Internationalisation of Indian Rupee

For Prelims: Reserve Bank of India, Internationalisation of the rupee, Legal tender, Demonetization, Real-Time Gross Settlement , International Monetary Fund.

For Mains: Benefits of Internationalisation of Rupee, Steps Towards Internationalization of Rupee

Why in News?

A Reserve Bank of India-appointed working group recommended **inclusion of the rupee in the Special Drawing Rights (SDR) basket** and **recalibration of the** foreign portfolio investor (FPI) regime to accelerate the pace of **internationalisation of the rupee.**

What is Internationalisation of Rupees?

- **About:**
  - Internationalisation of rupees is a **process that involves increasing use of the local currency in cross-border transactions.**
  - It involves **promoting the rupee for import and export trade** and then other current account transactions followed by its use in **capital account transactions.**
- **Historical Context:**
  - In the 1950s, the Indian rupee was widely used as **legal tender** in the **United Arab Emirates, Kuwait, Bahrain, Oman, and Qatar.**
  - However, the devaluation of India's currency by 1966 led to the introduction of sovereign currencies in these countries to reduce reliance on the Indian rupee.
- **Benefits of Internationalisation of Rupee:**
  - **Appreciate Currency Value:** It will improve the demand for the rupee in international trade.
    - This can lead to **increased convenience and reduced transaction costs** for businesses and individuals dealing with India.
  - **Reduced Exchange Rate Volatility:** When a currency is internationalized, its exchange rate tends to stabilize.
    - The **increased demand for the currency in global markets can help reduce volatility**, making it more predictable and reliable for international transactions.
  - **Geopolitical Advantages:** Internationalizing the Rupee can enhance India's geopolitical influence.
    - It **can strengthen economic ties with other countries,** facilitate bilateral trade agreements, and promote diplomatic relations.
- **Challenges:**
  - **Limited International Demand:**
    - The daily average share for the rupee in the **global forex** market is **only around 1.6%, while India's share of global goods trade is ~2%.**
  - **Convertibility Concern:**
    - The **INR is not fully convertible**, meaning there are restrictions on its convertibility for certain purposes such as capital transactions. This **restricts its widespread use in international trade and finance.**

    - **Demonetization Impact:**
        - The **demonetization** exercise in 2016, along with the recent withdrawal of the ₹2,000 note, **has affected confidence in the rupee,** particularly in neighboring countries like Bhutan and Nepal.
    - **Challenges in Trade Settlement:**
        - While efforts have been made to trade with around 18 countries in rupees, transactions have remained limited.
        - **Also, negotiations with Russia to settle trade in rupees have been slow,** hampered by currency depreciation concerns and inadequate awareness among traders.
- **Steps Towards Internationalization:**
    - In March 2023, the RBI put in place the mechanism for **rupee trade settlement with as many as 18 countries.**
        - Banks from these countries have been allowed to open S**pecial Vostro Rupee Accounts (SVRAs)** for settling payments in Indian Rupees.
    - In July 2022, the RBI issued a circular on **"International Trade Settlement in Indian Rupees".**
    - RBI enabled **external commercial borrowings** in Rupees (especially **Masala Bonds**)

What can be Done to Pace-up Internationalization of Rupee?

- **Full Convertibility and Trade Settlement:** The Rupee should aim for full Convertibility, allowing **free movement of financial investments** between India and other countries.
    - Encouraging **Indian exporters and importers to invoice transactions in rupees** would optimize trade settlement formalities.
- **Liquid Bond Market:** RBI should focus on developing a more liquid rupee bond market, providing investment options for foreign investors and trade partners.
    - Also, **there is a need to recalibrate the foreign portfolio investor (FPI) regime** in order to enhance the speed at which the rupee is internationalized.
- **Expansion of RTGS system:** The **Real-Time Gross Settlement (RTGS) system** should be **expanded to settle international transactions.**
    - Also, providing tax incentives to foreign businesses utilizing the rupee in India would promote its use.
- **Currency Swap Agreements:** Increasing currency swap agreements, **as seen with Sri Lanka, would facilitate trade and investment transactions in rupees.**
    - Consistent and predictable currency issuance and retrieval, along with a stable exchange rate regime, are essential for maintaining confidence.
- **Inclusion in the SDR basket:** Rupee should be pitched to get included in **Special Drawing Rights (SDR), which is an international reserve asset** created by the **International Monetary Fund (IMF)** based on a basket of major currencies.
    - Also, Indian Government Bonds (IGBs) can be **included in global indices, attracting foreign investments into Indian debt markets.**
- **Lessons from China's Experience:** China's approach to internationalizing the Renminbi provides valuable insights for India:
    - **Phased Approach:** China **gradually enabled the use of the Renminbi** for current account transactions and select investment transactions before progressing towards its use as a reserve currency.
    - **Offshore Markets:** The establishment of offshore markets, such as the **Dim Sum bond and offshore RMBD bond market,** facilitated the internationalization process.

Note:

- **Foreign Portfolio Investment (FPI)**: It consists of securities and other financial assets passively held by foreign investors.
    - It is part of a **country's capital account** and is shown on its BOP.
    - It does not provide the investor with direct ownership of financial assets.
    - FPI is **more liquid, volatile and therefore riskier** than FDI.
    - It is often **referred to as "hot money".**
    - Examples - Stocks, bonds**,** mutual funds**,** exchange traded funds**.**

- **Special Drawing Rights:**
  - SDR serves as the unit of account of the IMF, but it is neither a currency nor a claim on the IMF.
  - The SDR basket of currencies includes the US dollar, Euro, Japanese yen, pound sterling and the Chinese renminbi (included in 2016).

