tagore was a **Bengali poet, novelist, and painter**, who was highly influential in introducing Indian culture to the west.
  - He was an exceptional **literary figure and a renowned polymath** who singlehandedly reshaped the region's literature and music.
  - He was a **good friend of** Mahatma Gandhi and is said to have **given him the title of Mahatma.**
  - He had always stressed that **unity in diversity** is the only possible way for India's national integration.
  - He had spoken at the **World Parliament for Religions in the years 1929 and 1937.**
- **Contributions:**
  - He is said to have **composed over 2000 songs** and his songs and music are called **'Rabindra Sangeet'** with its own distinct lyrical and fluid style.
  - He is responsible for modernising Bengali prose and poetry. His notable works include **Gitanjali, Ghare-Baire, Gora, Manasi, Balaka, Sonar Tori,** He is also remembered for his song **'Ekla Chalo Re'.**
    - He published his first poems aged 16 under the pen-name '**Bhanusimha**'.
  - He not only gave the **national anthems for two countries, India and Bangladesh,** but also **inspired a Ceylonese student of his, to pen and compose the national anthem of Sri Lanka**.
  - Besides all his literary achievements he was also a philosopher and educationist who in **1921 established the Vishwa-Bharati University**, a university that challenged conventional education.
- **Awards:**
  - In **1913** he was awarded the Nobel Prize **in Literature** for his work on Gitanjali.
    - He was the **first non-European** to receive the Nobel Prize.
  - In 1915 he was awarded **knighthood by** the British King George V. In 1919, following the Jallianwalla Bagh massacre, he renounced his Knighthood.
- **Death:**
  - He died on **7th August 1941 in Calcutta.**
- **Quotes by him:**
  - "You can't cross the sea merely by standing and staring at the sea."
  - "Don't limit the child to your own learning, for he was born in another time."
  - "If I can't make it through one door, I'll go through another door- or I'll make a door. Something terrific will come no matter how dark the present."
  - "Facts are many, but the truth is one".

UPSC Civil Services Examination, Previous Year Questions

Q. With reference to Madanapalle of Andhra Pradesh, which one of the following statements is correct?

(a) Pingali Venkayya designed the tricolour Indian National Flag here.

(b) Pattabhi Sitaramaiah led the Quit India Movement of Andhra region from here.

(c) Rabindranath Tagore translated the National Anthem from Bengali to English here.

(d) Madame Blavatsky and Colonel Olcott set up headquarters of Theosophical Society first here.

Ans: (c)

- The original song 'Jana Gana Mana' (National Anthem) was written in Bengali, but in a Sanskritized

dialect known as Sadhu Bhasha.

- The idea of translating the song from Bengali to English came to Rabindranath Tagore while he was visiting the Besant Theosophical College on the invitation of Irish poet James H. Cousins. He penned down the English translation during his stay at Madanapalle, a small town in the Chittoor district of Andhra Pradesh.
- Jana Gana Mana was officially proclaimed as India's National Anthem by the Constituent Assembly of India on 24th January 24, 1950.
- **Therefore, option (c) is the correct answer.**

Source:PIB
