



2022



# YOJNA IAS

## WEEKLY CURRENT AFFAIRS

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**22/08/2022 TO 28/08/2022**

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# CURRENT AFFAIRS

## AUGUST 2022



### Chronic fatigue syndrome and euthanasia



- Recently, a petition has been filed in the Delhi High Court to prevent a person suffering from Chronic Fatigue Syndrome since 2014 from going to Europe for medical assisted euthanasia.

#### Chronic fatigue syndrome

- It is a serious and debilitating disease that affects the nervous system, the immune system and the body's energy production system.
- Also known as "myalgic encephalomyelitis".
- Possible consequences are viral or bacterial infections, hormonal imbalances and genetic defects.
- It can affect anyone from children to adults.

#### Symptoms:

- Illness causes a significant decrease in the ability to work.

- The condition becomes more severe if this type of fatigue or debilitating illness lasts more than 6 months.
- The most recognizable symptom is post-exercise malaise (PEM).
- Feeling “depleted” in physical/mental energy even after minor activities like simple petty shopping or brushing teeth.

### **Other symptoms:**

- Trouble sleeping, difficulty thinking, memory or concentrating, dizziness/lightheadedness, headache, muscle aches, joint pain, flu-like symptoms, tender lymph nodes, and digestive problems.

### **Remedy:**

- There is no specific type of test available for CFS disease, so it is diagnosed on the basis of symptoms, for this blood and urine tests may also have to be done.
- Doctors have described ways of dealing with disease symptoms such as “pacing” in which patients learn to balance rest and activity to prevent accidents caused by exertion.

### **Euthanasia:**

- Euthanasia is the practice of ending the patient’s life in order to limit the suffering of the patient (the patient in question will usually be mentally ill or experiencing great pain and suffering).

### **Type:**

#### **Active Euthanasia:**

- ‘Active euthanasia’ is a situation when a person (patient) seeking euthanasia is assisted in this act, such as injecting poison, etc. It is also sometimes called “invasive” euthanasia.

### **Passive Euthanasia:**

- Willfully allowing the patient to die by stopping artificial life support.

### **Voluntary Euthanasia:**

- With the consent of the patient.

### **Involuntary euthanasia:**

- Without the patient's consent, for example if the patient is unconscious and his wishes are unknown.

### **Legal Provisions in India:**

- In 1994, the Supreme Court of India in *Gyan Kaur v State of Punjab* held that both suicide and euthanasia were illegal.
- The 'right to life' does not include the right to death. It therefore set aside the decision of a two-judge bench in *P. Rathinam v. Union of India* which held section 309 (attempt to commit suicide) of the Indian Penal Code as unconstitutional.
- In 2011, in *Aruna Ramchandra Shanbaug v Union of India*, the Supreme Court held that passive euthanasia can be allowed in exceptional circumstances and under the strict supervision of the apex court.
- In the year 2018, the Supreme Court declared the right to die with dignity as a fundamental right, allowing passive euthanasia in the country.

**Swadeep Kumar**

## Manual scavenging



- The Ministry of Social Justice and Empowerment (MoSJ&E) is preparing to conduct a nationwide survey to enumerate all sanitation workers engaged in cleaning sewers and septic tanks.

### Key points:

- This census is part of the National Action Plan for Mechanized Sanitation Ecosystem (Namaste) scheme and will be conducted in 500 AMRUT (Atal Mission for Rejuvenation and Urban Transformation) cities
- It will replace the Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) introduced in 2007 with its merger.
- Program Monitoring Units (PMUs) will be set up for 500 AMRUT cities under the exercise.
- Once this exercise is completed in 500 cities, it will be expanded across the country to enable them to easily access government benefits such as upskilling and loans and capital subsidies.

### Namaste scheme:

- It was launched in July 2022.
- Namaste scheme jointly launched by the Ministry of Housing and Urban Affairs and MoSJ&E, aims to eradicate unsafe sewer and septic tank cleaning practices.

## **Purpose:**

- Zero deaths in sewage cleaning in India.
- All cleaning work should be done by skilled workers.
- No sanitation workers came in direct contact with human excreta.
- Safai Karyakartas are mobilized into Self Help Groups (SHGs) and empowered to run sanitation enterprises.
- Strong supervision and monitoring system at National, State and Urban Local Body (ULB) levels to ensure enforcement and monitoring of safe cleaning operations.
- Raising awareness among sanitation service seekers (individuals and institutions) to avail services from registered and skilled sanitation workers.

## **Calculation Required:**

- A minimum of 351 deaths have occurred in manual scavenging since 2017.
- It aims to streamline the process of rehabilitation of Safai Karamcharis.
- This will make it easier for them to access government benefits such as upskilling and loans and capital subsidies.
- To link the empaneled sanitation workers with the Swachh Udyami Yojana, through which the workers themselves will be the owners of the cleaning machines and the government will ensure that work is available at the municipal level.
- Swachh Udyami Yojana has twin objectives – to provide livelihood to sanitation and sanitation workers and to free manual scavengers to achieve the overall goal of “Swachh Bharat Abhiyan”.

## **Manual Scavenging:**

- Manual Scavenging or manual scavenging is defined as “the removal of



human excreta from public roads and dry latrines, cleaning of septic tanks, drains and sewers”.

- India banned the practice under the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (PEMSR).
- The Act prohibits any person from manual scavenging, carrying, disposing of or otherwise disposing of human excreta in any manner.
- The Act recognizes manual scavenging as an “inhuman practice”.

### **Major reasons for manual scavenging currently in use:**

#### **Indifferent attitude:**

- In many independent surveys, the lack of proactiveness on the part of the state governments in curbing this practice is seen and this practice is prevalent only under their supervision.

#### **Issues arising due to outsourcing:**

- At times, local bodies delegate sewer cleaning works to private contractors. However, many of those contractors do not provide proper equipment and sanitation resources for the sanitation workers.
- In case of death of workers due to suffocation, these contractors deny any relation with the deceased.

#### **Social issue:**

- This practice is inspired by the division of caste, class and income.
- It is linked to the caste system of India where the so called lower castes are expected to do this work.
- In 1993, India banned the employment of people as manual scavengers (The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993), however, the stigma and discrimination still associated with it has sustained.

- This makes it difficult for manual scavengers to secure alternative livelihoods.

### **Enforcement and shortage of unskilled workers:**

- The lack of implementation of the Act and exploitation of unskilled laborers is still prevalent in India.

### **Steps taken to tackle the problem of manual scavenging:**

#### **The Prohibition of Employment as Manual Scavengers and their Rehabilitation (Amendment) Bill, 2020:**

- It proposes to completely mechanize sewer cleaning, introduce 'on-site' protection methods and provide compensation to manual scavengers in case of sewer deaths.
- It will amend the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.
- However, it has not yet received the approval of the cabinet.

#### **Prohibition of Employment of Manual Scavengers and their Rehabilitation Act, 2013:**

- The 2013 Act, replacing the 1993 Act, outlaws all manual scavenging cleaning of insanitary latrines, open drains, or pits, in addition to a ban on dry latrines.

#### **Construction and Maintenance of Insanitary Toilets Act 2013:**

- It outlaws the construction or maintenance of insanitary latrines, and the hiring of anyone to do manual scavenging, as well as dangerous cleaning of sewers and septic tanks.
- It also provides a constitutional obligation to provide alternative employment and other assistance to manual scavengers as compensation for historical injustice and humiliation.



## **Prevention of Atrocities Act**

- In 1989, the Prevention of Atrocities Act became an integrated measure for sanitation workers, as more than 90% of the manual scavengers belonged to the Scheduled Castes. This has proved to be an important milestone in freeing manual scavengers from specified traditional occupations.

## **SafaiMitra Safety Challenge:**

- It was launched by the Ministry of Housing and Urban Affairs in the year 2020 on World Toilet Day (November 19).
- Challenge for all was launched by the government in April 2021 to mechanize sewer-cleaning for all states. Along with this, if a person needs to enter the sewer line in case of unavoidable emergency, he should be provided with proper equipment/material and oxygen cylinder etc.

## **‘Swachhta Abhiyan App’:**

- It has been developed to identify and geotag the data of insanitary latrines and manual scavengers so that insanitary latrines can be replaced with sanitary latrines and rehabilitated to provide dignity of life to all manual scavengers can go.

## **Supreme Court’s decision:**

- A Supreme Court order in 2014 made it mandatory for the government to identify all those who died in sewage works since 1993 and to pay Rs 10 lakh as compensation to each person’s family.

## **Conclusion:**

- Swachh Bharat Mission has been identified as a top priority area by the 15th Finance Commission and the funds available for smart cities and urban development provide a strong opportunity to address the problem of manual scavenging.
- To address the social sanction behind manual scavenging, it is necessary

to first acknowledge and then understand how and why manual scavenging continues in the caste system.

- The state and society need to take active interest in this issue and make a proper assessment and look into all possible options to end this practice later.

**Swadeep Kumar**

## **A Humble tribute to Atal Bihari Vajpayee: An Architect of Suraj (Good Governance)**

**Context:** On 16th Aug, the nation is paying its humble tribute to the great leader of Indian politics Atal Bihari Vajpayee on his fourth death anniversary

**Introduction:** Atal Bihari Vajpayee, ex-prime minister of India and a great leader of Indian politics who had set some values for Indian politics. He had been the only leader of Indian politics who had never compromised with his political and ethical values on the coast of the political benefits. He always believed in the sanctity of political tools. Once he had to resign from the prime ministership and he could not manage only one vote in Loksabha because he did not accept unethical means of politics.

### **Biography of Atal Bihari Vajpayee**

Atal Bihari Vajpayee was the first noncongress prime minister. Before being prime minister, he served as the foreign minister during Morar Ji Desai. He founded a new political party Bhartiya Janta Party in 1980 and challenged the political monopoly of the congress and finally, he succeeded to form a government in 1996 first time

### **Achievement of Atal Bihari Bajpai**

However, he launched many projects for the well-being of this country. But among his all project, Pradhan Mantri Gram Sadak Yojana and the National Highways Development Project were two significant projects.

During his period, the 86th constitutional amendment was brought through

which the right to education was given to every child before 14 years (A new article 21 A was added). The Vajpayee government launched the Sarva Shiksha Abhiyan campaign. He knew the importance of primary education for the development of any nation

The Golden Quadrilateral connected four meteors Delhi, Bombay, Kolkata, and Chennai through highways. For increasing the investment in the development of the country, he also prompted privatization. therefore he formed a department under the ministry of finance (De investment Department). For smooth public transport, he launched the Delhi metro. Nowadays, Delhi Metro has become the lifeline of the citizen of the Delhi

One of the most important achievements of Atal Bihari Vajpayee during his career was the nuclear testing in Pokhran. After that, India has been also declared nuclear power.

Atal Bihari Vajpayee gave the slogan for the country- Jai jawan, Jai Kishan, and Jai Vigyan. During his period the telecom sector also developed rapidly because he opened the door for foreign investment in the telecom sector also

## **Conclusion**

As per the above discussion, Atal Bihar Vajpayee was one of the greatest prime ministers. Who lead the foundation of a new era of scientific development in India. During his time a Kargil war was fought and he showed the world that India believes in nonviolence but India is not a coward and India's army threw the infiltrators out of the territory of India. He was the only prime minister who always maintained the dignity and purity of Indian politics. He followed the high values of the ethics of politics

**Anshul**

# Lake Garda: Italy



- Italy's worst drought has caused the country's largest Lake Garda to reach its lowest water level in decades.
- As a result, underwater rocks became visible and the water temperature warmed to the average temperature of the Caribbean Sea.

## Garda Lake

- Northern Italy has received very little rainfall for months, and snowfall has decreased by 70% in 2022, drying up important rivers such as the Po, which flow through Italy's agricultural and industrial regions.
- The dry condition of Italy's longest river, the Po, caused billions of euros in damage to farmers who usually depend on it to irrigate their fields and paddy.
- Authorities allowed more water from Lake Garda to flow into local rivers to make up for the damage.
- But at the end of July 2022, they reduced the amount for the lake and its associated economically important tourism.
- The lake came to its lowest level with a large amount of water diverted to the rivers.

## **Drought**

- Drought is generally thought of as a decrease in rainfall/precipitation over an extended period, usually one season or more, resulting in water scarcity that adversely affects vegetation, animals and/or people.

### **Type:**

#### **Meteorological Drought:**

- It is based on the degree of dryness or lack of rainfall and the long dry spell.

#### **Hydrological Drought:**

- It is based on the effect of rainfall deficit on water supply such as stream flow, reservoir and lake levels and decline in groundwater level.

#### **Agricultural Drought:**

- It refers to the impact on agriculture by factors such as lack of rainfall, lack of water in the soil, low ground water level or the level of reservoir required for irrigation.

#### **Socio-economic drought**

- It considers the effect of drought conditions (meteorological, agricultural, or hydrological droughts) on the supply and demand for certain economic goods, such as fruits, vegetables, grains, and meats.

### **Cause:**

- Variability in rainfall is a major cause of drought. The percentage of variability is inversely proportional to the total rainfall.
- Deviation in the course of monsoon winds, or early withdrawal of monsoon, can also create drought conditions in an area.
- Drought can also occur due to forest fire, due to which the soil of that area becomes unsuitable for agriculture and at the same time there is a shortage of water in the soil.
- In addition to climate change, land degradation results in increased

drought.

## **Solution:**

### **Water management:**

- Saving, reusing treated water, rainwater harvesting, desalination or direct use of seawater for salt-loving plants.