Conclusion

The **Tarapore Committee's recommendations (in 1997 and 2006),** including **reducing fiscal deficits, inflation rates, and banking non-performing assets, should be pursued as a primary step towards internationalisation of rupee. Also, advocating for the rupee to become an official currency in international organizations** would raise its profile and acceptance.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims:

Q1. Convertibility of rupee implies (2015)

(a) being able to convert rupee notes into gold
(b) allowing the value of rupee to be fixed by market forces
(c) freely permitting the conversion of rupee to other currencies and vice versa
(d) developing an international market for currencies in India

Ans: (c)

Q2. With reference to Balance of Payments, which of the following constitutes/ constitute the Current Account? (2014)

Balance of trade

Foreign assets

Balance of invisibles

Special Drawing Rights

Select the correct answer using the code given below:

a.1 only
b. 2 and 3
c. 1 and 3
d. 1, 2 and 4

Ans: (c)

Source: TH

Whole-Genome Sequencing in Newborns

For Prelims: Whole Genome Sequencing, DNA, Gene, Genome.

For Mains: Whole Genome Sequence and its Significance

Why in News?

Recently, the use of rapid **whole-genome sequencing (WGS)** in newborns, including healthy newborns, has emerged as a revolutionary approach to diagnose and treat **genetic diseases.**

- By providing a comprehensive view of an **infant's genetic makeup,** this technology enables healthcare workers to make **fast and effective diagnoses,** leading to improved outcomes and reduced healthcare costs.

What is Whole-Genome Sequencing?

- **About:**
  - All organisms have a unique **genetic code, or genome,** that is composed of **nucleotide bases- Adenine (A), Thymine (T), Cytosine (C) and Guanine (G).**
    - The unique Deoxyribonucleic Acid (DNA) **fingerprint, or pattern can be identified by knowing the sequence of the bases** in an organism.
  - **Determining the order** of bases is called sequencing.
  - **Whole genome sequencing** is a laboratory procedure that **determines the order of bases in the** genome **of an organism in one process.**
- **Importance of Sequencing Newborn Genomes:**
  - Rapid, precise diagnosis of rare genetic diseases **not detected by standard screenings.**
  - Detection of **treatable conditions, enabling early intervention or gene-based therapies.**
  - Insight into **future health risks, facilitating informed choices and preventive measures.**
  - Revelation of ancestry, traits, and carrier status for personal and social value.

Why Sequence Healthy Newborns?

- The BabySeq project in the U.S. explores the potential benefits of sequencing newborns for routine care.
- A study conducted by the project revealed that over **10% of apparently healthy infants had unanticipated genetic disease risks.**
- Sequencing of Healthy Newborns **expands the scope of newborn screening for genetic diseases** that may not be detected by standard biochemical tests.
- Sequencing of Healthy Newborns provides **valuable information about the future health risks and predispositions of the individual.**

What is Genome?

- A **genome** refers to **all of the genetic material in an organism**, and the human genome is mostly the same in all people, but a very small part of the DNA does vary between one individual and another.
- Every organism's **genetic code is contained in its DNA,** the building blocks of life.
  - The discovery that DNA is **structured as a "double helix" by James Watson and Francis Crick in 1953,** started the quest for understanding how genes dictate life, its traits, and what causes diseases.
- **Each genome contains all of the information needed** to build and maintain that organism.
- In humans, a copy of the entire genome contains more than 3 billion DNA base pairs.

What is the Difference between Genome and Gene?

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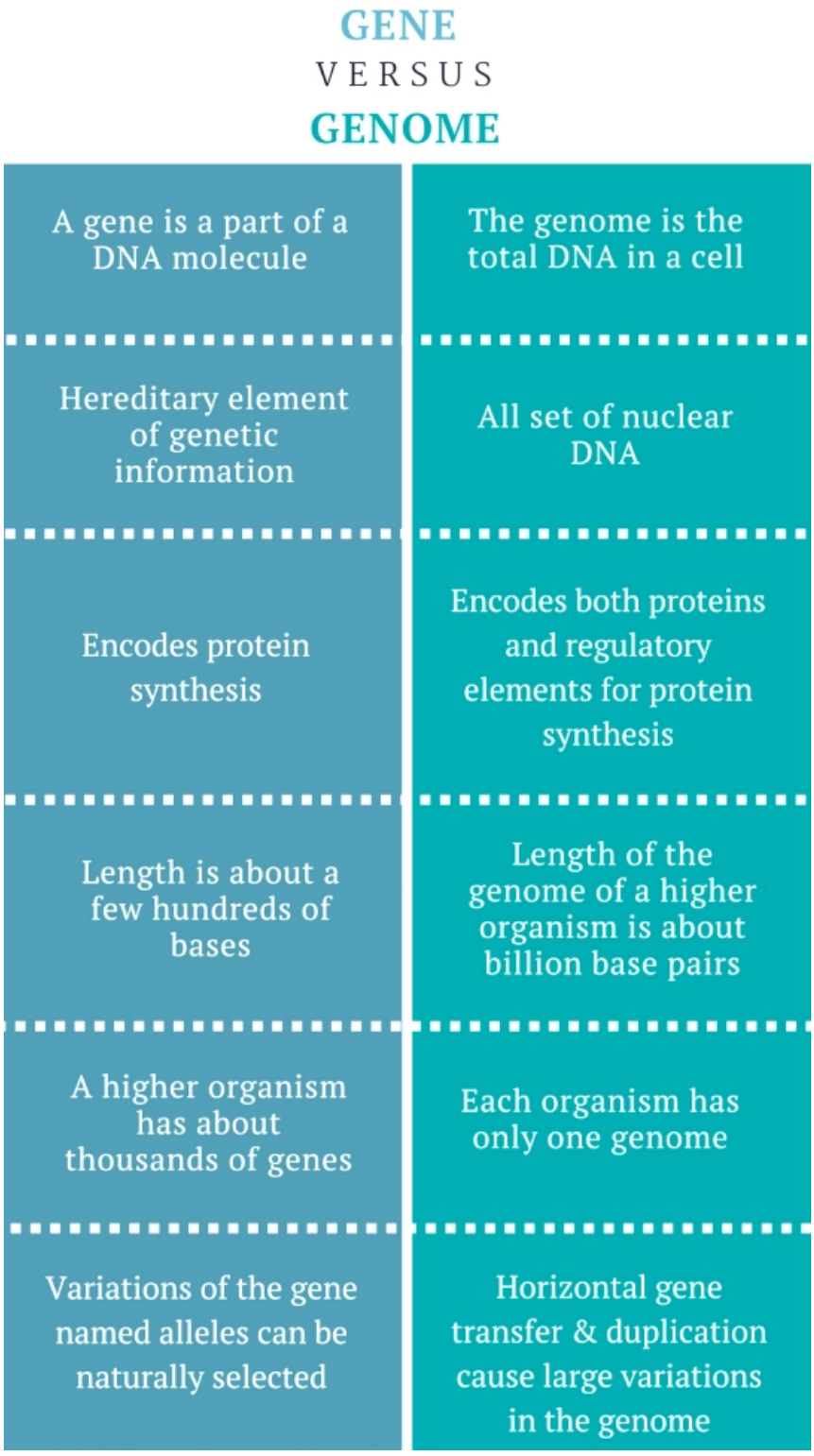


