



Sleepy Classes

Free. Regular. Quality.

2-Minute Series

A compilation of foundational topics prerequisite for Civil Services

For the 2nd Week

of

February 2021

(8th February - 13th February)

Visit our website www.sleepyclasses.com or

our [YouTube channel](#) for entire GS Course **FREE** of cost

Also Available: Prelims Crash Course || Prelims Test Series

Table of Contents

1. Geography	1
1.1. <i>Agriculture Infrastructure Fund (AIF)</i>	1
2. History	3
2.1. <i>Kalighat paintings</i>	3
3. Polity & Governance	4
3.1. <i>National Financial Reporting Authority (NFRA)</i>	4
4. Economy	6
4.1. <i>Global Hunger Index</i>	6
5. Environment & Ecology	9
5.1. <i>World Wetlands Day</i>	9
6. Science & Technology	11
6.1. <i>Li-Fi (or Light Fidelity)</i>	11

1. Geography

1.1. Agriculture Infrastructure Fund (AIF)

- Recently, Prime Minister launched a new Central Sector Scheme of a financing facility under Rs. 1 Lakh Crore Agriculture Infrastructure Fund.
- The scheme shall provide a medium - long term debt financing facility for investment in viable projects for post-harvest management Infrastructure and community
- farming assets through interest subvention and financial support in order to improve agriculture infrastructure in the country.
- Under the scheme, Rs. One Lakh Crore will be provided by banks and financial institutions as loans to Primary Agricultural Credit Societies (PACS), Marketing Cooperative Societies, Farmer Producers Organizations (FPOs), Self Help Group (SHG), Farmers, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri- entrepreneurs, Startups, Aggregation Infrastructure Providers and Central/State agency or Local Body sponsored Public Private Partnership Project.

Implementation Period of Scheme

- The Scheme will be operational from 2020-21 to 2029-30. Disbursement in four years starting with sanction of Rs. 10,000 crore in the first year and Rs. 30,000 crore each in next three financial years.
- Moratorium for repayment under this financing facility may vary subject to minimum of 6 months and maximum of 2 years.
- All loans under this financing facility will have interest subvention of 3% per annum up to a limit of Rs. 2 crore.
- This subvention will be available for a maximum period of seven years.
Further, credit guarantee coverage will be available for eligible borrowers from this
- financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs. 2 crores.
- The fee for this coverage will be paid by the Government.
- In case of FPOs the credit guarantee may be availed from the facility created under FPO promotion scheme of Department of Agriculture, Cooperation & Farmers Welfare (DACFW).
- The total outflow as budgetary support from Government of India (GoI) will be Rs.10,736 crore.

Additional Points

From Official Scheme Guidelines Doc

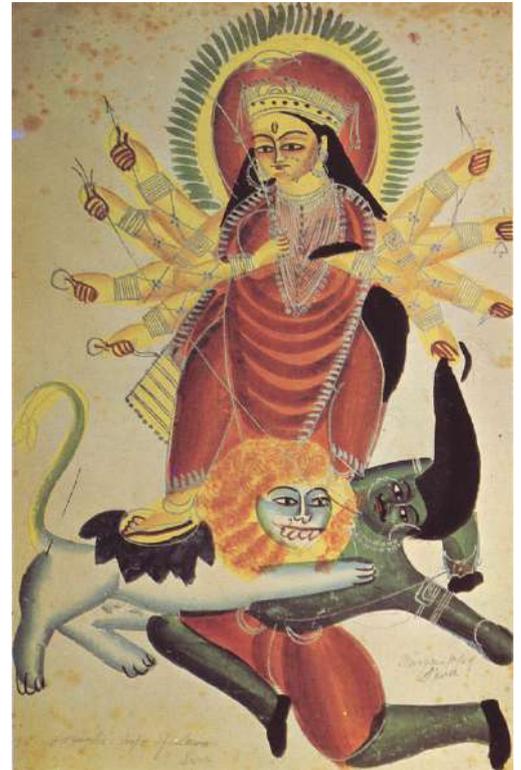
- Farmers (including FPOs, PACS, Marketing Cooperative Societies , Multipurpose cooperative Societies)
 - ✓ Improved market infrastructure to allow farmers to sell directly to a larger base of consumers and hence, increase value realisation for the farmers. This will improve the overall income of farmers.