### **Farmer Managed Natural Regeneration (FMNR):**

- Enabling growth of native sprout trees through selective pruning of shrubs.
- Trimmed tree residues can be used to provide mulching for fields, which increases the water retention capacity of the soil and reduces evaporation.

### **Other Remedies:**

- To protect the soil by fencing for soil protection from sand, wind gusts etc.
- Need for enrichment and over-fertilization of soil.
- Using water-efficient irrigation equipment such as micro and drip irrigation, soccer hose systems, etc.

### **Government of India Initiatives:**

- Integrated Feed Management Program
- National Mission on Green India

### **Desert Development Programme:**

- It was started in the year 1995 to reduce the adverse effects of drought and rejuvenate the natural resource base of the marked desert areas.

**Swadeep Kumar**



## Gang rape: Supreme Court



- Recently, a petition has been filed in the Supreme Court by a 29-year-old man serving life sentence for the gang rape of a nine-year-old girl in Maharashtra.
- The Supreme Court will examine the validity of a law that gives either life imprisonment or death sentence to a person convicted of gang rape of a child under the age of 12 without giving him an opportunity to atone for the crime or make amends.

### Issues highlighted in the petition:

#### Restricting Judge's Choices:

- It argued that Section 376DB of the Indian Penal Code (gang rape of a child below 12 years of age) limited the options available to trial judges to either punishment for the remainder of the person's life or the death penalty.
- However, a minimum, compulsory punishment has been provided under the provision of life imprisonment.

#### Discrepancy prevailing in the year 2018 amendment:

- The petitioner further argued that there is an anomaly in the penal system created through the criminal amendments made in August 2018.
- Section 376DB was introduced in the year 2018 when the penal code was amended to provide for harsher punishment for the offense of rape.

### **Arbitrary:**

- Whereas in Section 376-AB, a person convicted of raping a girl below the age of 12 years had a provision of imprisonment of not less than 20 years.
- Whereas Section 376-DB provides for a mandatory minimum sentence of life imprisonment for every person involved in the gang-rape of a girl below the age of 12 years.
- Both the sections provide for the death penalty as the maximum punishment.
- This life imprisonment without remission can mean 60-70 years in jail for a person who is less than 20 years of age.

### **Violation of Right to Life:**

- Section 376DB did not give any option to the lower court except the higher punishment of life imprisonment or death sentence.
- The petition argued that Section 376DB violates Article 21 (right to life) and Article 14 (right to equality) of the Constitution.

### **Global Scenario:**

- Given the global context of the issue, the European Court of Human Rights in *Winter v. United Kingdom* ruled that life imprisonment without a real possibility of parole was a violation of Article 3 of the European Convention on Human Rights.
- It was held that life imprisonment could not be treated as punishment only because they did not provide any opportunity of atonement to the prisoner and such sentences were inconsistent with respect for human dignity.
- The United States Supreme Court held that the inconsistent sentence in extreme cases violated the Eighth Amendment, which prohibits cruel and unusual punishment to the US Constitution.

### **Approach of the Supreme Court:**

- The Supreme Court has already quashed the compulsory death penalty

as unconstitutional and therefore called for consideration of this question.

- Further, it asked the petitioner along with an Additional Solicitor General to make written submissions and proposals on the issue.

### Historical perspective:

- In 1983, in *Mithu v. Punjab*, the Supreme Court ruled that Section 303 of the IPC was unconstitutional to the extent that a person who committed murder while serving a sentence of life imprisonment in any other case would be given compulsory death sentence.
- Section 303 mandates that the Supreme Court should not impose any punishment other than the death penalty in such cases.

Swadeep Kumar

## The Role of Subhash Chandra Bose in National Movement: An Analysis

**Context :** Today, we are paying our humble tribute to our great freedom fighter Subhash Chandra Bose on the occasion of his 77<sup>th</sup> death anniversary. This day is celebrated as the Netaji Diwash.

### Introduction

Subhash Chandra Bose was one of the most prominent freedom fighters of India. He was not only a freedom fighter of India but he is a good leader of congress also. However he had a different opinion from Mahatma Gandhi on some issues but he respected Gandhiji and in his first speech delivered from Singapore, he called Gandhi the Father of the nation “Bapu”.

Subhash Bose preferred any tools through which the freedom of India could win irrespective of the sanctity of those tools. But Gandhi believed in the sanctity of the tools always. Gandhi did not want to take any support from

Nazi Germany and fascist Italy to defeat British because of the racist and despotic nature of both countries

After the Civil disobedience movement, Subhash rose as the unanimously accepted leader of the congress. This was the time when the stature of Subhash seemed larger than the stature of Gandhiji. In the presidential election of congress in 1939, he successfully defeated the Gandhi-supported candidate Pattabhisita Rammiya. However, he could not complete his tenure because of the resignations of many leaders from the working committee of congress. And Subhash realized that he could not work independently inside the congress without the support of Gandhian leaders, therefore he also resigned and formed his own political party inside the congress – Forward Block.

### **Biography of Subhash**

Subhash was born in Cuttack on 23rd Jan 1897 in an elite family. The birth anniversary of Subhash is also celebrated as the Parakram Diwash. He took the civil services exams and got selection but he did not join and resigned. He joined congress in 1921 and participated in Non-cooperation Movement. He openly criticized the decision of Gandhiji regarding the withdrawal of the Non-Cooperation Movement . he called Gandhi Ji a Betrayer. He was elected the congress president in 1938 and once again he was reelected as the president of the congress in 1939. with the support of the enemies of Britain in the second world war, he wanted to fight for the liberation of India. He reorganized the Indian National Army and he also formed the Free government of India in exile. The axis powers (Japan, Germany, and Italy) recognized the government of India in exile .he established the headquarter of the INA at Rangoon. He formed three Brigades of INA- Gandhi, Nehru, and Subhash brigade. This shows that despite being the difference in the ideologies of Gandhi and Nehru, Subhash respected both.

### **Ideology of Subhash**

Subhash was an extremist and he believed in socialism. The tools of the Subhash were similar tools of Karl Marx. He has influenced Lenin also and he also want to liberate India through violent means. But here it should not be understood, he was on the same path which was adopted by Bhagat Singh-

type revolutionaries. He also wanted to make people aware first that political tools should be used against British rule. He also believes in mass protest. He was the core supporter of complete freedom. During the proposal of the Nehru Report, he openly condemned the demand of the dominion status of India. Here he got the support from Jawahar Lal Nehru.

In 1939, he also wanted to launch a big mass protest against British rule but Gandhiji was not ready because Gandhi Ji was doubtful regarding the support of the masses and the mass protest would be interpreted by the British rule as a pro-Racist protest. On this issue, he left the congress

### **Gandhi, Nehru, and Subhash: A comparative analysis**

Gandhi, Nehru, and Subhash, all wanted to liberate India but both had different tools to liberate India. Gandhi believed in the sanctity of the tools and in his view, the achievement would be long-lasting if the tools are pure and sanctified. While Subhash believed in achievement, he was ready to use any tools to get success. All these three were socialist. Gandhi believed in the concept of Sarvodaya. Through trusteeship, he wanted to bring equality. While Nehru and Subhash believed in the existence of the classes. Subhash believed in class struggle and through violent means, he propagated to establish socialism. Nehru wanted to establish socialism through non-violent means. Through political reforms, socialism could be established.

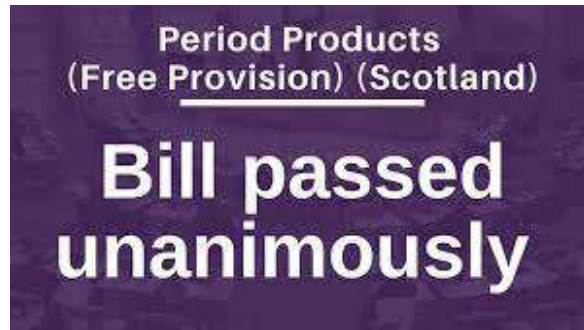
### **Conclusion**

As per the above discussion, it is clear that Subhash was agreed with Gandhi and Nehru up to a certain extent. The ideology of Subhash was not quite different from the ideology of Gandhi and Nehru. Subhash also loved Gandhi and Nehru. Despite having ideological differences Subhash also moved on the path of freedom of India shown by the Gandhiji. This is the day today we should pay our humble tribute to a great leader of India

**Anshul**



## Free Period Product: Scotland



- Scotland has become the first nation in the world to legally protect the right to access free period products and to make period products free to all by passing the Period Products Act.
- Period Poverty occurs when low-income people cannot afford or access essential period product/s (such as tampons, sanitary pads, etc.).

### Scotland's Initiative

- Under the Period Products Act, schools, colleges and universities, as well as local government bodies, must provide a variety of period products in their bathrooms for free.
- Every council in Scotland is required to work with local communities to determine the best access point for menstrual/period products.

### Accessibility:

- The mobile phone app (PickUpMyPeriod) also helps people find the nearest location such as a local library or community center where they can get period products.
- Period products will be available in libraries, swimming pools, public gyms, community buildings, town halls, pharmacies and doctor's offices.

### Status of Menstrual Hygiene in India:

**According to a study by the United Nations Children's Fund (UNICEF) in the year 2011:**

- Only 13% of girls in India are aware of menstruation before menstruation.
- 60% of girls drop out of school because of menstruation.
- 79% faced low self-confidence due to menstruation and 44% were embarrassed



and humiliated by restrictions.

- Menstruation adversely affects women's education, equality, maternal and child health.

### **National Family Health Survey 5:**

#### **Use of period products in women aged 15-24 years:**

- In seventeen states and union territories 90% or more of women use period products.
- The share of women using period products in Puducherry and Andaman and Nicobar Islands was 99%.
- Tripura, Chhattisgarh, Assam, Gujarat, Meghalaya, Madhya Pradesh and Bihar – 70% or less of women use period products.
- Bihar is the only state where the figure of less than 60 percent has been recorded.

#### **The top three states that reported an increase in women's use of period products from NFHS 4 to NFHS 5:**

- Bihar: 90%
- Odisha: 72%
- Madhya Pradesh: 61%

### **Government of India Initiative for Menstrual Hygiene:**

#### **Cleanliness plan:**

- Shuchi Yojana aims at creating awareness about menstrual hygiene among adolescent girls.
- It was launched in 2013-14 initially in a centrally sponsored form.
- However, the Center asked the states to take over the scheme from 2015-16.

#### **Menstrual Hygiene Plan:**

- Menstrual Hygiene Scheme 2011 focused on promoting menstrual hygiene among adolescent girls (10-19 years) in rural areas of selected districts.

#### **Sabla Program:**

- It was implemented by the Ministry of Women and Child Development.

- It focuses on nutrition, health, hygiene and reproductive and sexual health.

### **National Rural Livelihood Mission:**

- It helps self-help groups and small manufacturers to manufacture sanitary pads.

### **Swachh Bharat Abhiyan and Swachh Bharat: Swachh Vidyalaya (SB:SV):**

- Menstrual hygiene management is also an integral part of the Swachh Bharat Mission.

### **Guidelines for Gender Issues in Sanitation (2017):**

- These have been developed by the Ministry of Drinking Water and Sanitation to ensure gender equality and empowerment of women and girls with regard to sanitation.
- Safe and effective menstrual hygiene management is an essential component for better and stronger development of adolescent girls and women.

### **National Guidelines on Menstrual Hygiene Management:**

- It was released by the Ministry of Drinking Water and Sanitation in the year 2015.
- It addresses every component of menstrual hygiene, including raising awareness, driving behavior change, increasing demand for better hygiene products, and capacity building.

### **Conclusion:**

- Government of India should also consider Scotland's point of view and provide period product or at reasonable price/discount.
- Government can also promote small scale sanitary pad manufacturing units to make low cost pads more easily available, this will also help in income generation for women.
- The government needs to provide directed efforts for awareness and education about menstrual and menstrual hygiene, and access to safe products, water, sanitation and hygiene (WASH) infrastructure.
- Although menstrual health cannot be achieved through government efforts alone, community and family level interventions are necessary as a social issue.

**Swadeep Kumar**

# Visit of Gabon Delegation to India



- Recently a delegation from Gabon visited India and interacted with the Indian business community, also India congratulated Gabon on its Independence Day (17 August).
- Earlier, the Vice President of India visited Gabon, where he signed two MoUs.

## What are MoUs:

- Establishment of a Joint Commission between the Governments of India and Gabon.
- Diplomatic Training Institute, Sushma Swaraj Institute of Foreign Services and Gabonese Ministry of Foreign Affairs.
- India signed to work with Gabon to strengthen cooperation in various fields at the bilateral, regional and multilateral levels.

## India-Gabon Partnership:

### Diplomatic:

- India and Gabon have had cordial and friendly relations since the pre-independence era of Gabon.
- The former Vice President of India visited the African nation of Gabon in May 2022, which was India's first high-level visit to Gabon.
- Both India and Gabon currently serve as non-permanent members of the United Nations Security Council (UNSC).

### Trade and commerce:

- Bilateral trade between the two countries has reached US\$ 1.12 billion in the year 2021-22.
- India is the second largest destination for exports from Gabon.
- In the business sector, more than 50 Indian companies are engaged in the Gabon

Special Economic Zones.

### **Cooperation on International Forum:**

- Both India and Gabon are members of the Non-Aligned Movement (NAM).
- NAM focuses on contemporary mainstream issues of relevance to the developing world.
- Gabon supports India's interests in various international fora.
- India congratulated Gabon on being elected as a non-permanent member of the United Nations Security Council for the period 2022-23.
- India has supported the Azulwini consensus and the position of ordinary Africans enshrined in the Sirte Declaration.
- The Azulwini Consensus is an agreement on the reform of international relations and the United Nations, agreed upon by the African Union.
- It calls for a more representative and democratic Security Council, in which Africa is represented, like other countries of the world.
- Sirte Declaration (1999), was a resolution adopted to establish the African Union.