What are the Challenges Associated with Newborn Genome-Sequencing?

- Newborn genome-sequencing generates a **large amount of personal and sensitive data,** which raises **ethical, legal and social issues such as privacy, consent, ownership, disclosure and discrimination.**
- This sequencing may also produce **uncertain or incidental findings** that may not have clear

clinical implications or actionability, which may **cause anxiety, confusion or harm to the individual or their family.**
- This also demands adequate education and training for healthcare professionals and the public, to ensure **proper interpretation and communication of the results.**

Way Forward

- Develop a **strong ethical and legal framework** for privacy, consent, ownership, disclosure, and discrimination concerns related to personal genomic data in newborn genome sequencing.
- Newborn genome-sequencing should also be integrated with existing newborn **screening programs**, clinical care and public health services, to ensure coordination, quality and equity.
- Newborn genome-sequencing should also be accompanied by continuous research, evaluation and feedback, to ensure **evidence-based practice, innovation and improvement.**

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q1. With reference to agriculture in India, how can the technique of 'genome sequencing', often seen in the news, be used in the immediate future? (2017)

4. Genome sequencing can be used to identify genetic markers for disease resistance and drought tolerance in various crop plants.

5. This technique helps in reducing the time required to develop new varieties of crop plants.

6. It can be used to decipher the host-pathogen relationships in crops.

- **Select the correct answer using the code given below:**

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

Ans: (d)

Exp:

- Chinese scientists decoded rice genome in 2002. The Indian Agricultural Research Institute (IARI) scientists used the genome sequencing to develop better varieties of rice such as Pusa Basmati-1 and Pusa Basmati-1121, which currently makes up substantially in India's rice export. Several transgenic varieties have also been developed, including insect resistant cotton, herbicide tolerant soybean, and virus resistant papaya. **Hence, 1 is correct.**
- In conventional breeding, plant breeders scrutinize their fields and search for individual plants that exhibit desirable traits. These traits arise spontaneously through a process called mutation, but the natural rate of mutation is very slow and unreliable to produce all the plant traits that breeders would like to see. However, in genome sequencing it takes less time, thus it is more preferable. **Hence, 2 is correct.**
- The host-pathogen interaction is defined as how microbes or viruses sustain themselves within host organisms on a molecular, cellular, organism or population level. The genome sequencing enables the study of the entire DNA sequence of a crop, thus it aids in understanding of pathogens' survival or breeding zone. **Hence, 3 is correct.**
- **Therefore, option (d) is the correct answer.**

Q2. Consider the following statements: (2022)

DNA Barcoding can be a tool to:

1. assess the age of a plant or animal.
2. distinguish among species that look alike.
3. identify undesirable animal or plant materials in processed foods.

Which of the statements given above is/are correct?

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

Ans: (d)

Exp:

- The novel technique of identifying biological specimens using short DNA sequences from either nuclear or organelle genomes is called DNA barcoding.
- DNA barcoding has many applications in various fields like preserving natural resources, protecting endangered species, controlling agriculture pests, identifying disease vectors, monitoring water quality, authentication of natural health products and identification of medicinal plants.
- Species identification of endangered wildlife (hence, distinguishes among species that look alike), quarantine pests, and disease vectors (identifying undesirable animals/plants) are just a few areas in which DNA barcoding is enabling researchers, enforcement agents, and consumers to make informed decisions in much shorter time frames.
- **Statement 2 and statement 3 are correct, Hence, option (d) is correct (by elimination).**

Mains

Q. What are the research and developmental achievements in applied biotechnology? How will these achievements help to uplift the poorer sections of society? **(2021)**

Source: TH

Gramodyog Vikas Yojana and Village Industries

For Prelims: Gramodyog Vikas Yojana (GVY), **Khadi and Village Industries Commission (KVIC)**, Khadi Vikas Yojana (KVY)

For Mains: Fostering Rural Growth, Initiatives for Development of Rural Industries, Significance of Village industries in Indian Economy

Why in News?

- Recently, the **Lieutenant Governor of Delhi distributed Honeybee-Boxes and Toolkits to 130 recipients as part of the** Gramodyog Vikas Yojana (GVY) program.
    - The initiative was **organised by the Khadi and Village Industries Commission (KVIC).**

What is Gramodyog Vikas Yojana (GVY)?