- ✓ With investments in logistics infrastructure, farmers will be able to sell in the market with reduced post-harvest losses and a smaller number of intermediaries. This further will make farmers independent and improve access to market.
- ✓ With modern packaging and cold storage system access, farmers will be able to further decide when to sell in the market and improve realisation.
- ✓ Community farming assets for improved productivity and optimisation of inputs will result in substantial savings to farmers.
- Government
 - ✓ Government will be able to direct priority sector lending in the currently unviable projects by supporting through interest subvention, incentive and credit guarantee. This will initiate the cycle of innovation and private sector investment in agriculture.
 - ✓ Due to improvements in post-harvest infrastructure, government will further be able to reduce national food wastage percentage thereby enable agriculture sector to become competitive with current global levels.
 - ✓ Central/state Government Agencies or local bodies will be able to structure viable PPP projects for attracting investing in agriculture infrastructure.
- Agri entrepreneurs and startups
 - ✓ With a dedicated source of funding, entrepreneurs will push for innovation in agriculture sector by leveraging new age technologies including IoT, AI, etc.
 - ✓ It will also connect the players in ecosystem and hence, improves avenues for collaboration between entrepreneurs and farmers.
- Banking ecosystem
 - ✓ With credit guarantee, incentive and interest subvention lending institution will be able to lend with a lower risk. This scheme will help to enlarge their customer base and diversification of portfolio.
 - ✓ Refinance facility will enable larger role for cooperative banks and RRBs.
- Consumers
 - ✓ With reduced inefficiencies in post-harvest, key benefit for consumers will be a larger share of produce reaching the market and hence, better quality and prices. Overall, the investment via the financing facility in agriculture infrastructure will benefit all the eco-system players.

2. History

2.1. Kalighat paintings

- Kalighat painting or Kalighat Pat originated in the 19th century in West Bengal, India, in the vicinity of Kalighat Kali Temple, Kalighat, Calcutta,
- They have over a period of time developed as a distinct school of Indian painting.
- From the depiction of Hindu gods, god, and other mythological characters, the Kalighat paintings developed to reflect a variety of subjects, including many depictions of everyday life.
- In the 19th century, the only school of painting that was flourishing in Bengal was the traditional art of scroll paintings that was popular in the rural areas. These paintings were done on cloth or patas.
- They depicted conventional images of gods and goddesses and scenes from epics like Tulsidas' Rama Charita Manas.
- The artists were villagers who travelled from place to place with their scroll paintings and sang the scenes from the epics depicted in the paintings during village gatherings and various festivals. These artists, called patuas or 'painters on cloth'.
- The British, having established themselves in the country politically started to evince interest in art, literature, and music. They set up institutions that imparted a European style of academic training to Indian artists. The Calcutta School of Art was one such school and attracted traditional artists—the patuas—to the city.
- Initially, these artists were concentrated around the temple at Kalighat where there was a demand for religious art. Gradually, they started to learn from the newer techniques and discovered that these could help them increase their earnings. They started creating new forms of art and the Kalighat painting was born.
- The Kalighat artists did not restrict themselves to religious themes. Their paintings depicting different professions and costumes were also popular with tourists. Even contemporary events like crime were the subject of many paintings.
- The artists also chose to portray secular themes and personalities and, in the process, played a role in the Independence movement.



3. Polity & Governance

3.1. National Financial Reporting Authority (NFRA)

- The National Financial Reporting Authority (NFRA) was constituted on 01st October, 2018 by the Government of India under Sub Section (1) of section 132 of the Companies Act, 2013.
- The aim of the Central Government in this regard appears to be:
 - ✓ Setting up of a separate and independent regulatory body to assist in the framing and enforcement of legislation relating to accounting & auditing and
 - ✓ Improving investor and public confidence in the financial reporting of an entity.

Composition of the NFRA

- The Companies Act requires the NFRA to have a chairperson who will be appointed by the Central Government and a maximum of 15 members. The appointment of such chairperson and members are subject to the following qualifications:
 - ✓ They should be having an expertise in accountancy, auditing, finance or law.
 - ✓ They are required to make a declaration to the Central Government that there is no conflict of interest or lack of independence in their appointment.
 - ✓ All the members including the chairperson who are in full-time employment should not be associated with any audit firm (including related consultancy firms) during their term of office and 2 years after their term.