### **International Solar Alliance:**

- Gabon is one of the first countries to sign and ratify the International Solar Alliance Agreement.
- India has assured to provide all possible help to Gabon to achieve its renewable energy goals.
- Gabon plans to achieve 100% clean energy by 2030.

### **Education:**

- Many Gabon citizens follow scholarship/training programs offered by India under the Indian Technical and Economic Cooperation (ITEC) and ICCR schemes.

### **Energy Cooperation:**

- India imported crude oil worth about US\$ 670 million from Gabon in the year 2021-22, making it an important partner for India's energy security requirement.

### **Indian Diaspora:**

- The people of the Indian community are basically engaged in infrastructure proj-

ects, trade, export of wood and metal scrap.

- The Indian diaspora is making significant contributions to various areas of Gabon.
- The Indian community in Gabon has kept Indian culture alive and major Indian festivals are celebrated together by the entire community.

## Conclusion

- There is a need to enhance India-Gabon cooperation in other areas such as green energy, services, health and agriculture.
- Both countries should widen their economic partnership to attract investments.
- There is immense potential for cooperation in agriculture such as knowledge transfer in the agricultural sector from India to Gabon.

**Swadeep Kumar**

## Historical Significance of Krishna Janmasthanmi



**Context:** Today, the famous Hindu festival Janmasthanmi is being celebrated by Hindus across the world. This festival is being celebrated in Islamic countries like Pakistan, Bangladesh, UAE, etc by Hindu communities as well as in many European countries.

## Introduction

Krishna Janmasthanmi has celebrated as f the Birth date of the lord Krishna, the incarnation of Vishnu. The worship of the lord Krisha has been practiced for 3-4th century BC. The birthplace of the Krishna is considered Mathura, one of the important Mahanpada existing during the 6th century BC. As per the mythology, Krishna took birth for the elimination of evil and demons and the re-establishment of righteousness (Dharma). In Bhagwat Gita, it has been clearly described that

*Yada Yada hi Dhramasya Glanir bhavata bharata*

*Abhyusthanamadharsa tadatmanam srijamyham*

*Paritranaya cha Sadhunam Vinashaya cha drshkritam*

*Dharma Sansthapanrthaya Sambhavani Yuge Yuge*

## History of the lord Krishna

Lord Krishna is described as the disciple of the sage Ghor Angiras as per the Chandogya Upanishad. In this Upanishad, lord Krishna is described as the Vrishni tribe who were pastorals. During the Kushan period, many sculptures related to lord Krishna have been received from the Mount of Mathura (khinkali Teela). The Vasu Doorjamb Inscription is an early 1st-century CE Sanskrit inscription in Brahmi script dedicated to the deity Vāsudeva, related to the Vaishnavism tradition of Hinduism. Mathura was the center of the Jain culture also

There are descriptions of the punch Vrishniveer in the inscription (Besnagar Inscription). The tribe of Vrishni is also known as Asthdyayi of Panini. The cult of the Vrishni heroes existed as an independent cult in Mathura. As per the Mora well inscription **Punch, vrashniveers** are worshiped by a particular clan.

The Vrishni heroes are generally identified as

1. Vasudeva- Son of the Devaki and Baasudeva
2. Sankarshan – Son of Rohini and Vasudeva. He is also known as the Balrama or Haldhara (Representing the significance of agriculture)
3. Praduman- Son of basudeva Krisna and rukmini
4. Samba – Son of vasudeva and Jamvanti
5. Aniruddh – Son of Pradyumna

## Historical Significance of the Lord Krishna

The incarnations of the Vishnu explain about the gradual development of the socio-cultural milieu. Krishna is described as the 9th incarnation of Vishnu who believed in diplomacy. For the victory and political success, Krishna supported the diplomatic tools(Unrighteousness tools, and in many places Krishna violated the rules of the war). In fact, it explains the political milieu of 6-5th century BC when the various states were emerging and conflicting and merging with each other.

## Conclusion



As per the above discussion, it is almost clear that the Krishna Janmasthan festival is not a new festival but it has been celebrated in India for hundreds of years not only in northern India but also in southern India. During the Chola period, many copper sculptures of Krishna are recovered from the Chola dynasty. However Chola kings were the followers of Shaivites but still, the sculptures of Krishna explain the historical significance of Janmashtami. In India, every festival giving some messages to the world is celebrated. This festival also gives a message to the world that the end of evils is inevitable.

**Anshul**

## Resolve to make India a developed country



- Recently, in his Independence Day speech, the Prime Minister has set a target of completing Pancha Prana by the year 2047 (when India's independence will be 100 years old).
- The first resolution is to make India a developed country in the next 25 years.
- The remaining pledges for the year 2047 are – eradication of traces of slavery, taking pride in our heritage, ensuring unity in diversity and performing civic duties.

### **Developed country:**

- A developed country is industrialized, with a higher quality of life, a developed economy, and advanced technological infrastructure relative to less industrialized nations.
- Whereas developing countries are those which are in the process of industrialization or pre-industrial and are almost entirely agricultural.

**The most common criteria for evaluating the amount of economic growth are:**

**Gross Domestic Product (GDP):**

- Gross Domestic Product (GDP) or the monetary value of all goods and services produced in a country in a year.
- Countries with high GDP and per capita income (the amount of earned income per capita) are considered developed.

**Dominance of Tertiary and IV Sectors:**

- Countries that are dominated by the tertiary (companies providing services such as entertainment, financial and retailers) and the fourth sector of industry (knowledge-based activities such as information technology, research and development, as well as consulting services and education) to develop them. as has been described.

**Post-Industrial Economy:**

- In addition, developed countries generally have more advanced industrial economies, which means that the service sector provides more wealth than the industrial sector.

**Human Development Index:**

- Other parameters are infrastructure measurements, general standard of living and the Human Development Index (HDI).
- Since the HDI focuses on indices of life expectancy and education, and does not take into account factors such as per capita net wealth or relative quality of goods in a country.
- This is why some of the most advanced countries including G7 members (Canada, France, Germany, Italy, Japan, UK, US and EU) and others do not perform very well in HDI and countries like Switzerland are high in HDI.

**Definition of developed country:**

- There is no unanimous definition of a developed country.
- Agencies such as the United Nations, the World Bank, the World Trade

Organization and the World Economic Forum use their indicators to classify developed and developing countries.

- For example, the United Nations classifies countries into low, low-middle, upper-middle and high-income countries.
- This classification is based on the per capita Gross National Income (GNI) of a country.
- Low-income economy: up to \$1,085 per capita GNI
- Lower middle-income: GNI per capita of up to \$4,255
- Upper-middle-income: \$13,205 GNI per capita
- High-income economy: GNI per capita above \$13,205

### **Opposed to the United Nations Classification:**

- The UN classification is not very accurate as it focuses on limited analytical value. Due to which only the top three countries – US, UK and Norway – are classified as developed countries.
- Whereas, there are about 31 developed countries, and remaining 17 (excluding transitional economies) are designated as developing countries.
- In the case of China, the country's per capita income is closer to that of Norway than to Somalia.
- China's per capita income is 26 times that of Somalia while Norway's is almost seven times that of China, but still, it has got the tag of a developing country.
- On the other hand, countries like Ukraine, which has a per capita GNI of \$4,120 (one third of China), are designated as transition economies (instead of a developed nation).

### **India's position:**

- India is currently far behind developed countries as well as some developing countries.
- India is the sixth largest economy in terms of GDP but India lags behind

Bangladesh in terms of per capita income.

- Furthermore, China's per capita income is 5.5 times that of India and nearly 33 times that of the UK.
- To map this inequality and compare it with scores from India and other countries, we look at the Human Development Index (HDI),
- India's performance has been very good.
- Life expectancy at birth in India has increased from about 40 years in 1947 to about 70 years now.
- India has also made considerable progress in the enrollment of education at all the three levels of primary, secondary and tertiary.
- India needs to increase per capita income to be called a developed country because people as a unit matter more.
- Inequality in per capita income is often reflected in the overall quality of life in different countries.

### **Areas of lack of progress in India:**

- According to the 2018 Diagnostic Report on India by the World Bank, despite being the third largest economy in terms of purchasing power parity, most Indians are still relatively poor compared to people from other middle-income or wealthy countries.
- The consumption level of about 10% of Indians exceeds the commonly used limit of US\$10 per day (PPP) expenditure for the global middle class.
- In addition, other groups such as the food share of consumption suggest that even rich households in India must see a substantial expansion of their total consumption to reach the level of poor households in rich countries.

### **India to achieve the goal of a developed country by 2047:**

- According to a 2018 World Bank report, by 2047, the centenary of its independence, at least half of its citizens could join the ranks of the global middle class.

- This would mean that households would have access to better education and health care, clean water, better sanitation, reliable electricity, a safer environment, affordable housing and enough discretionary income to spend on leisure activities.
- In addition, the report significantly improved public service delivery along with preconditions for income above the extreme poverty line.

## **Achievements of India since Independence:**

### **Gross Domestic Product (GDP):**

- India's GDP increased from Rs 2.79 lakh crore in the year 1950-51 to an estimated Rs 147.36 lakh crore in the year 2021-22.
- India's economy currently stands at US\$ 3.17 trillion, which is expected to become the world's fifth largest economy in the year 2022.

### **Foreign currency:**

- India's foreign exchange reserves have increased from Rs 911 crore in the year 1950-51 to Rs 45,42,615 crore in the year 2022.
- India now has the fifth largest foreign exchange reserves in the world.

### **Food production:**

- India's food grain production has increased from 50.8 million tonnes in 1950-51 to 316.06 million tonnes now.
- Literacy Rate:
- Literacy rate has also increased from 18.3% in the year 1951 to 78%. The female literacy rate has increased from 8.9% to over 70%.

**Swadeep Kumar**

# FIFA ban on India



- Recently the Federation Internationale de Football Association (FIFA) suspended the country's top administrative organization All India Football Federation (AIFF) for undue influence by third parties.
- This suspension took away from the country the right to organize the FIFA U-17 Women's World Cup 2022 to be held from October 11-30.

## **FIFA:**

- FIFA or Fédération Internationale de Football Association is the highest governing body of football in the world.
- It is the international governing body of association football, futsal and beach soccer.
- FIFA is a non-profit organization.
- Founded in the year 1904, FIFA was launched to monitor international competition between the national federations of Belgium, Denmark, France, Germany, the Netherlands, Spain, Sweden and Switzerland. FIFA now consists of 211 member states.
- Its headquarter is in Zurich.

## **Purpose:**

- The primary objective of FIFA is to spread football internationally and to promote integrity and fair play.
- It is responsible for the organization and promotion of international tournaments, including the Men's World Cup that began in 1930 and the Women's World Cup that began in 1991.



- It is affiliated with the International Olympic Committee and is also a member of the Board of the International Football Federation, which is responsible for setting the rules of football.

### **The six regional associations affiliated with FIFA:**

- The Asian Football Confederation (AFC) is the governing body for Asia and Australia
- The Confederation of African Football (CAF) has 56 members,
- The Confederation of North Central American and Caribbean Association Football (CONCACAF) has 41 members.
- The Confederation of Sudamericana de Ftbol (CONMEBOL) is a 10-member South American federation,
- The Oceania Football Federation (OFC) has 14 members, including New Zealand,
- The Federation of European Football Federations (UEFA) is the governing body for Europe with 55 members.

### **All India Football Federation (AIFF):**

- The All India Football Federation (AIFF) is the organization that manages the game of football in India.
- It manages the operations of the India national football team and controls the I-League, India's premier domestic club competition, in addition to several other competitions and teams.
- AIFF was established in the year 1937, and gained FIFA affiliation in the year 1948 after India's independence in 1947.
- Presently it has its office in Dwarka, New Delhi. India was one of the founding members of the Asian Football Confederation in the year 1954.

### **All India Football Federation (AIFF) banned by FIFA:**

#### **Reluctance to step down by the President of AIFF'S:**

- President Praful Patel, who is also a member of the FIFA Council, has re-

fused to step down as head of football in the country.

- He cited the long-running pandemic with the court case regarding the AIFF constitution.

### **Third-Party Interference:**

- Despite growing concerns about the functioning of the AIFF, the Supreme Court of India intervened and removed Patel from his position.
- Apart from this, the Supreme Court also appointed a Committee of Administrators (COA) to run the AIFF.
- According to FIFA law, member associations should not be subject to legal and political interference in their respective countries.
- Third-party interference refers to a situation in which a FIFA member association fails to remain independent, is co-opted and no longer has control over the organisation.
- In the case of India, the Supreme Court had directed the COA to conduct the AIFF as a case of third party interference.

### **Meaning of suspension with reference to India:**

- This means that India will not participate in any international football match and this applies to all national level team and club teams of each age group in the country.
- The suspension affects international transfers as well as any developmental programs that AIFF officials had or were participating in.
- It means a complete ban on all football related activities outside India.

### **Possible measures by India to lift the sanctions:**

- According to FIFA, in order to lift the ban on the AIFF, it needs to follow the following instructions:
- The mandate of the COA will have to be repealed completely.
- The AIFF administration should once again be made independent in charge of its day-to-day operations.

- The rules and regulations of the AIFF need to be amended on the terms of the policies of FIFA and the Asian Football Confederation (AFC) and its members are elected on the current AIFF membership structures based only on state federations.