- **About:**
  - It was **launched in March 2020.**
  - It is **one of the two components of the** Khadi Gramodyog Vikas Yojana which is a **Central Sector Scheme (CSS).**
    - The **other component of Khadi Gramodyog Vikas Yojana is the Khadi Vikas Yojana (KVY)** which includes **two new components such as Rozgar Yukt Gaon, Design House (DH)**
- **Aim:**
  - GVY **aims to promote and develop the village industries through common facilities,** technological modernization, training etc.
- **Included Activities:**
  - Agro-Based & **Food Processing** Industry (ABFPI)
  - **Mineral**-Based Industry (MBI)
  - Wellness & Cosmetics Industry (WCI)
  - Handmade Paper, Leather & Plastic Industry (HPLPI)
  - Rural Engineering & New Technology Industry (RENTI)
  - Service Industry
- **Components:**
  - **R &D and Product Innovation:** R&D support is given to institutions that intend to carry out product development, new innovations, design development, product diversification processes etc.
  - **Capacity Building**: The existing MDTCs (Master Development Training Centers) and institutions of excellence address the capacity building of staff and artisans as part of the Human Resource Development and Skill Training components.
  - **Marketing & Publicity:** The village institutions provide market support by way of preparation of a product catalogue, industry directory, market research, new marketing techniques, buyer-seller meetings, arranging exhibitions etc.

What is KVIC?

- KVIC is a **statutory body established under the Khadi and Village Industries Commission Act, 1956.**
- The KVIC **is charged with the planning, promotion, organisation and implementation of programmes for the development of Khadi and other village industries** in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
- It **functions under the Ministry of MSMEs.**

What is the Significance of Village Industries in Indian Economy?

- **Employment Generation:** Village industries are labor-intensive, providing ample employment opportunities in rural areas. They contribute to reducing unemployment and underemployment, particularly among the rural population.
  - These industries **absorb a substantial workforce, including skilled, semi-skilled, and unskilled workers.**
- **Rural Development:** Village industries contribute to the overall development of rural areas. By establishing small-scale enterprises in villages, they help in creating local economic activities, **reducing migration to urban areas,** and preventing the concentration of population in cities.
- **Poverty Alleviation:** Village industries contribute to poverty alleviation by generating income for rural communities. They provide livelihood options for people who have limited access to formal employment opportunities, particularly in agriculture.
  - By **promoting entrepreneurship and self-employment,** these industries empower **individuals to improve their socio-economic conditions.**
- **Utilisation of Local Resources:** Village industries typically utilize local resources and raw materials available in rural areas. This helps in promoting sustainable development and reducing

dependence on external resources.
    - It **encourages the utilisation of locally available skills, traditional knowledge, and natural materials,** thus preserving local heritage and culture.
- **Export Potential:** Many village industries produce traditional crafts, handlooms, handicrafts, and other unique products that have high demand in domestic as well as international markets.
    - The **export of these products generates foreign exchange earnings and enhances the country's global trade competitiveness.**

What are the Other Initiatives for Development of Village Industries?

- **Deen Dayal Upadhayay Grameen Kaushalya Yojana**
- **Pradhan Mantri Kaushal Vikas Yojana**
- **National Rural Livelihood Mission**

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. Smart cities in India cannot sustain without smart villages. Discuss this statement in the backdrop of rural-urban integration. **(2015)**

Source: PIB

World Zoonosis Day

For Prelims: World Zoonosis Day, Zoonotic Diseases, One Health

For Mains: One Health Concept and its Significance, Zoonotic Diseases and its impactions on public health

Why in News?

The **Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying** recently conducted an awareness program on **zoonotic diseases** as part of the **Aazadi Ka Amrit Mahostav** initiative on **World Zoonosis Day (July 6th, 2023**).

- The program aimed to **educate farmers about zoonotic disease** risks and national efforts for prevention. Due to their **close contact with animals,** farmers are at higher risk of contracting zoonotic diseases.
- The importance of the **"One Health" concept** is highlighted in addressing zoonotic disease risks.

What is World Zoonosis Day?

- **History:**
    - World Zoonosis Day marks the anniversary of the **first vaccination against a zoonotic disease.**
    - On **July 6, 1885, Louis Pasteur,** a French scientist, successfully administered the **first vaccine for zoonotic disease.**
- **Significance:**

- World Zoonosis Day educates people about th**e risks and impacts of zoonotic diseases** on human and animal health.
- **60% of known infectious diseases and 75% of emerging infectious** diseases are zoonotic, according to the **World Health Organization(WHO)**.

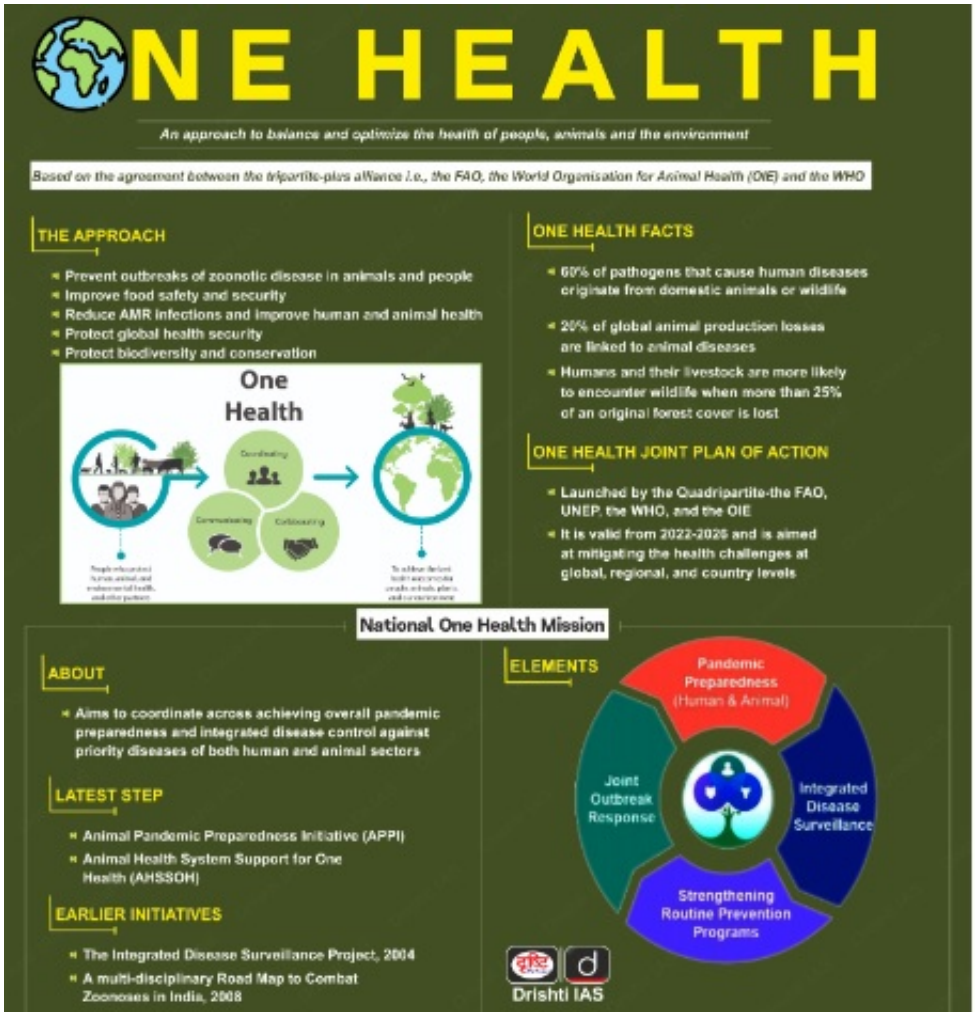
What are Zoonotic Diseases?