The NFRA shall have the following powers

- To investigate the matters of professional or other misconduct committed by a prescribed class of CA firms or CAs. No other authority can initiate or continue proceedings where the NFRA has initiated an investigation. Such an investigation can be initiated either suo moto (by itself) or on a reference made by the Central Government.
- The same powers as a Civil Court under the Code of Criminal Procedure, 1908, in respect of a suit involving the following matters.
 - ✓ Discovery and production of books of account and other documents, at such place and time as may be specified by the NFRA
 - ✓ Summoning and enforcing the attendance of persons and examining them under oath
 - ✓ Inspection of any books, registers, and other documents of any person at any place
 - ✓ Issuing commissions for the examination of witnesses or documents
- Where professional or other misconduct is proved, it shall have the power to impose the following punishment:
 - Penalty
 - ✓ For individuals a fine between Rs. 1,00,000 to 5 times the fees received;
 - ✓ For firms a fine Between Rs. 5,00,000 to 10 times the fees received;

- Debarring the member/firm from practice as a member of ICAI between 6 months to 10 years as may be decided
- Any person who is not satisfied with the order of the NFRA can then make an appeal to the Appellate Authority.

Scope of the NFRA

- As discussed earlier, the NFRA has the power to investigate and also conduct quality reviews for a certain prescribed class of companies. While the draft NFRA Rules have not been prescribed yet, they would include the following class of companies if implemented as it is:
 - Companies listed in India
 - Unlisted Companies whose:
 - ✓ Net worth \geq Rs. 500 crore; or
 - ✓ Paid up Capital \geq Rs. 500 crore; or
 - ✓ Annual turnover \geq Rs. 1000 crore (As on 31st March of the preceding financial year); OR
 - ✓ Companies whose securities are listed outside India
 - The NFRA also holds the power of investigation of a certain class of bodies corporate or persons (auditors) in relation to matters of professional or other misconduct by a member or firm of Chartered Accountants or auditors. In this regard, as per the draft NFRA rules, the auditors or audit firms which conduct the audit of the following category of companies or their branches (including through the network/brand to which it belongs) whether directly or indirectly, are covered:
 - Audit of \geq 200 companies in a year;
 - Audit of \geq 20 listed companies;
 - Company or companies (whether listed or not), having:
 - ✓ Net Worth \geq Rs. 500 crores; or
 - ✓ Paid up Capital \geq Rs. 500 crores; or
 - ✓ Annual turnover \geq Rs. 1000 crores;(As on 31st March of the immediately preceding financial year);
OR
 - ✓ Company or Companies listed outside India.