**Swadeep Kumar**

## **Rajiv Gandhi: The founding father of the Technological era in modern India**

### **Context :**

Today, on 20 Aug, our nation is paying humble tribute to Rajiv Gandhi, the founder of the technological revolution in India on his 78th birth anniversary

### **Introduction :**

Rajiv Gandhi, a legend Indian political leader and ex-prime minister of India led the foundation of technological development in India. He was the youngest prime minister of India and He was also awarded Bharat Ratna. During his time, the congress party had won 401 seats in the Loksabha election out of 508 which was the most significant victory with a huge margin (land slide victory) of any political party in the history of India. He served as the prime minister of India from 1984 to 1989

### **Achievement of Rajiv Gandhi**

- Rajiv Gandhi not only led the foundation of technological development in India but he did several drastic reforms in the political system of India. During his time, the voting age was reduced from 21 to 18 (61st constitutional amendment 1989). He also accepted the recommendations of the Balwant Raj Mehta committee and the way for the Panchayati Raj system was paved through 73rd and 74th amendments of the Indian constitution, however, it was passed during the period of Narsimha Rao .
- Through Panchayati Raj System, Rajeev Gandhi wanted to transfer the political power to maximum people up the village level.

- To protect the political party from further defection, the 10th schedule was inserted in the Indian constitution (52nd constitutional amendment 1985 ). In fact, through the laws against defection, he wanted to establish purity and ethical values in the Indian political system. However, in modern days defection has become a tradition. Horse trading is now common. through the central agencies, the Government successfully compel the leaders of the opposition political parties to defection
- Rajiv Gandhi is hailed as the 'Father of Information Technology and Telecom Revolution of India'. In fact, he must be said as the architect of digital India. To promote technology, he established the Centre for Development of Telematics (C-DOT) in August 1984. After the establishment of C- Dot, we see drastic progress in the telecom sector in India. This institute revolutionized the communication network in the towns and even villages of India. Many PCOs were opened to connect the people from the rest of the world
- The establishment of the MTNL (Mahanagar Telephone Nigam Limited) was another landmark during the period of Rajiv Gandhi. He appointed Sam Pitroda as an advisor to him. Sam Pitroda brought revolutionary changes in every field telecommunications, water, literacy, immunization, dairy, and oil seeds with the help of technology. India had been connected to the world now
- Rajiv knew the role of education in national development. So he brought National Policy on Education (NPE) in 1986. The object of the NPE was to modernize and expand higher education programs across the country. Many schools, colleges, and universities were opened residential schools called Jawahar Navodaya Vidyalayas, under the central government, were set up to bring out the best of rural talent. These schools provide free residential education to the children of the village

## Conclusion

Rajiv was a visionary leader of India. His achievement in the field of education, political reforms, and education are landmarks in the history of India

**Anshul**

# Geographical Indication (GI) tag to Mithila Makhana



- Recently the government has given Geographical Indication (GI) tag to Mithila Makhana.
- This move is expected to help the growers to get maximum price for their premium produce.

## Geographical Indication (GI) Tag

- GI is an indicator used to identify goods with special characteristics originating from a certain geographical area.
- The 'Geographical Indications of Goods' (Registration and Protection) Act, 1999 seeks to provide better protection and registration of Geographical Indications relating to goods in India.
- It is also part of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization.
- The decision was taken under Articles 1(2) and 10 of the Paris Convention and also stated that the protection of industrial property and geographical indications are elements of intellectual property.
- It is primarily agricultural, natural or manufactured products (handicrafts and industrial goods).

## Validity:

- Registration of Geographical Indication is valid for a period of 10 years. It can be renewed from time to time for an additional period of 10-10 years.



### **Importance of Geographical Indication:**

- Once granted Geographical Indication status, no other manufacturer can misuse its name to market similar products. It also facilitates the customers about the authenticity of that product.
- Geographical Indication of a product prevents unauthorized use of other registered Geographical Indications.
- Which promotes the export of Indian Geographical Indications by providing legal protection and also enables other WTO member countries to obtain legal protection.
- GI tag helps in promoting the export of the product.
- It also facilitates the customers about the authenticity of that product.

### **GI Registration:**

- There is a proper process of registration of GI products which includes filing of application, preliminary inquiry and examination, show cause notice, publication in Geographical Indication magazine, opposition to registration and registration.
- Any association of persons, producers, organization or authority established by or under law may apply.
- The applicant should represent the interests of the producers.

### **GI Tag Products:**

- Some of the famous items that have been given this tag include Basmati Rice, Darjeeling Tea, Chanderi Fabric, Mysore Silk, Kullu Shawl, Kangra Chai, Thanjavur Painting, Allahabad Surkha, Farrukhabad Print, Lucknow Zardozi, Kashmir Kesar and Kashmir Walnut Wood Carvings included.

### **Mithila Makhana**

- Mithila Makhana or Makhan (botanical name: *Euryale ferox* salisub) is a special variety of Makhana grown in the Mithila region of Bihar and Nepal.
- Makhana is one of the three iconic cultural identities of Mithila.
- Paan, Makhan and Mach (fish) are the three iconic cultural identities of Mithila.
- It is also very famous in the Kojagra festival of Maithil Brahmins celebrated for newly married couples.
- Makhana contains protein and fiber along with micronutrients like calcium, magnesium, iron and phosphorus.



### **Other products from Bihar getting GI tag:**

- GI tagging of products in Bihar has helped in brand building, creating local employment, creating a regional brand, creating spin-off effects in tourism, preserving traditional knowledge and traditional cultural expressions and conserving biodiversity.

### **Many products of Bihar have been given GI tag, such as:**

- Bhagalpuri Jardalu Mango
  - Shear Rice
  - Magahi leaves (paan)
  - Shahi Lychee
  - Silao Khaja (a delicious dish)
  - Madhubani painting
  - Applique Work
- 
- In June 2022, the Geographical Indication (GI) Registry in Chennai accepted the initial proposal to grant GI tags to 'Bavan Booti' sarees of Nalanda, 'Patharkatti stone crafts' from Gaya and 'Chinia' variety of bananas from Hajipur. .
  - It is also proposed to give GI tag to three sweets of Bihar- Khurma, Tilkut and Balushahi.



**Swadeep Kumar**

## **India's first hydrogen fuel cell (HFC) bus**



- Recently the Union Minister of State for Science and Technology launched

India's first Hydrogen Fuel Cell (HFC) bus.

- Bisphenol-A pilot plant was also inaugurated at CSIR-National Chemical Laboratory (NCL), an important feedstock for production of epoxy resins, polycarbonate and other engineering plastics.

### **Hydrogen Fuel Cell (HFC):**

- Hydrogen fuel cell is an electrochemical device that converts hydrogen into electrical energy.
- Fuel cells work in the same way as conventional batteries found in electric vehicles, but they do not discharge and do not need to be recharged with electricity.
- They continue to produce electricity as long as hydrogen is available.
- One of the most successful fuel cell uses the reaction of hydrogen with oxygen to form water.

### **Benefits of HFC powered vehicles:**

- They do not emit any tailpipe emissions (gaseous and particulate pollutants) and emit only water vapor and hot air.
- They are better than internal combustion engine vehicles.
- Hydrogen FCEVs have an advantage over battery-powered electric vehicles in terms of refuelling time; Hydrogen in a fuel cell vehicle can be refilled in minutes, almost as fast as an internal combustion engine can be refilled with fossil fuels.

### **Key features of innovation:**

- The HFC bus has been developed by the Council of Scientific and Industrial Research (CSIR) and KPIT, a multinational corporation of India.
- The launch of India's first indigenously developed HFC bus in true sense is in line with the National Hydrogen Energy Mission.
- The fuel cell uses hydrogen and air to generate electricity for the bus and the only waste generated from the bus is water. Thus it is probably the most eco-friendly mode of transport.
- The high efficiency of fuel cell vehicles ensures lower operating cost per kilometer than diesel powered vehicles and can revolutionize freight transport in India.

### **National Hydrogen Energy Mission:**

- A National Hydrogen Energy Mission (NHM) was announced under the Union Budget 2021-22, which lays out a roadmap for using hydrogen as an alternative energy source.
- Under this, the most abundant elements on earth (hydrogen) will be used for a clean alternative fuel option.
- This initiative has the potential to transform the transport sector.

### **Centre point:**

- Emphasis on hydrogen production from green energy resources.
- Linking India's growing renewable energy potential with the hydrogen economy.
- The use of hydrogen will not only help India achieve its emissions targets under the Paris Agreement, but it will also reduce India's dependence on fossil fuel imports.

### **Importance of Innovation:**

- This innovation is a part of the Prime Minister's hydrogen vision that will meet climate change goals and create new entrepreneurs and jobs by ensuring self-sustaining sources of affordable, accessible and clean energy.
- Green hydrogen is an excellent clean energy carrier that enables the decarbonisation of heavy pollutants emitted from the commercial transport sector.
- A diesel bus plying on long distance routes typically emits 100 tonnes of CO<sub>2</sub> annually and there are over one million such buses in India. About 12-14% of CO<sub>2</sub> emissions come from heavy commercial vehicles powered by diesel, which are decentralized emissions and are therefore a difficult task to capture.
- Fuel cell vehicles emit zero greenhouse gases. Furthermore, their operating cost per kilometer is lower than that of diesel vehicles.
- Through such innovations, India can strive to become a net exporter of clean hydrogen energy from a net importer of fossil energy.
- It can provide India with a global leadership in hydrogen energy by becoming a major green hydrogen producer and supplier of equipment for green hydrogen.

## Green Hydrogen:

- It is produced by splitting H<sub>2</sub>O into hydrogen and oxygen using an electrolyzer powered by renewable energy sources such as wind and solar.
- The fuel is considered a game-changer for India's energy security, which imports 85% of its oil and 53% of its gas requirements.
- In February 2022, the Ministry of Power has notified the Green Hydrogen/ Green Ammonia Policy for the production of Green Hydrogen or Green Ammonia using renewable sources of energy.

## Importance:

- Green hydrogen energy is critical for India to meet its Nationally Determined Contribution (INDC) targets and ensure regional and national energy security, access and availability.
- Green hydrogen can serve as an energy storage option, which will be needed to fill the gap (of renewable energy) in the future.
- In terms of mobility, green hydrogen can be used in railways, large ships, buses or trucks etc. for long distance travel for urban freight or passengers within cities and states.
- Hydrogen has major renewable potential to support infrastructure.

YOJNA IAS

Swadeep Kumar

## Ranganathittu Bird Sanctuary, as Ranganathittu Bird sanctuary reopens

**In News: Ranganathittu Bird Sanctuary, as Ranganathittu Bird sanctuary reopens.**



**Prelims:** General issues on Environmental Ecology, Biodiversity and Climate Change – that do not require subject specialization.

**GS Paper 3:** Conservation, Environmental pollution and degradation, Environmental Impact Assessment.

**About:**

- Ranganathittu Bird sanctuary is a combination of several mini-islets in the Cauvery near Srirangapatna, Karnataka.
- It got the status of bird sanctuary in 1940.
- The islets of Ranganathittu were formed during the construction of a barrier across the Cauvery between 1645 and 1648, by the then Mysore ruler Kantirava Narasaraja Wadiyar.
- The bird sanctuary is home to many native and migratory birds, and is considered a safe place for river otters, marsh crocodiles (muggers), and several species of fish.
- Recently, Ranganathittu Bird Sanctuary was declared as Ramsar site becoming the first wetland of Karnataka to get designated as Ramsar site.
- “Ranganathittu Bird Sanctuary is also known as ‘Pakshi Kashi’ of Karnataka as a lot of migratory birds from Africa and Siberia go there. The sanctuary has rare species of birds, fish among others.

**Importance of Designating Ranganathittu Bird Sanctuary as Ramsar site:**

- Conservation of the ecologically fragile region: By designating the site as Ramsar site it will create more awareness among visitors and local people to conserve this region.
- It will promote wise use of wetlands: Now, the industry will think twice while discharging their effluents, and visitors will become cautious while littering around.
- Boost eco-tourism by supporting local livelihood :Since ,the site remains closed for a long time leading to loss of revenue. Now, the site is on a world map drawing visitors from all over the world. Hence, will boost eco-tourism.
- Help in mitigating changes in climate: Since the sanctuary has rare species



of birds, fish among others. The recognition will help in conservation of the wetland.

### **What are Ramsar Sites/Convention?**

- Ramsar Convention, which came into existence in 1971, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

Number of Ramsar Sites in India: India has total 64 Ramsar sites covering an area of 12,50,361 ha in the country. Recently, India adds 10 more wetlands such as Koonthankulam Bird Sanctuary (Tamil Nadu), Satkosia Gorge (Odisha), Nanda Lake (Goa), Gulf of Mannar Marine Biosphere Reserve (Tamil Nadu), Ranganathittu BS (Karnataka), Vembannur Wetland Complex (Tamil Nadu), Vellode Bird Sanctuary (Tamil Nadu), Sirpur wetland (Madhya Pradesh), Vedanthangal Bird Sanctuary (Tamil Nadu), Udhayamarthandapuram Bird Sanctuary (Tamil Nadu) as Ramsar sites.