- **About:**
  - Zoonotic diseases are illnesses that can be transmitted **between animals and humans.** These diseases can be caused by **bacteria, viruses, parasites, or fungi.**
- **Classification:**
  - **Based on Pathogens:**
    - **Bacterial Zoonoses:** These diseases are caused by **bacterial infections** that can be transmitted from **animals to humans.**
      - Examples include **anthrax**,**and brucellosis**.
    - **Viral Zoonoses:** Well-known viral zoonotic diseases include rabies, **Ebola**, **and Covid-19**.
    - **Parasitic Zoonoses:** Diseases such as **toxoplasmosis and** leishmaniasis fall under this category.
    - **Fungal Zoonoses:** Zoonotic fungal infections, like **ringworm** are caused by fungi that can be transmitted from animals to humans.
  - **Based on Animal Species:**
    - **Wildlife Zoonoses**: These diseases primarily i**nvolve interactions between humans and wildlife**, such as **hantavirus infections transmitted by rodents** or diseases spread by wild birds, like **avian influenza (bird flu).**
    - **Domestic Animal Zoonoses:** Diseases such as **brucellosis from cattle or toxoplasmosis from cats,** fall under this category.
  - **Based on Mode of Transmission:**
    - **Direct Contact Zoonoses:** Infections that occur through **direct contact with infected animals,** their body fluids, or contaminated surfaces.
      - Examples include **rabies transmitted through animal bites** and Q fever from contact with infected livestock.
    - **Vector-Borne Zoonoses:** Diseases transmitted by vectors such as **mosquitoes and ticks.**
      - Examples include **Lyme disease** transmitted by ticks and **dengue** fever transmitted by mosquitoes.
  - **Waterborne Zoonoses**: **Leptospirosis** from contaminated water sources is an example of waterborne zoonotic disease.
- **Causes of Zoonotic Diseases:**
  - The emergence and spread of zoonotic diseases are influenced by several factors, including **environmental changes, wildlife interactions, livestock farming practices, and human behavior.**
  - Encroachment into natural habitats, wildlife trade, inadequate food safety measures, and improper sanitation contribute to the transmission of zoonotic diseases.
- **Prevention Strategies:**
  - Multisectoral collaboration is essential in preventing and controlling zoonotic diseases.
  - The **"One Health" approach** emphasizes the collaboration between human health, animal health, and environmental sectors.
  - Early **detection and surveillance systems** for zoonotic diseases play a crucial role in preventing outbreaks and epidemics.
  - Promoting **hygiene practices,** such as proper handwashing, food safety measures, and safe handling of animals, helps reduce the risk of transmission.
  - **Vaccination programs for animals,** especially those in close contact with humans, can be effective in preventing zoonotic diseases.
  - Improving **public awareness and education about zoonotic diseases** and their prevention is vital in promoting responsible behavior and reducing the risk of transmission.

What are India's Initiatives Related to Zoonotic Diseases?

- **National Animal Disease Control Programme (NADCP)**:
  - Played a vital role in controlling two major zoonotic diseases: **Foot & Mouth Disease (FMD)** and Brucellosis.
- **Mobile Veterinary Units (MVUs):**
  - MVUs have been deployed to provide veterinary services at farmers' doorsteps, including disease diagnosis, treatment, minor surgeries, and raising awareness about the management of diseased animals.
- **Animal Birth Control (Dogs) Rules, 2023:**
  - The focus of the rules is on **anti-rabies vaccination of stray dogs** and neutering of stray dogs as means of population stabilization.
- **National One Health Programme for Prevention & Control of Zoonoses:**
  - Focuses on strengthening surveillance, diagnosis, prevention and control of zoonotic diseases through inter-sectoral coordination and collaboration.
- **Vaccination efforts:**
  - Focus on achieving 100% vaccination coverage for FMD in buffalo, sheep, goat, and pig populations, as well as vaccinating 100% of bovine female calves aged 4-8 months for brucellosis.

What is the One Health Concept?



UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Appropriate local community-level healthcare intervention is a prerequisite to achieve ‘Health for All’ in India. Explain. **(2018)**

Source: PIB

WHO's Food Marketing Recommendations for Child Protection

For Prelims: World Health Organization, Convention on the Rights of the Child, HFSS foods

For Mains: Impact of Food Marketing on Children, Issues Related to Children

Why in News?

Recently, the **World Health Organization (WHO)** has released new guidelines, to help countries shape policies to protect children from the harmful effects of food marketing that promote unhealthy dietary choices.

- The guidelines recommend the implementation of comprehensive mandatory policies to **restrict the marketing of foods and non-alcoholic beverages** that are high in **saturated fatty acids, High trans-fatty acids, sugars, and salt (HFSS)** to children of all ages.
- These guidelines are built on the WHO's **'Set of recommendations on the marketing of foods and non-alcoholic beverages to children'** released in 2010.

