2nd Oct, 2024

1. Swallowtail butterflies
GS 3 (Environment)

- **Why in News:** A new study has found that overexploitation of 25 species of host plants valued for their medicinal properties has affected swallowtail butterflies in forests on the Brahmaputra's northern bank.
- **About Swallowtail butterflies:**
  - These are a group of butterflies in the family Papilionidae (order Lepidoptera).
  - **Appearance**: They are named for the characteristic tail-like extensions of the hindwings, although many species are tailless.

Preparing for the next pandemic: what NITI Aayog report says

ANURADHA MASCARENHAS
JUNE, OCTOBER 1

FOUR YEARS after the outbreak of Covid, an expert group constituted by NITI Aayog has recommended setting up a comprehensive framework to effectively manage future public health emergencies or pandemics.

The Pandemic Preparedness and Emergency Response (PPER) framework has called for a new Public Health Emergency Management Act (PHEMA), and the implementation of other measures to ensure a swift and effective response within the first 100 days of the outbreak.

The expert group, which was formed in June 2023, based its recommendations on the learnings and challenges of the Covid-19 pandemic and other public health crises. A government statement noted that Covid-19 was "undoubtedly not the last pandemic", and "given the unpredictable, changing planetary ecology, climate and human-animal-plant dynamics, new potentially, large-scale infectious threats to human health are inevitable".

Here are some of the key recommendations made by the expert group in its report, *Future Pandemic Preparedness and Emergency Response: A Framework for Action*, which was published on September 11.

Enactment of PHEMA

Public health emergencies require governments to exercise special powers such as mandatory screening of people and putting restrictions on free movement. During the Covid-19 pandemic, provisions of the Epidemic Diseases Act (EDA), 1897, and the National Disaster Management Act (NDMA), 2005, were invoked.

But these laws were not entirely satisfactory, the report said. "The EDA 1897 does not define "dangerous", "infectious", or "contagious diseases", or "epidemic". It contains no provisions for the processes required for dissemination of drugs/vaccines, and the quarantine measures and other preventive steps that need to be taken," it said.

The NDMA was likewise not designed to cater to health emergencies. "It does not specifically define public health emergencies or epidemics. It focuses on managing several types of disasters, including natural disasters," the report said.

These gaps can be filled by enacting PHEMA, the report said. The new law can empower central and state governments to effectively respond to not just pandemics, but also other kinds of health emergencies arising from non-communicable diseases, disasters or bioterrorism.

EXPLAINED HEALTH

Renu Swarup, head of the expert group and former Secretary of the Department of Biotechnology, told *The Indian Express*, "This special provision Act would empower public health agencies to take urgent action. It would create public health cadres at national and state levels who would be trained and fully prepared to be the first responder."

Empowered panel of Secys

The report proposed creating an Empowered Group of Secretaries (EGoS) — a committee of officials which will be headed by Cabinet Secretary to prepare for public health emergencies and monitor preparedness during peace times. It will "guide on governance, finance, R&D, surveillance, partnerships and collaborations, and other necessary functions that can be ramped up for immediate response" in case of an emergency.

EGoS will develop Standard Operating Procedures (SOP) for pandemics, and establish subcommittees for aforementioned functions, the report said.

Strengthen surveillance

The report made several recommendations for strengthening the disease surveillance network.

It noted that several epidemics and pandemics, including Covid-19, in the past 50 years were caused by viruses linked to various bat species. Therefore, constant monitoring of the human-bat interfaces was crucial.

The report proposed the creation of a national biosecurity and biosafety network, involving leading research institutions, biosafety containment facilities (labs that use specific safety equipment, practices, and building design to protect people and the environment from biological hazards), and genome sequencing centres.

Swarup said, "All components of this system should be strengthened and connected to work in a harmonised, autopilot mode that gets ignited as soon as the first warning sign is received."

The report also recommended setting up an emergency vaccine bank, which would source vaccines from within or outside the country.

Network for early warning

The report proposed building an epidemiology forecasting and modelling network that can predict transmission dynamics of infectious diseases, and monitor the effectiveness of countermeasures, including vaccination, in different scenarios.

A network of centres of excellence (CoE) for research on priority pathogens is also required. Diagnostics, therapeutics, and vaccines for such priority pathogens, identified from the list maintained by the World Health Organisation, can be developed in advance, the report said.

Independent drug regulator

India needs a well-developed clinical trial network accepted by international regulatory authorities to ensure speedy access to innovative products to tackle public health emergencies. The Central Drugs Standards Control Organisation (CDSCO), which is responsible for regulating the import, sale, manufacture and distribution of drugs, needs to be independent, and needs to have special powers, the report said. The CDSCO is currently under the Ministry of Health.