### **What are the criterias laid down by Ramsar Convention to designate a wetland as Ramsar sites?**

There are nine criterias laid down by the convention which need to be met to get Ramsar tag. A wetland should be considered internationally important if:

- Criterion 1: it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
- Criterion 2: it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
- Criterion 3: it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.
- Criterion 4: it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
- Criterion 5: it regularly supports 20,000 or more waterbirds.
- Criterion 6: it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
- Criterion 7: it supports a significant proportion of indigenous fish

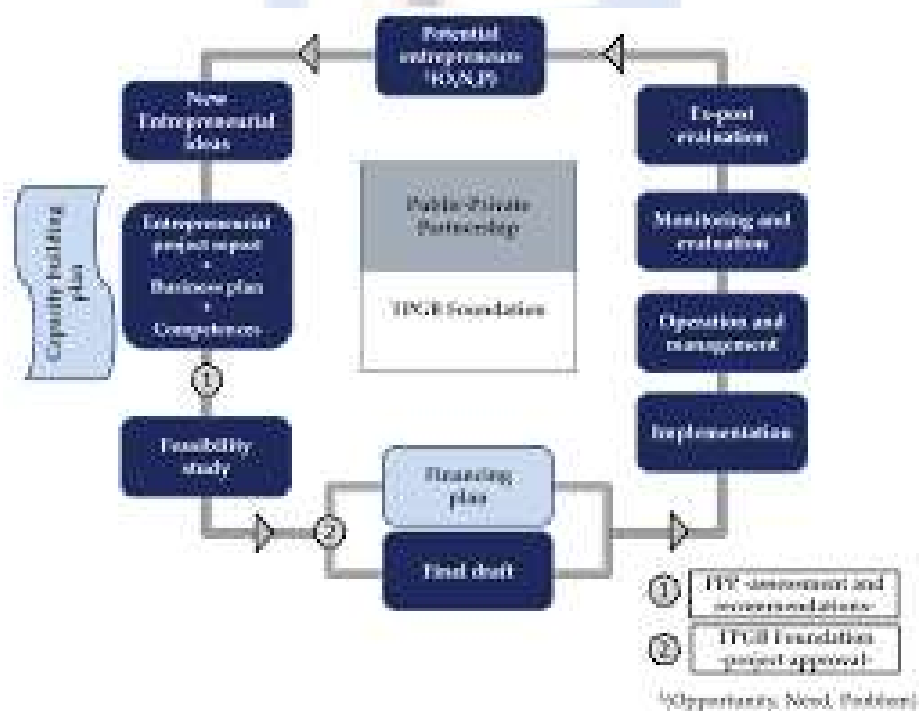


subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.

- Criterion 8: it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend
- Criterion 9: it regularly supports 1 percent of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

Sharad

## Phase II of the Rural Entrepreneur Project



- Recently National Skill Development Corporation (NSDC) launched the second phase of Rural Entrepreneur Project in partnership with Sewa Bharti and Yuva Vikas Society.
- The objective of this initiative is to provide functional skills to the youth of India to enable them to multi-skill and earn their livelihood.

### **National Skill Development Corporation:**

- National Skill Development Corporation is a not-for-profit public limited company. It was incorporated on 31st July, 2008 under Section 25 of the Companies Act, 1956 (in line with Section 8 of the Companies Act, 2013).
- NSDC was set up by the Ministry of Finance as a Public Private Partnership (PPP) model.
- The Government of India, through the Ministry of Skill Development and Entrepreneurship (MSDE), holds 49% of NSDC, while the private sector owns the remaining 51%.
- It acts as a catalyst in skill development by providing funding to enterprises, companies and organizations providing skill training.

### **Rural Entrepreneur Project:**

- It is a unique multi-skill project, funded by NSDC, which aims to train 450 tribal students in Madhya Pradesh and Jharkhand.
- This project is being implemented in six states- Maharashtra, Rajasthan, Chhattisgarh, Madhya Pradesh, Jharkhand and Gujarat.

### **Importance:**

- There is a dire need to increase ownership at the tribal level to create awareness about such schemes and initiatives.
- Tribal youth have so much power and potential that all we have to do is to utilize their talents in the right places.
- This initiative will provide economic empowerment to our tribal population.

### **Purpose:**

- Growth in rural/local economy
- Increasing employment opportunities
- Reducing migration pressures due to lack of local opportunities
- Conservation of natural resources

## **Implementation of Rural Entrepreneur Project:**

### **First round:**

- Participants from rural and tribal areas of Maharashtra, Rajasthan, Chhattisgarh, Madhya Pradesh and Gujarat have been included in the first phase of training.
- The participants were provided with transportation, food and accommodation so that they would not miss out on learning opportunities due to paucity of resources.

### **Second Step:**

- The second phase of the pilot project started in Ranchi is being implemented by Yuva Vikas Society through Seva Bharti Kendra.
- National Skill Development Corporation under the aegis of Ministry of Skill Development and Entrepreneurship has assisted in setting up of laboratories and classrooms through Sector Skill Councils (SSCS) at Sewa Bharti Kendra Skill Development Centre.

### **The training under the project will be used in the following job roles that are relevant to the local economy.**

- Electrician and Solar PV Installation Technician.
- Plumbing and Masonry.
- Repair and maintenance of two wheelers.
- IT/ITES with e-Governance.
- Agricultural mechanization.

### **Initiatives taken by the government for skill development:**

- Pradhan Mantri Kaushal Vikas Yojana (PMKVY)
- Employment fair.
- Pradhan Mantri Kaushal Kendra (PMKK).
- Capacity building plan.

- School Initiatives and Higher Education.
- India International Skill Centers (IISCs).
- Pre-Departure Orientation Training (PDOT).

**Swadeep Kumar**

## **Tomato flu: Kerala**



- Recently, some parts of Kerala have reported cases of children below the age of five getting infected with tomato flu.

### **Tomato Flu:**

- This infection is named 'tomato flu' because red blisters appear on the patient's body which gradually increase to the size of a normal tomato and the person suffering from it suffers a lot.
- 'Tomato flu' is caused by Coxsackievirus A16.
- It belongs to the Enterovirus family.
- Enteroviruses are an old and important group of RNA viruses.
- Humans are the only host for enteroviruses (NPEVs).
- This infectious disease is caused by an intestinal virus that is rare in adults because they usually have an adequate immune system to defend against the virus.

### **Infection:**

- Tomato flu is highly contagious and children are at increased risk of exposure to tomato flu because viral infections are common in this age group and are more likely to spread through close contact.
- If the outbreak of tomato flu in children is not controlled, it can spread to adults and transmission can lead to serious consequences.

### **Symptoms:**

- The primary symptoms seen in children with tomato flu are similar to those of chikungunya, including high fever, rash, and severe joint pain.
- Like other viral infections, fatigue, nausea, vomiting, diarrhea, dehydration, joint swelling, body aches and general influenza-like symptoms have been observed in dengue.

### **Remedy:**

- This flu is self-limiting and there is no specific medicine for it.
- The treatment of tomato flu is similar to the treatment of chikungunya, dengue, hand, and foot and mouth disease.
- Patients are advised to self-isolate, rest, drink fluids and take a warm water sponge to relieve irritation and rash.

**Swadeep Kumar**

## **Need for Police Reforms: IPC 1861**



### **Indian Penal Code 1861:**

- The main objective of the Indian Penal Code (IPC), 1861 was to 'use the police as a weapon of repression' and to strengthen the British hold on India.
- Prevention and investigation of crime was never the priority of the British. Most of the British police constables were illiterate and were not even paid a 'living salary'.
- The reforms suggested by the Fraser Commission (1902-03) were not accepted.

**However, the Indian Penal Code has undergone several changes since independence:**

#### **With reference to women:**

##### **Prohibition of social evil of dowry:**

- The Dowry Prohibition Act was passed in 1961.
- Section 498A (cruelty by husband and his relatives) and section 304B (dowry death) were included in the 'Evidence Act' by some amendments.
- Custodial harassment and sexual harassment have been considered as a violation of fundamental rights.

#### **With reference to children:**

- The definition of rape has been broadened and offenses related to sexual assault have been made more stringent.
- Protection of Children from Sexual Offences Act'2012 i.e. 'Protection of Children from Sexual Offences Act, 2012 – POCSO', and Juvenile Justice (Care and Protection of Children) Act, 2015 have been enacted.

#### **In terms of business:**

##### **Ease of Doing Business:**

- Electronic documents and signatures have been given legal recognition under the Information Technology Act 2000 to facilitate online transac-



tions and to investigate cybercrime.

### **Against Discrimination:**

- The 'Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act', was enacted in the year 1989.
- Some provisions of IPC section 377 have been removed, giving relief to the LGBTQ+ community.

### **Against Terrorism:**

- The National Investigation Agency (NIA) was set up in 2008 (after the deadly 26/11 terrorist attacks in Mumbai) to investigate and prosecute crimes affecting national security.

### **For Individuals:**

- The 'right to privacy' has been recognized as a fundamental right.
- The 'Sedition' (Section 124A) Act, is currently under the scrutiny of the Supreme Court.

### **Institutional Change:**

#### **Moving to the Inquisitorial System:**

- By making judicial inquiry into custodial death and custodial rape mandatory, an attempt has been made to merge some elements of the interrogation system into the prevailing hostile system.
- Kolkata, Mumbai, Hyderabad, Chennai, Lucknow and Noida 'Police Commissionerate System' has been implemented.

#### **Reform instead of retaliation:**

- The Probation of Offenders Act, 1958, has been enacted with the aim of reforming the offenders rather than punishing them.
- The power to arrest has been reduced, the use of handcuffs has been banned.

- The presence of a lawyer is allowed during the interrogation.
- CCTV cameras have been installed in police stations.
- 'Human rights bodies' have been allowed to keep a constant watch.

### **Limitations of Reforms:**

- The police are still accused of being 'brute force'.
- The 'lack of faith' doesn't seem to end.
- Guidelines on police reforms were issued by the Supreme Court in Prakash Singh v Union of India (2006) but their implementation has been poor.
- Despite 'Police' being a state subject, so far no state government has given due attention to police reforms.
- The directive to separate investigation from law and order has not been implemented in the true sense by the states and union territories.
- Any State or Union Territory has declared 'Soli J. The Model Police Act prepared by 'Sorabji' has not been adopted.

### **Comprehensive Power of District Magistrate:**

- In Uttar Pradesh, 'District Superintendent of Police' is not able to transfer his station in-charge without the permission of the District Magistrate.
- Despite the directions of the Supreme Court, the performance assessment report of a Superintendent of Police is still written by the District Magistrate.

### **Solution:**

- Additional funding and training.
- Improving soft skills and ensuring fair investigation.
- There is a need to prevent unwanted and mechanical arrests.
- To reduce the burden on prisons, more offenses can be made bailable and more offenses can be brought under the purview of 'crime mitigation'.

- Use of technology and forensic techniques should be encouraged to enhance the quality of evidence.
- There is a need to set up a special wing to deal with new types of crime.

### **Conclusion:**

- The police should be accountable to its constitutional goal of establishing the rule of law.

**Swadeep Kumar**

## **Reinvigorating the Chabahar port: Union Minister of Ports, Shipping & Waterways Sarbananda Sonowal visited Chabhar port on August 20.**

**Prelims:** Current events of national and international importance.

**Mains:** India and its Neighborhood- Relations; Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests; Effect of Policies and Politics of Developed and Developing Countries on India's interests.

### **Chabhar port:**

- Chabahar port is located in Iran's southeastern Sistan and Baluchestan province.
- It is located on the **Makran coast on the Persian Gulf** occupied a unique location as ships, tankers etc. avoided the "chicken neck" on the Gulf of Hormuz.
- It is the only deep-sea port located on the edge of the Indian Ocean in Iran with direct ocean access.



### Timelines of Chabhar plan:

- First agreement for Chabhar was signed by then **Prime Minister Atal Bihari Vajpayee in 2003** with three fold objectives.
- **Zaranj -Delaram Highway** constructed during Manmohan Singh's government in **2009** connecting the trade route from the border of Iran to Herat and Kabul in Afghanistan's South.
- **PM Modi's visit in 2016** to Tehran led to signing of agreement between India and Afghanistan to develop Chabhar port, as well as the trilateral agreement for trade through Chabhar.
- Recently on the occasion of "**Chabhar Day**" function, India clarified it's vision of making the **Shahid Beheshti port** a "a transit hub" and link it to the **International North South Trade Corridor (INSTC)**, that also connects to Russia and Europe.

### Main Objectives of Chabhar plan:

- Build India's first offshore port.
- Project Indian infrastructure prowess in the Gulf.
- Circumvent trade through hostile neighbor Pakistan by building long term, sustainable sea trade route.
- Find an alternative land route to Afghanistan after the defeat of the Taliban in 2001.
- Provide Central Asia with an alternate route to the China-Pakistan Economic Corridor (CPEC).

### Significance of Chabhar port/plan:

- It will become **Gateway for Indian trade** with Europe, Russia and CIS [Commonwealth of Independent States] countries.
- Port has the potential to develop into one of the most important commercial hubs in the region due to its geographic proximity to countries such as Afghanistan, Pakistan, and India as well as its status as a key transit center on the burgeoning International North-South Transport Corridor.
- Chabahar has simple trade procedures with other countries, as it is one of the few places in Iran that is exempt from U.S. sanctions.
- It will help in **India's "Look West" policy**, where India wants to improve its engagement with west Asian countries as well as with Afghanistan, Iran and Central Asian Republics (CARs),
- Chabahar opens directly into the Indian Ocean, and is a deep water port and it is a mere 1000 km from Kandla on the Gujarat coast. So, it will help Indian ships to bypass Dubai and reach Chabahar directly.
- India and Iran has shared objective of stability and security of Afghanistan as well as Iran is important to India for its energy requirements. So, Chabahar plan will help Indian firms in exploration and development of new oil fields and improve strategic partnership between both countries.
- It will help India to address security concerns vis a vis China and Pakistan as China is building Gwadar port in Pakistan.