What are the Policy Recommendations to Protect Children from Food Marketing?

- **Recommendations:**
  - **Comprehensive Mandatory Policies:**
    - Restrict the **marketing of HFSS foods** and **non-alcoholic beverages** to protect children
    - Policies of countries should restrict advertisements of HFSS foods covering various marketing channels and forms, including **TV, radio, print, online platforms, social media, mobile devices, games, schools, public spaces, and point-of-sale.**
  - **Age Limit:**
    - The **age limit for protection should be up to 18 years,** aligning with the **Convention on the Rights of the Child.**
  - **Nutrient Profile and Country Context:**
    - A nutrient profile model should be used to define HFSS foods and beverages based on **scientific criteria adapted to the country context.**
    - The guidelines emphasize the importance of considering the country's context, including its **nutritional situation, cultural context, locally available foods, dietary customs,** available resources and capacities, existing governance structures, and mechanisms, when formulating policies.
  - **Persuasive Techniques:**
    - Prohibition of persuasive techniques appealing to children, such as **cartoons, celebrities, toys, games, discounts, or free gifts.**
    - Effective mechanisms for **monitoring, enforcement, and evaluation** of policies are necessary.
  - **Involvement of Stakeholders:**

        - Involvement of relevant stakeholders in policy development and implementation, ensuring transparency and avoiding conflicts of interest.
- **Importance:**
    - **Evidence-Informed Guidance:**
        - Policy recommendations provide **evidence-informed guidance to protect children** from harmful food marketing.
        - Address **gaps and challenges in current policies,** highlighting the need for stronger regulations.
    - **Urgent Action Needed:**
        - Recommendations respond to the urgent need for action due to the **increasing burden of childhood** obesity and **non-communicable diseases.**
        - Childhood obesity rates are projected to rise, posing a significant public health concern.
    - **Long-Term Health Impact:**
        - Childhood obesity is associated with **increased mortality** in adulthood.
        - Implementing effective policies can help **mitigate long-term health consequences.**
    - **Protecting Children's Rights:**
        - Recommendations prioritize the **best interest of children**, ensuring their **right to health and adequate food.**
        - Policies aimed at **curbing harmful marketing practices** benefit children's well-being.

What are the Harmful Effects of Food Marketing on Children?

- Food marketing uses persuasive techniques to influence children's **food attitudes, preferences, and consumption.**
- HFSS foods (high in saturated fatty acids, trans-fatty acids, free sugars, and salt) are the main focus of food marketing which are associated with **increased risks of obesity, diabetes, cardiovascular diseases, and dental caries.**
- Food marketing affects **children's food choices by promoting unhealthy options** over healthier ones. It also increases the frequency and amount of HFSS foods consumed.
- Food marketing **displaces the consumption of nutritious foods** like fruits and vegetables and undermines **parental influence on healthy eating.**
- Food marketing can mislead children about the **nutritional quality and health benefits of HFSS foods.** It may exploit **emotional appeals, peer pressure, or celebrity endorsement to influence children's food choices.**

What is the UN Convention on the Rights of the Child (UNCRC)?

- It is a treaty adopted by the **United Nations General Assembly** in 1989.
- It recognises a **child as every human being under 18 years old.**
- It sets out the **civil, political, economic, social, and cultural rights** of every child, regardless of their race, religion, or abilities.
- It includes rights such as the Right to Education, the Right to Rest and Leisure, and the Right to Protection from Mental or Physical Abuse including Rape and Sexual Exploitation, Right to Life and Development.
- It is the **world's most widely ratified human rights treaty.**
- **India ratified the UNCRC in 1992** and has committed to implement its principles and provisions through domestic laws, policies and programmes.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. With reference to the United Nations Convention on the Rights of the Child, consider the following: (2010)

1. The Right to Development

2. The Right to Expression

3. The Right to Recreation

Which of the above is/are the Rights of the child?

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

Ans: (d)

Exp:

- The United Nations (UN) took its first step towards declaring the importance of child rights by establishing the United Nations International Children's Emergency Fund (UNICEF) in 1946. In 1948, the UN General Assembly adopted the Universal Declaration of Human Rights, making it the first UN document to recognise children's need for protection.
- The first UN document specially focused on child rights was the Declaration on the Rights of the Child, but instead of being a legally binding document it was more like a moral guide of conduct for governments. It was not until 1989 that the global community adopted the United Nations Convention on the Rights of the Child, making it the first international legally binding document concerning child rights.
- The convention, which came into force on the 2nd September 1990, consists of 54 articles covering various categories of child rights including right to life, right to development, right to engage in play and recreational activities, right to protection, right to participation, expression, etc. Hence, 1, 2 and 3 are correct. Therefore, option (d) is the correct answer.

Mains

Q. Examine the main provisions of the National Child Policy and throw light on the status of its implementation. **(2016)**

Source: DTE

Farmers Distress Index

For Prelims: Farmers Distress Index, ICAR**,** PMFBY**,** PMKSY**,** e-NAM**.**

For Mains: Farmers Distress Index.

Why in News?

- The **Central Research Institute for Dryland Agriculture (CRIDA)**, an institution under the **Indian Council of Agricultural Research (ICAR),** is developing an Early Warning System called **"Farmers' Distress Index", a first of its kind for India.**

What is the Farmers' Distress Index?