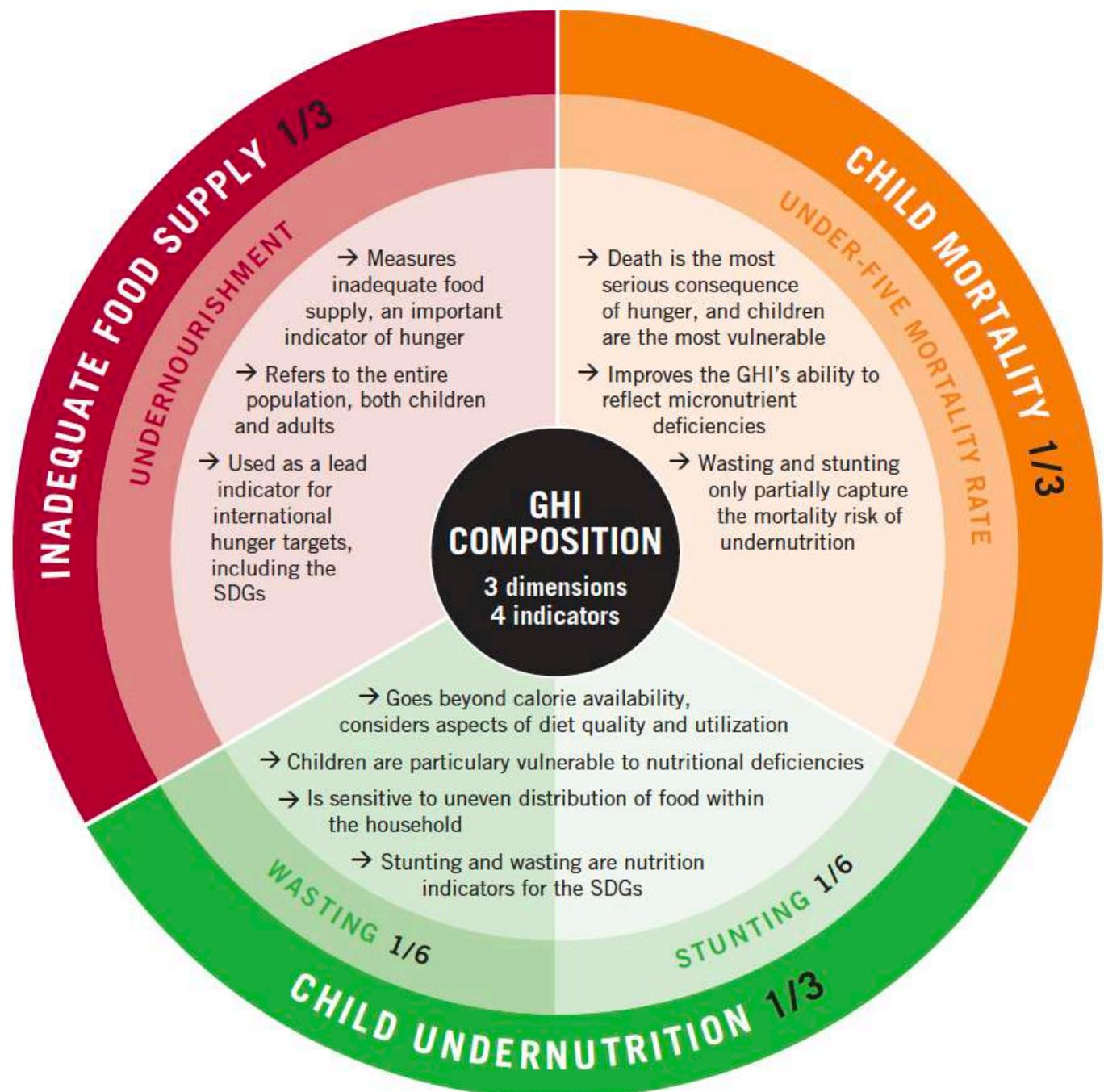
4. Economy

4.1. Global Hunger Index

- The Global Hunger Index (GHI) is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels.
- The Global Hunger Index is a peer-reviewed annual report, jointly published by Concern Worldwide and Welthungerhilfe, designed to comprehensively measure and track hunger at the global, regional, and country levels.

Components

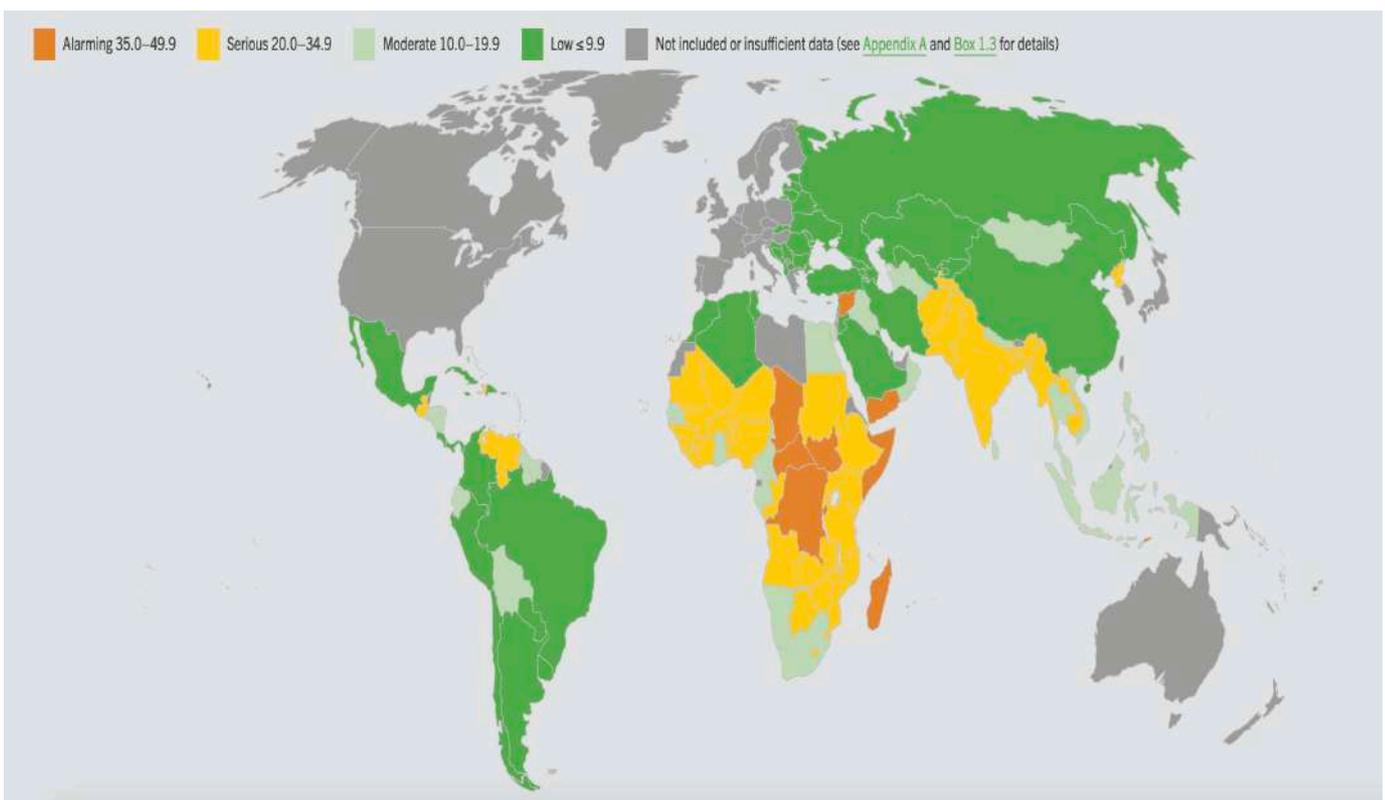
- GHI scores are based on the values of four component indicators:
- Undernourishment (share of the population with insufficient caloric intake)