### Road Blocks in India's Chabhar plan:

- **Geopolitical road-block:** Specially Iran's relationship with western countries, particularly United States.
  - Increased in western sanctions against Iran put the Chabahar project on the back-burner.
  - Trump administration put paid to India's plans by walked out of the JCPOA in 2018 hampering India's plan by slapping new sanctions on dealing with Iran. Hence, Modi government **"zeroing out"** all its oil imports from Iran, causing a strain in ties.

- Even special **“carve-out”** on sanctions for Chabahar, by U.S. was not sufficient as it has been difficult to source equipment for the port construction from infrastructure companies that continue to fear secondary sanctions, as well as to engage shipping and insurance companies for trade through Chabahar.
- Hostile Taliban takeover of Afghanistan in August 2021 put an end to the humanitarian aid of wheat and pulses that, was being sent to Kabul via Chabahar. When India restarted wheat aid to Afghanistan this year, it negotiated with Pakistan to use the land route instead.

**Conclusion and Way forward:** Since, there are so many competing interests over Chabahar India require sustained and nuanced diplomacy to sustain the momentum.

**Sharad**

## 5G

**Prelims:** Current events of national and international importance; General Science.

**Mains:** Science and Technology- Developments and their Applications and Effects in Everyday Life; Indigenization of Technology and Developing New Technology; Awareness in the fields of IT, Space, Computers, Robotics.

### What is 5G?

- 5G is the 5th generation mobile network. It is a new global wireless standard after 1G, 2G, 3G, and 4G networks.
- 5G enables a new kind of network that is designed to connect virtually everyone and everything together including machines, objects, and devices.
- 5G has **higher performance and improved efficiency** as it will deliver higher multi-Gbps peak data speeds, ultra low latency, more reliability, massive network capacity, increased availability, and a more uniform user experience to more users. empower new user experiences and connect new industries.
- 5G is designed for **forward compatibility** i.e. the ability to flexibly support



future services that are unknown today.



### What are the previous generations of mobile networks?

- **First generation – 1G, 1980s:** 1G delivered analog voices
- **Second generation – 2G, Early 1990s:** 2G introduced digital voice (e.g. CDMA- Code Division Multiple Access).
- **Third generation – 3G, Early 2000s:** 3G brought mobile data (e.g. CDMA2000).
- **Fourth generation – 4G LTE, 2010s:** 4G LTE ushered in the era of mobile broadband.

### Who invented /owns 5G?

- No one company or person owns 5G, but there are several companies within the mobile ecosystem that are contributing to bringing 5G to life.

### What underlying technologies make up 5G?

- 5G is based on **OFDM (Orthogonal frequency-division multiplexing)**, a method of modulating a digital signal across several different channels to reduce interference.
- 5G uses the 5G NR air interface alongside OFDM principles.
- 5G uses wider band width technologies such as sub-6 GHz and mm Wave.

## How is 5G better than 4G?

There are several reasons that 5G will be better than 4G:

- **5G is faster than 4G:** 5G can be significantly faster than 4G, delivering up to 20 Gigabits-per-second (Gbps) peak data rates and 100+ Megabits-per-second (Mbps) average data rates.
- **5G has more capacity than 4G:** 5G is designed to support a 100x increase in traffic capacity and network efficiency.
- **5G has significantly lower latency than 4G:** 5G has significantly lower latency to deliver more instantaneous, real-time access: a 10x decrease in end-to-end latency down to 1ms.
- **5G is a unified platform that is more capable than 4G:** While 4G LTE focused on delivering much faster mobile broadband services than 3G, 5G is designed to be a unified, more capable platform that not only elevates mobile broadband experiences, but also supports new services such as mission-critical communications and the massive IoT. 5G can also natively support all spectrum types (licensed, shared, unlicensed) and bands (low, mid, high), a wide range of deployment models (from traditional macro-cells to hotspots), and new ways to interconnect (such as device-to-device and multi-hop mesh).
- **5G uses spectrum better than 4G:** 5G is also designed to get the most out of every bit of spectrum across a wide array of available spectrum regulatory paradigms and bands—from low bands below 1 GHz, to mid bands from 1 GHz to 6 GHz, to high bands known as millimeter wave (mm Wave)

## Where is 5G being used?

5G is used across three main types of connected services, including enhanced mobile broadband, mission-critical communications, and the massive IoT.

- **Enhanced mobile broadband:** 5G mobile technology can usher in new immersive experiences such as VR and AR with faster, more uniform data rates, lower latency, and lower cost-per-bit.

- **Mission-critical communications:** 5G can enable new services that can transform industries with ultra-reliable, available, low-latency links like remote control of critical infrastructure, vehicles, and medical procedures.
- **Massive Internet of Things (IoT):** 5G is meant to seamlessly connect a massive number of embedded sensors in virtually everything through the ability to scale down in data rates, power, and mobility—providing extremely lean and low-cost connectivity solutions.

**Sharad**

## **Rohingya row shows why we need a national refugee law**



- Refugee arrivals in India began with the partition of the country in 1947 and by the beginning of 2010, the number of refugees in Indian Territory had reached about 450,000.
- India is not a signatory to the 1951 United Nations Refugee Convention or its 1967 Protocol. Since there is no refugee law in India, there is no uniformity in the treatment of refugees in the country.
- However, the refugee question is inextricably linked with the larger question of human rights and humanitarian law, as well as other areas of international law, such as state accountability and peacekeeping.

### **Existing Legislative Framework in India for the Management of Refugees**

- India deals with all foreigners (whether illegal immigrants, refugee/asy-

lum seekers or people residing in the country after the visa permit has expired) in accordance with **the following laws:**

**Foreigners Act, 1946:**

- Under its section 3, the central government has the power to detect, detain and deport illegal foreign nationals.

**The Passport (Entry into India) Act, 1920 [Passport (Entry into India) Act, 1920]:**

- Under its section 5, the competent authority may forcibly eject an illegal foreigner under Article 258(1) of the Constitution of India.

**Foreigners Registration Act, 1939 (Registration of Foreigners Act of 1939):**

- There is a mandatory requirement under which all foreign nationals coming to India (except Overseas Indian Nationals) on long term visa (more than 180 days) have to register themselves with a registering officer within 14 days of their arrival in India.

**Citizenship Act, 1955 (Citizenship Act, 1955):**

- In this, provisions have been made regarding renunciation of citizenship, termination of citizenship and deprivation of citizenship.
- In addition, the Citizenship Amendment Act, 2019 seeks to provide citizenship to Hindu, Christian, Jain, Parsi, Sikh and Buddhist migrants from Bangladesh, Pakistan and Afghanistan.
- India has established a Standard Operating Procedure (SOP) to be followed by all relevant agencies while dealing with foreign nationals claiming to be refugees.
- The Constitution of India also respects the life, liberty and dignity of human beings.
- In the case of National Human Rights Commission v State of Arunachal Pradesh (1996), the Supreme Court made it clear that all fundamental rights are available to Indian citizens, however, the right to equality and right to life are also available to foreign citizens.

### **Status of refugees in India**

- Since its independence, India has accepted various groups of refugees from neighboring countries, including:
- Refugees coming from Pakistan due to Partition in 1947.
- Tibetan refugee who came to India in the year 1959.
- Chakmas and Hajongs from East Pakistan (present-day Bangladesh) in the early 1960s.
- Other Bangladeshi refugees who came in 1965 and 1971.
- Tamil refugees from Sri Lanka in the 1980s.
- Rohingya refugees from Myanmar recently.

### **Difference between refugees and migrants**

- Refugees are people forced to live outside their country of origin who, as a result of persecution, armed conflict, violence or serious public disorder in their country of origin, face serious threats to life, physical integrity or liberty and are in danger of international security.
- Migrants are people who leave their country of origin for work or study or to join their families living abroad.
- There are well defined and specific grounds that have to be confirmed for a person to be marked as a 'Refugee'.
- There is no internationally accepted legal definition of migrant.

### **Why has India not signed the Refugee Convention, 1951?**

#### **Disagreements on the definition of refugee:**

- The Refugee Convention, 1951 defines refugees as people who are deprived of their civil and political rights, but not economic rights.
- If the violation of economic rights is also included in the definition of refugee, it will obviously create a huge burden on the developed countries.

### **Centrality of Europe:**

- India recognizes that the Refugee Convention, 1951 is mainly Eurocentric and does not care for South Asian countries. At the same time, apprehensions have also been expressed by India that it will affect the security and domestic laws of the country.

### **Challenges facing refugees in India**

#### **Fear and Insecurity:**

- Refugees are not given much importance in the society. They are not treated well by the local residents due to which they develop a sense of fear and insecurity.
- They are often exploited physically and emotionally by the local residents on the grounds of not being citizens of the same land.

#### **Deprived of basic amenities:**

- They also have to struggle to get the basic necessities of life like food, shelter and employment.
- They are forced to work for minimum wages without any high social status or privileges.

#### **Lack of well-defined framework for their protection:**

- India's ad-hoc administrative policy on refugees has created an atmosphere of confusion.
- Lack of awareness and misleading information creates a sense of insecurity and isolation among refugee communities.

#### **Long process of identification:**

- The United Nations High Commissioner for Refugees (UNHCR) issues a refugee card through the refugee status determination process, but this process is time-consuming and can take up to 20 months for identification and evaluation.
- If a refugee is arrested by the police within that period, they are subject



to detention and deportation without being granted any access to the UNHCR.

### **Misidentification as immigrants:**

- In the last few decades many people from neighboring countries have immigrated to India illegally. They have come not because of the oppression of the state, but to take advantage of better economic opportunities.
- Similar examples are found elsewhere in the world as well. As such 98% of the total migrants from Mexico have moved to the United States where they number more than 9 million (registered and unregistered).
- It is true that most of the discussions in India are about illegal immigrants and not refugees, but these two categories tend to be related to each other.

### **Conclusion:**

#### **Fair and effective registration process:**

- Processes determining the status of refugees should be made more equitable and effective while enhancing or maintaining standards in registration and identification.

#### **Infrastructure improvements:**

- The fulfillment of essential services and needs should be kept in mind.
- These include improving access to education, promoting programs for people with special needs, and maintaining health facilities.

#### **Spreading awareness among local residents:**

- Community participation is essential for providing shelter to refugees and improving their self-reliance capacity by providing them temporary livelihood, for which people should be made aware.

#### **Ensuring the safety of women and children:**

- In accordance with the Fundamental Duty enshrined in our Constitution, refugee women and children should be protected from violence and per-

secution by the authorities and local people.

- Article 51A (e) requires every citizen to abjure practices degrading to the dignity of women.

### **Emotional Support:**

- A person becomes a refugee because of circumstances that are beyond that person's control.
- He is compelled to leave his country, his land due to the fear of persecution in the face of human rights violations, socio-economic and political insecurity. In such a scenario, we should aim to provide inclusivity and emotional support apart from financial support.

**Swadeep Kumar**

## **Swachh Bharat Mission Gramin (SBM-G)**



- Under the Swachh Bharat Mission Gramin (SBM-G), more than 1 lakh villages have declared themselves Open Defecation Free (ODF Plus).
- These villages are maintaining their ODF status and have mechanisms in place to manage solid and/or liquid waste. They will continue their cleanliness journey as they work towards making their villages clean, green and healthy.

### **Open Defecation Free Status:**

- **ODF:** An area can be notified or declared as ODF if at any time of the day, not a single person defecates in the open.
- **ODF+:** A city can be declared ODF+ if no person is found defecating and/or urinating in the open on any given day and all community and public toilets

are functional and well maintained.

- **ODF++:** A city can be declared ODF++ if it is already in ODF+ status and the faecal sludge/septage and drains are safely managed and treated and any type of the untreated sludge/septage and drains do not drain into water bodies or open areas drains.

### **Swachh Bharat Mission Gramin (SBM-G)**

- It was launched in the year 2014 by the Ministry of Jal Shakti to accelerate efforts to achieve universal sanitation coverage and focus on sanitation.
- The mission was implemented as a nationwide campaign / mass movement aimed at eliminating open defecation in rural areas.

### **Swachh Bharat Mission (G) Phase-I:**

- Rural sanitation coverage in India at the time of launch of Swachh Bharat Mission (Gramin) on 2nd October, 2014 was recorded at 38.7 percent.
- Under this mission, more than 10 crore individual toilets were constructed as a result of which rural areas of all the states declared themselves as ODF on 2nd October, 2019.

### **SBM (G) Phase-II:**

- It emphasizes on sustainability of achievements made under Phase I and providing adequate facilities for Solid/Liquid and Plastic Waste Management (SLWM) in rural India.
- Implementation: Swachh Bharat Mission (Gramin) Phase-II will be implemented as a single mission for the period 2020-21 to 2024-25 with a total outlay of Rs.1,40,881 crore.

### **The SLWM component of ODF Plus will be monitored based on the following four indicators-**

- Plastic Waste Management
- Biodegradable solid waste management (which includes animal waste management)

- Gray Water Management
- Faecal Sludge Management

### **Top performing states:**

- Top five performing states are Telangana, Tamil Nadu, Odisha, Uttar Pradesh and Himachal Pradesh with maximum number of villages declared as ODF plus.

### **Importance of Swachh Bharat Mission:**

- Under solid and liquid waste management, infrastructure such as compost pits, adsorption pits, waste stabilization ponds, treatment plants, etc. will also be created. This phase of the Swachh Bharat Mission (Gramin) will continue to generate employment and provide impetus to the rural economy through the construction of household toilets and community toilets.
- It will help rural India to effectively deal with the challenge of solid and liquid waste management and will help in substantial improvement in the health of the villagers in the country.