- **About:**
  - The index tries to anticipate the Agrarian distress and prevent its **spread from a few farmers to the village or block level.**
  - It will enable various entities such as the central government, state governments, local bodies, and non-governmental agencies **to receive early warnings about impending farmers' distress,** thus facilitating proactive interventions.
- **Objective:**
  - The index aims to minimize the agrarian distress in the form of **crop loss / failure and income shock.**
    - Farmers' exposure to shocks have increased in the recent years, with an increase in extreme climate events as well as market and price fluctuations, many times driving them to death by suicides.
- **Methodology for Monitoring Distress:** The development of the index **involves multiple steps.**
  - Local newspapers, news platforms, and social media are scoured to identify instances of farmers' distress, including debt repayment issues, suicides, pest attacks, droughts, floods, and migration.
  - This information is **then supplemented by telephonic interviews** with small, marginal, and tenant farmers in the area.
  - These interviews incorporate **21 standardized questions designed to detect early signs** of distress.
  - The responses are then **mapped against seven indicators,**
    - Exposure to risks
    - Debt
    - Adaptive capacity
    - Landholding
    - Irrigation facilities
    - Mitigation strategies
    - Immediate triggers
    - Socio-psychological factors.
- **Interpretation of the Index:**
  - Based on the collected data and responses, the index will assign a value between **0 and 1** to indicate the level of distress.
    - **0 to 0.5: Low distress,**
    - **0.5 to 0.7:** Moderate" distress
    - **Above 0.7:** Severe" distress.
  - If the distress level is severe, the index **identifies the specific component contributing the most to farmers' distress** among the seven indicators.
- **Significance:**
  - Different agencies can then **carry out interventions to prevent income shocks to farmers** depending on the severity of distress.
  - The current solutions that are being thought upon are direct money transfer, mid-term release of claims under the government's crop insurance scheme in case of crop failures etc.
  - For instance, the insurance claims under **PMFBY (Pradhan Mantri Fasal Bima Yojana)** are only given **when a full survey is completed but,** in this case, if the index suggests severe distress in the coming few weeks, then the **government can provide interim relief under the scheme.**

What are the Government Initiatives to Mitigate Farmers' Distress?

- **PM Fasal Bima Yojana (PMFBY)**
- **PM Krishi Sinchai Yojana (PMKSY)**
- **electronic National Agricultural market (e-NAM)**
- **Soil health card**
- **Neem-coated urea**
- **In the 2022** budget, various steps were taken to support the farm sector.
- **Rythu Bandhu Scheme (Telangana)**
- Krushak Assistance for Livelihood and Income Augmentation (KALIA) scheme **(Odisha)**

Conclusion:

The index's implementation **holds the potential to mitigate farmers' income shocks** and contribute to the well-being of the agricultural community.

Source: DTE

Solar Flare

Why in News?

Recently, **the Sun emitted an X-class** solar flare, **disrupting radio communications** over parts of the **United States** and the **Pacific Ocean.**

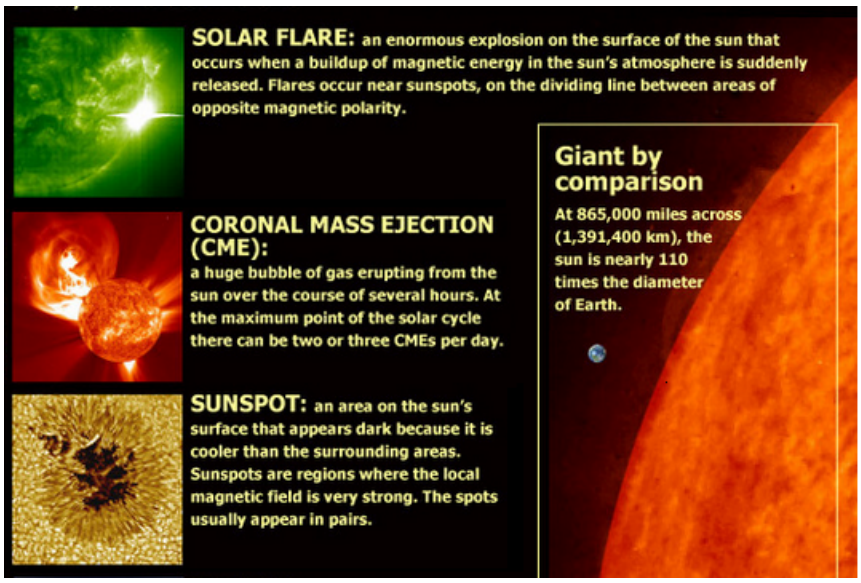
According to the **National Aeronautics and Space Administration (NASA)**, **the flare is classified as an X1.0 flare.**

What is a Solar Flare?

- **About:**
  - A solar flare **is a tremendous explosion on the Sun that happens when energy stored in 'twisted'** magnetic fields (usually above sunspots) is suddenly released.
  - They are **seen as bright areas on the sun and they can last from minutes to hours.**
  - In a matter of just a few minutes, **they heat the material to many millions of degrees and produce a burst of radiation across the** electromagnetic spectrum, including from radio waves to x-rays and gamma rays.
  - They **can affect radio communications, power grids and navigation signals and endanger astronauts and spacecraft.**
- **Categories:**
  - There are **five categories of solar flare according to their brightness in the x-ray wavelengths which include** A, B, C, M, and X; **each class is at least ten times more potent than the one before it.**
    - **X-class Flares (Big):** They are major events that can trigger radio blackouts around the whole world and long-lasting radiation storms in the upper atmosphere.
    - **M-class Flares (Medium-Sized):** They generally cause brief radio blackouts that affect Earth's polar regions. Minor radiation storms sometimes follow an M-class flare.
    - **C-class Flares**: Compared to X- and M-class events, C-class flares are small with few noticeable consequences here on Earth.
  - The **smallest ones are A-class** (near background levels), followed by other flares.

Note:

- Solar flares **are different from** Coronal Mass Ejections' (CMEs), which were once thought to be initiated by solar flares.
    - CMEs are huge bubbles of gas **threaded with magnetic field lines that are ejected from the Sun over the course of several hours.** Although some are accompanied by flares, **it is now known that most CMEs are not associated with flares.**



UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. If a major solar storm (solar flare) reaches the Earth, which of the following are the possible effects on the Earth?(2022)

1. GPS and navigation systems could fail.
2. Tsunamis could occur at equatorial regions.
3. Power grids could be damaged.
4. Intense auroras could occur over much of the Earth.
5. Forest fires could take place over much of the planet.
6. Orbits of the satellites could be disturbed.
7. Shortwave radio communication of the aircraft flying over polar regions could be interrupted.