- Child wasting (share of children under age five who have low weight for their height, reflecting acute undernutrition)
- Child stunting (share of children under age five who have low height for their age, reflecting chronic undernutrition)
- Child mortality (mortality rate of children under age five, partly reflecting the fatal mix of inadequate nutrition and unhealthy environments)

Based on the values of the four indicators, the GHI determines hunger on a 100-point scale where 0 is the best possible score (no hunger) and 100 is the worst.

Each country's GHI score is classified by severity, from low to extremely alarming.



Global Hunger Index & India

- In the 2020 Global Hunger Index, India ranks 94th out of the 107 countries with sufficient data to calculate 2020 GHI scores.
- With a score of 27.2, India has a level of hunger that is serious
- According to the report, 14 per cent of India's population is undernourished.
- Also, India recorded a child stunting rate of 37.4 per cent.

- Stunted children are those who have a “low height for their age, reflecting chronic undernutrition”.

Important Terms

- Hunger is usually understood to refer to the distress associated with a lack of sufficient calories. The Food and Agriculture Organization of the United Nations (FAO) defines food deprivation, or undernourishment, as the consumption of too few calories to provide the minimum amount of dietary energy that each individual requires to live a healthy and productive life, given that person’s sex, age, stature, and physical activity level.
- Undernutrition goes beyond calories and signifies deficiencies in any or all of the following: energy, protein, and/ or essential vitamins and minerals. Undernutrition is the result of inadequate intake of food in terms of either quantity or quality, poor utilization of nutrients due to infections or other illnesses, or a combination of these factors. These, in turn, are caused by a range of factors, including household food insecurity; inadequate maternal health or childcare practices; or inadequate access to health services, safe water, and sanitation.
- Malnutrition refers more broadly to both undernutrition (problems caused by deficiencies) and overnutrition (problems caused by unbalanced diets, such as consuming too many calories in relation to requirements with or without low intake of micronutrient-rich foods).
- Taken together, the component indicators reflect deficiencies in calories as well as in micronutrients.

5. Environment & Ecology

5.1. World Wetlands Day

Introduction

- World Wetlands Day is celebrated every year on 2nd February.
- This day marks the date of the adoption of the Convention on Wetlands on 2nd February 1971, in the Iranian city of Ramsar on the shores of the Caspian Sea.
- The year 2021 also commemorates the 50th anniversary of the Convention on Wetlands signed on 2nd February 1971 in the Iranian city of Ramsar.



Themes 2021



- Organised by the Ramsar Convention on Wetlands, the 2021 theme focuses on the intrinsic link between wetlands and freshwater,
- Highlighting the role wetlands play in the quantity and quality of freshwater on our planet.

Themes

- It was first celebrated in 1997.

Wetlands In India

- India has nearly 4.6% of its land as wetlands
- covering an area of 15.26 million hectares
- and has 42 sites designated as Wetlands of International Importance (Ramsar Sites), with a surface area of 1.08 million hectares.
- Wetlands are regulated under the Wetlands (Conservation and Management) Rules, 2017.
- The 2010 version of the Rules provided for a Central Wetland Regulatory Authority, but new Rules of 2017 replaced it with state-level bodies and created a National Wetland Committee, which functions in an advisory role.