### **Other schemes as part of SBM:**

#### **GOBAR-DHAN (Galvanizing Organic Bio-Agro Resources Dhan- GOBAR-DHAN) Scheme:**

- It was launched by the Ministry of Jal Shakti in the year 2018.
- The objective of this scheme is to keep villages clean, increase the income of rural households and generate energy from waste generated by cattle.

#### **Individual Household Toilet (IHHL):**

- Under SBM, people get about 15 thousand rupees for the construction of toilets.

#### **Clean School Campaign:**

- The Ministry of Education launched the Swachh Vidyalaya program under the Swachh Bharat Mission with the objective of providing separate

toilets for boys and girls in all government schools within a year.

### **Swachh Bharat Mission-Urban (SBM-U)**

- It was launched by the Ministry of Housing and Urban Affairs on October 2, 2014.

#### **First stage:**

- The program includes eradication of open defecation, conversion of dirty latrines to flush latrines, elimination of manual scavenging, municipal solid waste management and behavioral change in people with respect to healthy sanitation practices.
- Under the program community toilets will be built in residential areas where it is difficult to build individual household toilets.

#### **Achievements:**

- 4,324 urban local bodies have been declared open defecation free, which has been made possible through the construction of over 66 lakh individual household toilets and over 6 lakh community/public toilets, far exceeding the mission target.
- Digital enablement such as Swachhata App, launched by MoHUA in the year 2016 and Digital Grievance Redressal Platform have reimaged the way of managing citizen grievance redressal.

#### **Phase II:**

- SBM-U 2.0 announced in the Union Budget 2021-22 is a continuous implementation of the first phase of SBM-U. Under which the Government of India is making efforts to securely prevent sewage, sludge and septage from toilets, transport them and dispose them properly.
- It has been implemented for a period of five years from 2021 to 2026 with an outlay of Rs 1.41 lakh crore.

#### **Purpose:**

- It focuses on segregation at the source of waste, reduction of single-use



plastics and air pollution, effectively managing waste from construction and demolition activities and bioremediation of all old dump sites.

- Under this mission, all the waste water is being treated properly before releasing it into the water bodies and the government is trying to prioritize maximum reuse.

**Swadeep Kumar**

**Recently, A spectacular 'Mandala' art installation, bigger than the size of a football field, was unveiled at a public park in Liverpool in the United Kingdom.**



#### **About Mandala:**

- Literal meaning of Mandala is the “**circle**” or the “**centre**” in Sanskrit.
- Mandala is a symbolic design in **Hindu and Buddhist Tantricism** for performance of sacred rites and also as an instrument of meditation.
- Mandala patterns are centuries old motifs, **used to depict the cosmos**.
- Mandala pattern is an **interconnected geometric configuration** that usually incorporates the circular shape in some form. It can also be in interconnected square form.
- Buddhist missionaries travelling along the Silk Road have taken it to regions outside India. Hence, it continues to appear in **Buddhist Thangka paintings**.
- By the sixth century, mandalas were recorded in China, Korea, Japan, In-



donesia and Tibet.

- Separately, native American peoples are believed to have used the mandala as representation of a deity or the cosmos, and as a spiritual form.
- Besides Mandala's usage in modern Indian art, it is used in therapy.

### How did the Mandala art form originate?

- **Mandala imagery first appeared in the Vedas (c. 1500-500 BC):** All the hymns of Rigveda are classified in ten classes which are called Mandalas. Mandala indicates cyclical property. There was a strong Vedic tradition to recite Vedic hymns in a cyclical manner.
- **Making of Mandala:** A Mandala is usually made with careful placement of coloured sand, and accordingly is known in **Tibetan as dul-tson-kyil-khor**, or Mandala of coloured powders.

### What does Mandala represent?

- Mandala is a representation of the universe, a consecrated area that serves as a receptacle for the gods and as a collection point for universal forces. Men (the microcosm), by mentally 'entering' the Mandala and 'proceeding' towards its centre, is by analogy guided through the cosmic processes of disintegration and reintegration.
- It is believed that by entering the mandala and moving towards its centre, one experiences a cosmic process of transforming the universe and that of moving from emotions of suffering to the feeling of joy.
- **In Hindu philosophical systems**, a mandala or yantra is usually in the shape of a square with a circle at its centre.
- **A traditional Buddhist mandala** is a circular painting that is meant to help its creator discover their true self.

### What are the meanings of various elements incorporated within the mandala?

- Eight spokes of the wheel (the **Dharmachakra**) represent the eight-fold path of Buddhism that brings liberation from the cycle of birth and death.

- The **lotus flower** depicts balance.
- Sun represents the universe.
- **Up facing triangles** represent action and energy, and **down facing triangles** represent creativity and knowledge.

**Sharad**

## Food Security

**Mains GS Paper 3:** Issues of Buffer Stocks and Food Security.

### What is Food security?

**Food Security:** Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.



### Initiatives towards ensuring Food Security

- **Article 47 of the Constitution of India** states that it is the duty of the State to raise the level of nutrition and the standard of living and to improve public health.
- **Supreme Court in its judgment** noted that “Right to Food is a fundamental right available under **Article 21 of the Constitution**”.

## Indian Government's Initiatives for Food security

- **Public Distribution System (PDS):** PDS facilitates the supply of food grains and distribution of essential commodities to a large number of poor people through a network of Fair Price Shops at a subsidized price on a recurring basis.
- **Antyodaya Anna Yojana (AAY):** ANTYODAYA ANNA YOJANA (AAY) was a step in the direction of making TPDS aim at reducing hunger among the poorest segments of the BPL population
- **Mid-Day Meal Scheme:** Mid-day meal (MDM) is a wholesome freshly-cooked lunch served to children in government and government-aided schools in India with aim to avoid classroom hunger, increase school enrolment, increase school attendance, improve socialisation among castes, address malnutrition, empower women through employment.
- **Integrated Child Development Services (ICDS):** Integrated Child Development Services (ICDS) Scheme is a unique program focused on early childhood care and development aimed to improve the nutritional and health status of children in the age-group 0-6 years.
- **Annapurna Scheme:** Annapurna Scheme aims at providing food security to meet the requirement of those Senior Citizens who though eligible have remained uncovered under the National Old Age Pension Scheme (NOAPS).
- **National Old Age Pension Scheme (NOAPS):** National Old Age Pension Scheme (NOAPS) is a scheme aimed to provide financial aid and social protection to older citizens in India who are below the poverty line.
- **National Maternity Benefit Scheme (NMBS):** NMBS provides for the payment of Rs. 500 per pregnancy to women belonging to poor households for pre-natal and post-natal maternity care upto first two live births.
- **National Family Benefit Scheme (NFBS):** Under National Family Benefit Scheme a BPL household is entitled to a lump sum amount of money on the death of primary breadwinner aged between 18 and 64 years.

## Global Initiative for Food Security:

- **SAVE FOOD by FAO** for reduction of waste and Food Loss.

- **SDG Goal 2(Zero Hunger):**End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- **High-Level Task Force (HLTF) on Global Food and Nutrition Security:** To promote a comprehensive and unified response of the international community to the challenge of achieving global food and nutrition security.
- **World Bank Group partnership on Food Security** works with partners to build food systems that can feed everyone, everywhere, every day by improving food security, promoting 'nutrition-sensitive agriculture' and improving food safety.

### **Salient features of National Food Security Act, (NFSA) 2013:**

- The Public Distribution System (PDS) is governed through the provisions of the National Food Security Act, 2013 (NFSA).
- Coverage under PDS is de-linked from the erstwhile 'poverty estimates'.
- The Act provides coverage for nearly 2/3rd of the country's total population, on the basis of Census 2011 population estimates.
- **75% of Rural and 50% of Urban population** is entitled to receive highly subsidised food grains under two categories of beneficiaries – Antodaya Anna Yojana (AAY) households and Priority Households (PHH).
- State/UT-wise coverage is determined by the erstwhile Planning Commission (now NITI Ayog) on the basis of 2011-12 Household Consumption Expenditure survey of NSSO.
- The Act entitles **35 kg of foodgrains per AAY Household per month**, whereas 5 Kg of foodgrain per PHH Person per month.
- Identification of beneficiaries/households under NFSA is done by the respective State/UT Government, which is required to frame its own criteria.
- Highly subsidised Central Issue Prices of **Re.1, Rs.2 and Rs.3 for Coarse-grains**, Wheat and Rice respectively, kept unchanged till June 2019.

- No reduction in foodgrains allocation to any State/UT under NFSA. Allocation gaps, if any, are covered with Tide-Over allocation.
- Eldest woman of the beneficiary household (18 years or above) is considered as 'Head of Family' for the purpose of issuing ration cards.
- **Grievance redressal mechanism**, through State Food Commissions, DGROs, Vigilance Committees at different levels.
- Provisions for disclosure of records relating to PDS operations, placing of beneficiaries' list in public domain/portals, for enhanced transparency.
- Assistance to States/UTs for meeting expenditure on intra-State transportation & handling of foodgrains and FPS Dealers' margin.

### Challenges in achieving food security

- **Climate Change:** Changing climate, leading to unanticipated consequences for the country's food grain production creating a huge impact on both food production and socio-economic aspects by causing considerable changes in land use patterns and water resource availability.
- **Crop Diversification:** Due to Green revolution most agricultural production shifted towards mono cropping such as rice and wheat production leading to land degradation, desertification and loss of genetic variety.
- **Agricultural Pricing Policy:** Combination of lack of remunerative prices for end goods, distressed sales, high cultivation costs combined with inappropriate market prices are a barrier in the path of food security.
- **Bio-fuel and Medicinal Plant Cultivation:** Another issue for the country is the diversification of field crops such as maize, wheat, and Medicinal Plants such as Ashwagandha, Sarpogandha, and Jatropha to Bio-Fuel.
- **Production of High Yielding Varieties:** New types of field crops are another major challenge for food grain production as the environment changes.
- **New globalisation trends**, such as speedier communication, transportation, and significant development in service industries, have created difficulties of unfairness among diverse parts of society, as well as unenthusiastic rivalry among entrepreneurs. As a result, impoverished farmers are unable to utilise



existing facilities, and the globalised world is discouraged, which has indirectly increased food insecurity in the country.

- **Capital Investment:** In recent years, agriculture's share of capital investment in GDP has remained unchanged.

### **Way forward:**

- **Improve agricultural productivity and Food storage** through increased use of irrigation and newer farming techniques, rationale distribution of cultivable land ,improving the size of the farms,providing security to the tenant cultivators apart from providing the farmers with improved technology for cultivation and improved inputs like irrigation facilities, availability of better quality seeds, fertilizers and credits at lower interest rates.
- **Ensuring food availability and accessibility to below poverty line (BPL) candidates** at affordable price by accurate targeting of the BPL population, remove restrictions on food grains regarding inter-State movement, stocking, exports and trade financing,creating transparent and reliable Public Distribution System.
- **Improving purchasing power through employment generating schemes** such as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), enhancing quantity and quality of wage-paid employment.
- **Ensuring that nutritional objectives should** be an integral part of all the poverty alleviation programmes.
- **Increasing Crop diversification**, establishing food grain banks and promoting household gardening.
- **Community awareness through Information, Education and Communication (IEC )**activities and social marketing.
- **Monitoring and timely evaluation of nutritional programmes.**
- **Community participation and intersectoral coordination.**
- **Encouragement to Horticulture Products:** Horticulture goods require encouragement in order to increase per capita availability of food while

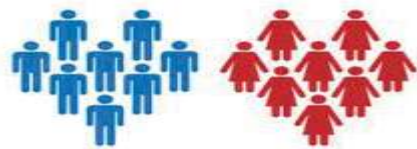


also assuring food security.

- **Infrastructure Requirements:** The government should prioritise warehouses, roads, transportation, and market facilities. Encouragement of the PPP model in agriculture will result in speedier infrastructure development.

**Sharad**

## Decline in “son prejudice” in India



### References:

- A recent study reported that “son bias” is on the decline in India as the sex ratio at birth declined from 111 boys per 100 girls in 2011 to boys per 100 girls in 2019-21 the ratio became 108.

### Major findings of the report:

#### National Scenario:

- The average annual number of “missing” girl children in India declined from about 4.8 lakh in 2010 to 4.1 lakh in 2019.
- “Missing” here means how many more female births would have taken place during this time if there were no female-selective abortions.
- The sex ratio at birth decreased slightly to about 109 in the National Family Health Survey (NFHS) report 2015-16 and NFHS-5 (year 2019-21) from 111 boys per 100 girls in the 2011 Census of India. This number has gone up to 108 boys.
- Nine crore female births went “missing” due to female-selective abortion “between” 2000-2019.

#### Sex Ratio by Religion:

- The report also analysed gender selection on the basis of religion, stating that the

difference was highest for Sikhs.

- The sex ratio of Sikhs in the 2001 census was 130 males per 100 females, much higher than the national average of 110 for that year.
- By the 2011 Census, the sex-ratio of Sikhs had been reduced to 121 boys per 100 girls.
- According to the latest NFHS, it is now around 110, which is similar to the ratio of males to females (109) at birth in the Hindu majority of the country.
- The sex ratio among Christians (100 girls per 105 boys) and Muslims (100 girls per 106 boys) is close to the natural norm.