Select the correct answer using the code given below:

(a) 1, 2, 4 and 5 only
(b) 2, 3, 5, 6 and 7 only
(c) 1, 3, 4, 6 and 7 only
(d) 1, 2, 3, 4, 5, 6 and 7

Ans: (c)

Source: DTE

Rapid Fire Current Affairs

NGT Imposed Fines on States and UTs

Recently, the **National Green Tribunal (NGT) has imposed fines of about Rs 80,000 crore on States and UTs** for non-compliance of sewage treatment and garbage disposal rules and for violating orders. The highest penalty has been imposed on **Tamil Nadu** followed by **Maharashtra, MP and UP.**

NGT **is a specialised body set up under the NGT Act, 2010** for effective and expeditious disposal of cases **relating to environmental protection and conservation of forests and other natural resources.** After Australia and New Zealand, **India became the 3rd country in the world to set up a specialised environmental tribunal.**

It **has five places of sittings; New Delhi is the principal place of sitting.** Decisions of the NGT are binding. It has the power to review its own decisions which can later be **challenged before the SC within 90 days.**

Read More: National Green Tribunal

SALVEX

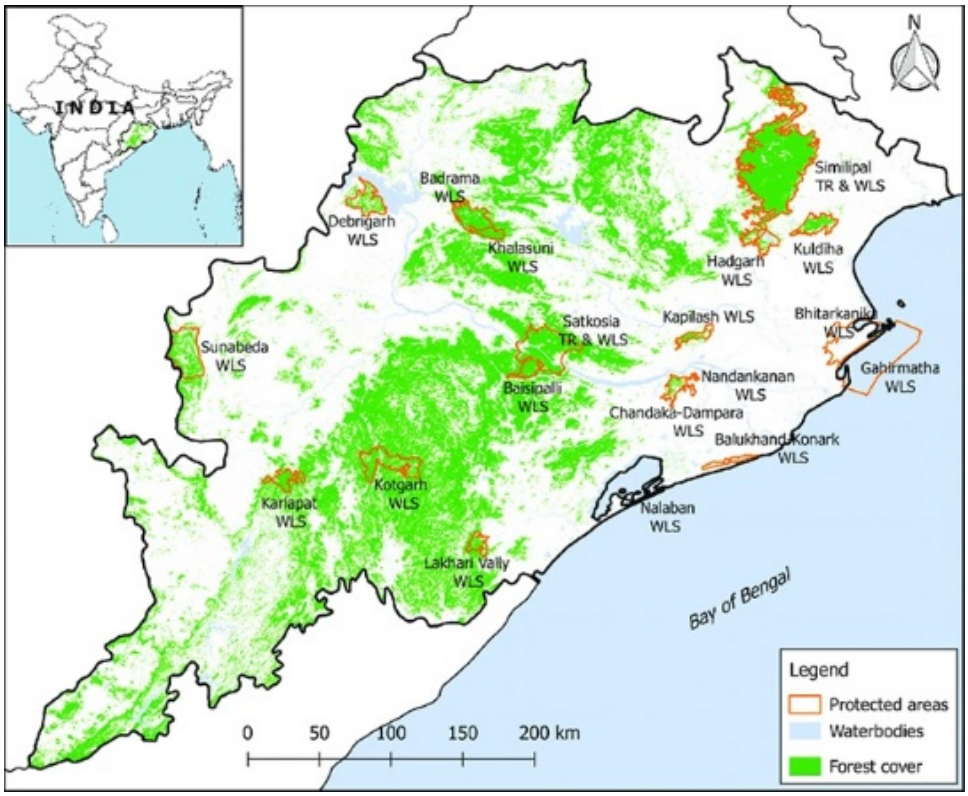
The **7th edition of the Indian Navy – US Navy (IN – USN) Salvage and Explosive Ordnance Disposal (EOD) exercise – SALVEX** was conducted recently at Kochi. IN and USN **have been participating in joint Salvage and EOD exercises since 2005.**

The constructive engagement on **operational terms is aimed at enhancing the skill sets of the Diving teams in a number of diverse disciplines** such as mine detection and neutralisation, wreck location and salvage.

Other exercises between India and US include Yudhabhayas, **Vajra Prahar**, **Malabar** (Multilateral), Red Flag 16-1, and **Exercise Cope India.**

Read More: India-US Relations

Similipal Tiger Reserve (STR)



The Odisha **government deployed armed police personnel at the Similipal Tiger Reserve (STR)** to protect the 2,700 km2 reserve area that is home to **unique melanistic tigers.** Melanistic **refers to having very dark skin/hair due to higher-than-normal level of melanin** (substance that gives pigmentation to skin/hair).

STR was **formally designated a tiger reserve in 1956 and brought under** Project Tiger **in the year 1973**. It was declared a biosphere reserve by the **Government of India in June, 1994. It has been part of the UNESCO World Network of Biosphere Reserve** since 2009. It is also a part of the **Mayurbhanj Elephant Reserve**. Geographically, **it lies in the eastern end of the eastern ghat.**

Read More: Similipal Tiger Reserve (STR)

India’s First Chatbot

The UT of Jammu and Kashmir (J&K) launched India's first Tele-MANAS chatbot which will start an instant conversation with people in distress.

Tele-MANAS is **a two-tier system.** Tier 1 comprises State Tele MANAS cells, **which include trained counsellors and mental health specialists.** Tier 2 comprises **specialists at District Mental Health Programme (DMHP)/Medical College resources for physical consultation and/or eSanjeevani for audio-visual consultation.**

eSanjeevani **is a national doctor-to-doctor telemedicine service that** strives to provide an alternative to conventional physical consultations via the digital platform. It is a **cohesive part of the Ayushman Bharat Digital Health Mission (ABDHM)**.

Read More: Prioritising Mental Well-being