World Wetlands Day

WWD2020: Wetlands & Biodiversity

WWD2019: Wetlands and Climate Change

WWD2018: Wetlands for a sustainable urban future

WWD2017: Wetlands for Disaster Risk Reduction

WWD2016: Wetlands for our Future: Sustainable Livelihoods

WWD2015: Wetlands for our Future

WWD2014: Wetlands and agriculture

WWD2013: Wetlands and water management

WWD2012: Wetlands and tourism

WWD2011: Wetlands and forests

WWD2010: Wetlands, biodiversity and climate change



- On the occasion of the World Wetland Day, the Minister of State for Environment, Forest and Climate Change, announced the establishment of a Centre for Wetland Conservation and Management (CWCM), as a part of the National Centre for Sustainable Coastal Management (NCSCM), Chennai, an institution under the Ministry.
- The Centre will help in building partnership and networks with relevant national and international agencies.
- WCM would serve as a knowledge hub and enable exchange between State/ UT Wetland Authorities, wetland users, managers, researchers, policy-makers and practitioners.
- The Centre would also assist the national and State/ UT Governments in the design and implementation of policy and regulatory frameworks, management planning, monitoring and targeted research for its conservation.

6. Science & Technology

6.1. Li-Fi (or Light Fidelity)

- Prof. Harald Haas of the University of Edinburgh coined the term in 2011
- Light-Fidelity is a new technology that uses light waves, instead of radio frequency waves, as a medium to carry data
- An improvised LED bulb functions as a router
 - ✓ Internet data flows in via the device into the bulb, and is carried by light waves and is received by a dongle-type device connected to a computer

Why Li-Fi

- Radio Frequency (RF) spectrum would not be enough considering the rate of growth of wireless data communication
 - ✓ Li-Fi has access to a greater range of available frequencies as the visible light spectrum is 10,000 times larger than the entire radio spectrum. The visible light spectrum covers frequencies from 430,000 to 770,000 GHz and colors from near ultraviolet to near infrared.
- Li-Fi overcomes the issues in traditional wireless communication, like the shortage of spectrum and network disruption because of interference
- It transmits data at terabits per second speeds—more than 100 times the speed of Wi-Fi. In Li-Fi, anyone who has access to light can access the Internet. The system also allows users to move from one light source to another without losing their network connection
- At night, the stream of photons can be reduced to a minimal level that won't produce visible light but enough to carry data
- Use of phosphorescent paint on the walls adds more noise to the signal and can be selectively used to restrict the Li-Fi usage
 - ✓ Also, on absorbing light, phosphorescent paint remains in an excited state and continues to emit light even several hours after the original source of light has been switched off. This would mean that signal transmission can continue for hours even when light source has been turned off

Benefits

- Visible light spectrum is available in plenty, unlicensed and free to use
- Double benefit of a bulb giving us light as well as internet access
- Low interference leads to very high data speed
- Li-Fi works under water as well
- Not harmful, unlike RF that can interfere with electronic circuitry
- Light won't pass through walls, making eavesdropping nearly impossible
- LED illumination is already efficient and data transmission needs very little additional power
- It can achieve about 1000 times data density of Wi-Fi, since light can be contained in an area

- Data-heavy communication in short ranges
- IoT

✓ Traffic lights can communicate to the vehicles and with each other. Vehicles having LED-based headlights and tail lamps can communicate with each other and prevent accidents by exchanging information. Also, through the use of Li-Fi, traffic control can be made intelligent and real-time adaptable

✓ Visible light being safer, they can also be used in places where radio waves can't be used such as petrochemical and nuclear plants and hospitals

Shortcomings

- Can't pass through opaque objects and needs line of sight for communication
- Likely to face interference from external light sources such as sunlight and bulbs and obstructions in the path of transmission and hence may cause interruptions in communication
- Initially, there will be high installation costs of visual light communication systems as an add-on to lighting systems.

UPSC & Li-Fi

- With reference to visible light communication bracket VLC bracket close technology, which of the following statements are correct?
 - ✓ VLC uses electromagnetic spectrum wavelength 375 to 780 nm
 - ✓ VLC is known as long-range optical wireless communication
 - ✓ VLC can transmit large amounts of data faster than Bluetooth
 - ✓ VLC has no electromagnetic interference
- With reference to Li-Fi, recently in the news, which of the following statements is/are correct?
 - ✓ It uses light is the medium for high-speed data transmission
 - ✓ It is a wireless technology under several times faster than Wi-Fi