## Religion wise share of missing girls:

### Share in Indian Population:

- Sikhs: 2%
- Hindu: 80%
- Muslims: 14%
- Christian: 2.3%

### Share of girls missing due to sex-selective abortion:

- Sikhs: 5%
- Hindu: 87%
- Muslims: 7%
- Christian: 0.6%

## History of Sex Ratio in India

- Globally, the number of boys is less than the number of girls at birth, i.e. in the ratio of about 105 male babies per 100 female babies.
- In India, this ratio was the same in the 1950s and 1960s before prenatal sex testing became available across the country.
- The problem began in the 1970s with the availability of prenatal diagnostic technology, which allows sex-selective abortions.
- India legalized abortion in the year 1971 but due to the introduction of ultrasound

technology, the practice of sex selection started in the year 1980s.

- In the 1970s, India's sex ratio was equal to the global average of 105-100, but rose to 108 boys per 100 girls in the early 1980s and to 110 boys per 100 girls in the 1990s gone.

## **Challenges in ensuring balanced birth sex ratio:**

### **Regressive Mindset:**

- Generally, sons are given preference in all states except Kerala and Chhattisgarh.
- The tendency to give preference to boys is related to the regressive mindset, as dowry system is prevalent in the case of girls.

### **Abuse of Technology:**

- Affordable technology like ultrasound encourages the trend of sex selection.

### **Failure to implement the law:**

- The Pre-Conception and Antenatal Diagnostic Techniques Act (PC-PNDT), 1994, which provides for imprisonment and heavy fines for conducting antenatal tests about the sex of the child to health professionals and parents, fails to regulate sex selection Used to be.
- The report found large gaps in the training of personnel implementing PC-PNDT.
- Lack of proper training means that they are unable/incapable of punishing the guilty as per law.

### **Illiteracy:**

- Illiterate women in the reproductive age group of 15-49 years give birth to more children than literate women.

## **Conclusion:**

### **Bringing Change in Practice:**

- Increase in female education and economic prosperity helps in improving the sex ratio. In this endeavour, the Government's "Beti Bachao Beti Padhao" campaign has achieved remarkable success in bringing about behavioural change in the society.

### Sensitizing youth:

- There is an urgent need to reach youth for reproductive, health education and services as well as development of gender equality norms.
- For this, services of Accredited Social Health Activist (ASHA) can be availed especially in rural areas.

### Strict enforcement of law:

- India should more strictly implement the Pre-Conception and Antenatal Diagnostic Techniques Act (PC-PNDT), 1994 and devote more resources to address priority issues of boys.
- In this context, the decision of the Drugs Technical Advisory Board to include ultrasound machines in the Drugs and Cosmetics Act, 1940 is a step in the right direction.

Swadeep Kumar

## One Nation One Fertiliser scheme

**General Studies Paper 3:** Issues related to Direct and Indirect Farm Subsidies and Minimum Support Prices.

**News:** Ministry of Chemicals and Fertilisers has decided to implement **One Nation One Fertiliser** by introducing a “**Single Brand for Fertilisers and Logo**” under the fertiliser subsidy scheme named “**Pradhanmantri Bhartiya Janurvarak Pariyojna**” (PMBJP).

**What is ‘One Nation One Fertiliser ‘or Pradhan Mantri Bhartiya Janurvarak Pariyojna(PM-BJP) scheme?**

- In this initiative, both public and private sector companies will be required to sell subsidized fertilisers under a single brand name, for example, **BHARAT UREA or BHARAT DAP**.
- The new brand name, along with a logo of the renamed scheme — **Pradhan Mantri Bhartiya Janurvarak Pariyojna (Prime Minister’s Public Fertiliser Scheme) or PM-BJP** — will cover **two-thirds** of the front of new fertiliser bags.
- The remaining space on the front will display information about the manufacturer, including name, logo, address and other statutory information.
- According to the Ministry of Chemicals and Fertilizers, the new fertiliser bags will

be introduced.

- Fertiliser companies are advised not to procure any bags carrying the old design from 15 September onwards, the government has given them time till the end of this year to exhaust all old packaging into circulation beginning 2 October.



### Government's role in Fertilizer industry:

- There are some 26 fertilisers (inclusive of urea), on which the government bears subsidy and also effectively decides the Maximum retail price:** MRPs of urea are currently fixed by the government, which compensates companies for the higher cost of manufacturing or imports incurred by them. The MRPs of non-urea fertilisers are decontrolled, but companies cannot avail of subsidy if they sell at MRPs higher than that informally indicated by the government.
- Through the **Fertiliser (Movement) Control Order, 1973** the government with the help of the department of fertilizers not only decides subsidy and selling price of fertilizers but also at what price companies can sell
  - Department of fertilisers draws an agreed monthly supply plan on all subsidised fertilisers in consultation with manufacturers and importers.
  - This supply plan is issued before the 25th of each month for the following month, with the department also regularly monitoring movement to ensure fertiliser availability as per requirement, including remote areas.

**Rationale behind introducing this scheme:** Since, the government is spending vast sums of money on fertiliser subsidy plus deciding where and at what price companies can sell. So, it has all the logic to introduce a single 'Bharat' brand for all subsidised fertilisers.

### Drawbacks of the scheme:

- Any company's strength ultimately is its brands and farmer trust built over decades. But, scheme has potential to disincentivise fertiliser companies from

undertaking marketing and brand promotion activities.

- Fertiliser companies may be reduced to contract manufacturers and importers for the government.
- **Transfer of responsibilities from companies to government:** Currently, in case of any bag or batch of fertilisers not meeting the required standards, the blame is put on the company. But now, that may be passed on fully to the government.

**Sharad**

## Software-as-a-Service (SaaS)

**GS Paper 3:** Science and Technology- Developments and their Applications and Effects in Everyday Life; Awareness in the fields of IT, Space, Computers, Robotics.

**News:** India poised to become next global SaaS capital.

### What is Software-as-a-Service (SaaS)?

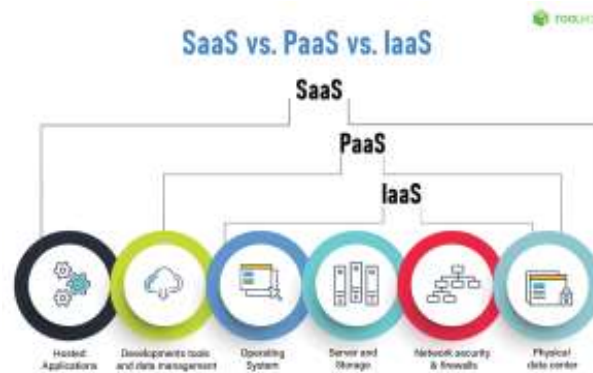
- **Software-as-a-Service (SaaS)** is a software licensing model. It allows access to software on a subscription basis using external servers.
- **Important features of SaaS:** It allows each user to access programs via the Internet. The user need not install the software on his/her computer. The rise of SaaS and cloud-based computing go hand in hand.

### What are other types of cloud services?

- **Platform-as-a-Service(PaaS):** PaaS is a cloud computing model that provides customers a complete cloud platform—hardware, software, and infrastructure—for developing, running, and managing applications without the cost, complexity, and inflexibility that often comes with building and maintaining that platform on-premises.
- **Infrastructure as a service (IaaS):** IaaS is a type of cloud computing service that offers essential compute, storage and networking resources on demand, on a pay-as-you-go basis. IaaS is one of the four types of cloud services, along with software as a service (SaaS), platform as a service (PaaS) and serverless.



- **Serverless computing:** Serverless computing enables developers to build applications without managing infrastructure. With serverless applications, the cloud service provider automatically provisions, scales and manages the infrastructure required to run the code but the code is still running.



## What are the differences between traditional on-premise software delivery model and SaaS?

- **SaaS deployments don't require extensive hardware,** which allows buyers to outsource most of the IT responsibilities typically required to troubleshoot and maintain the software in-house.
- **SaaS systems are typically paid within a subscription model,** whereas on-premise software is usually purchased through a perpetual license, paid upfront.

## What are the benefits of using SaaS?

- **Business applications:** It includes file sharing, email, calendars, customer retention management, and human resources.
- **SaaS is cost-effective** as users pay for SaaS instead of purchasing multiple software licenses for multiple computers.
- SaaS is easy to **implement, update and debug.**
- **Accessibility:** SaaS allows users to access the software through a web browser from multiple locations. He or she can have remote desktop software and can work from home.
- **Scalability:** SaaS providers generally offer many subscription options and flexibility to change subscriptions as and when needed, e.g. when your business grows, or more users need to access the service.
- **Quick setup and deployment:** SaaS application is already installed and configured in the cloud. This minimises common delays resulting from often lengthy traditional

software deployment.

### What are the disadvantages of SaaS?

- **Lack of control:** in-house software application gives businesses a higher degree of control than hosted solutions where control resides with a third party. Typically everyone has to use the latest version of the software application and cannot defer upgrades or changes in the features.
- **Security and data concerns:** Access management and the privacy of sensitive information is a major consideration around cloud and hosted services.
- **Limited range of applications:** while SaaS is becoming more popular, there are still many applications that don't offer a hosted platform.
- **Connectivity requirement:** since the SaaS model is based on web delivery, if your internet service fails, you will lose access to your software or data
- **Performance:** SaaS may run at somewhat slower speeds than on-premise client or server applications, so it's worth keeping performance in mind your software isn't hosted on a local machine.

### What are some of the examples of SaaS?



- **Amazon Web Services (AWS):** It is a subsidiary of Amazon. It provides around 150 services and has more than a million subscribers. AWS is even used by streaming companies like Netflix, defence organizations like the US Navy, and the world's most famous space organisation NASA.
- **Dropbox:** Files stored in Dropbox can be accessed from any device, from any loca-

tion at any time.

- **Google Apps:** Google drive enables employees to access files from any location from any device.
- **Salesforce:** It is a Customer Relationship Management (CRM) tool, enabling employees of organizations to access the required information from any device at any location.
- **SAP Cloud Platform:** Launched by SAP in 2012
- **Microsoft Azure:** Launched by Microsoft in 2010.

### Previous Year Questions:

Q. With reference to “Software as a Service (SaaS)”, consider the following statements:

- 1.SaaS buyers can customize the user interface and can change data fields.
- 2.SaaS users can access their data through their mobile devices.
- 3.Outlook, Hotmail and Yahoo! Mail is a form of SaaS.

Which of the statements given above are correct?

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

**Sharad**

## Acceleration in Bank credit growth

**GS Paper 3:** Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment; Inclusive Growth and issues arising from it.

**News:** RBI data showed that Bank credit growth accelerated to 14.2% in the quarter ended June 2022 from 6% in the same period of the previous year outpacing deposit growth.

### What is the meaning of Credit Growth?

- Rise in demand for loans is called credit growth.

- Credit growth is measured as the **annual percent change in total outstanding loans of individual banks**, while the soundness of banks is measured by their distance to default.

### What is the meaning of deposit Growth?

- Deposit Growth means the rate of annual growth in an entity's deposits, other than certificates of deposit (or other similar deposit instruments), for a fiscal year.

### Importance of Credit Growth for banks:

- **Credit Growth is an important indicator of economic activity.** In exchange for the money you deposit in your bank account, banks promise to pay you a regular interest. The longer the tenure of your account, the higher is your interest rate. This is because your deposits are a source of cheap funding for banks. It has to pay you only 4-6% on your savings account deposits. This is lower than the 8% it pays when borrowing from the RBI. Banks then lend the money for a higher interest rate. This earns banks an interest income. The higher interest payments help banks make profit.

### What is the credit-deposit ratio for banks?

- The **CD ratio** refers to the credit-deposit ratio in banking parlance. It tells us how much money banks have raised in the form of deposits has been deployed as loans.
- So, if the CD ratio for a single bank or whole banking system stands at 75%, it means that three-fourth of the deposits with that bank or with the system has been given out as loans.

### Why is the CD ratio important?

**CD ratio denotes the value of loans given as a share of deposits held by banks.**

- A low CD ratio suggests relatively poor credit growth compared with deposit growth.
- A high CD ratio would mean strong demand for credit in an environment or relatively slower deposit growth. CD ratio had slipped to historic lows of under 70% during demonetisation.

### What are the reasons for credit growth?

- **Financial deepening:** When Credit grows faster than GDP as an economy develops then financial deepening happens.
- **Normal Cyclical upturns:** Credit growth can happen or grow faster than GDP when

firms' investment and working capital needs fluctuate with the business cycle.

- **Excessive cyclical Movements:** When stock prices shoot up, as in case of credit boom firms' net worth rises sharply. Banks may then be tempted to lend more.

### **Key findings from 'Quarterly Statistics on Deposits and Credit of SCBs for June 2022' by RBI**

- **RBI data showed that Bank credit growth accelerated to 14.2% in the quarter ended June 2022 from 6% in the same period of the previous year, outpacing deposit growth.**
- **India has witnessed broad-based Credit growth:** All the population groups (i.e., rural, semi-urban, urban and metropolitan), all the bank groups (i.e., public/private sector banks, foreign banks, RRBs and SFBs) and all the regions of the country (i.e., central, eastern, north-eastern, northern, southern and western) recorded double-digit annual credit growth in June 2022.
- **Aggregate deposit growth (year-on-year)** has remained in the range 9.5 – 10.2% during the last five quarters.
- **Metropolitan branches** continue to **account for over half of the bank deposits** and their share increased marginally over the last one year.
- The **share of current account and savings account (CASA) deposits in total deposits** has been **increasing** over the last three years (42% in June 2020, 43.8% in June 2021 and 44.5% in June 2022).
- As **credit growth is outpacing deposit growth** in the recent period, **credit-deposit (C-D) ratio has been on the rise**, the data showed.
- In June 2022, **C-D ratio stood at 73.5% at all-India level (70.5% a year earlier)** and 86.2% for metropolitan branches of banks (84.3% a year earlier)

**Sharad**