  - **Distribution**: The swallowtail butterflies (Papilio) are found worldwide except in the Arctic.
  - India hosts 77 of the 573 swallowtail butterfly species recorded across the world so far.
  - Many swallowtails mimic the coloration and patterns of butterflies that are protected by bad taste.
  - **Threats**: Illegal cattle farming within the protected areas, agriculture and tea cultivation near the habitats, illegal tree felling and pesticide use are among the crucial factors contributing to the decline in the number of these Swallowtail butterflies.
  - **Ecological Importance of Butterflies:** These are valuable indicators of the environment, whose health can influence their presence, abundance, and diversity.

2. NITI Aayog Report on Future Pandemic Preparedness
GS 2 (Governance)

- **Why in News:** NITI Aayog has released an Expert Group report titled 'Future Pandemic Preparedness and Emergency Response —A Framework for Action'. This report has provided a blueprint for the country to prepare for any future public health emergency or pandemic and have a rapid response system in place.
- **Background – the formation of an expert group**
  - **COVID 19 – Not the last pandemic**
    - The COVID-19 contagion is undoubtedly not the last pandemic.
    - Given the unpredictably, changing planetary ecology, climate and human-animal-plant dynamics, new potentially, large-scale infectious threats to human health are inevitable.
    - The WHO has warned the world that 75% of future public health threats are likely to be zoonotic threats (which could be due to emerging, re-emerging and new pathogens).

Swallowtail butterflies in key Assam habitat face a citrus worry

India hosts 77 of the 573 swallowtail butterfly species recorded across the world so far. The International Union for Conservation of Nature designated the northeastern part of the country, where 69 species have been recorded, a 'swallowtail-rich zone' under the Swallowtail Conservation Action Plan

Rahul Karmakar

The overexploitation of 25 species of host plants valued for their medicinal properties threatens the swallowtail butterflies in the forest habitats of a part of Assam often referred to as the "citrus belt of the world," a new study has found.

The study, conducted in the Bodoland Territorial Region on the northern bank of the Brahmaputra River, also underscored illegal cattle farming within the protected areas, agriculture and tea cultivation near the habitats, illegal tree felling, and pesticide use to be among the crucial factors contributing to the decline in the number of these butterflies.

Kushal Choudhury of Bodoland University's Department of Zoology is the author of the study, which was published in the *Journal of Threatened Taxa*.

"The decline of swallowtail butterflies in forest habitats, which was not a major concern about two decades ago, made the International Union for Conservation of Nature mark them as globally endangered," he said.

India hosts 77 of the 573 swallowtail butterfly species recorded across the world so far. The International Union for Conservation of Nature designated the northeastern part of the country, where 69 species have been recorded, a "swallowtail-rich zone" under the Swallowtail Conservation Action Plan.

Dr. Choudhury's study documented 4,267 individuals belonging to 28 species representing eight genera. Three are endemic to the region, while 12 enjoy federal protection.

"Butterflies are valuable indicators of the environment, whose health can influence their presence, abundance, and diversity. The findings suggest that the studied landscape [in the Bodoland Territorial region] is crucial in supporting larval host plants, adult resources of swallowtail butterflies, and other abiotic factors," he said.

The Bodoland Territorial Region is a Sixth Schedule area covering 8,970 sq. km. About 40% of it is covered with forests, mostly toward the border in the north with Bhutan. The butterflies Dr. Choudhury studied in the region's Manas Biosphere Reserve were found to count 25 plant species from six families as their essential food sources.

Plant problem

"Unfortunately, these host plants, valued for their traditional medicinal properties, are being coerced to find," Dr. Choudhury said, noting the absence of two rare species — the Bhutan glory (*Bhutanitis lidderdalii*) and the Kaiser-i-Hind

The Paris peacock (*Papilio paris*) is a species of swallowtail butterfly found in India's northeast. SPECIAL ARRANGEMENT

The blue-striped mime (*Papilio elatus*), a species of swallowtail butterfly. SPECIAL ARRANGEMENT

(rahul.karmakar@thehindu.co.in)

THE GIST

The decline of swallowtail butterflies in forest habitats, which was not a major concern about two decades ago, made the International Union for Conservation of Nature mark them as globally endangered

Butterflies are indicators of environmental health, which influences their presence, abundance, and diversity. The Bodoland Territorial Region is crucial in supporting larval host plants, adult resources, and other abiotic factors

Harvesting of citrus plants for medicinal properties may have shrunk the population of these butterflies, some of which feed exclusively on certain species of the plant. The citrus plants are now mostly confined to home gardens or backyard settings

The lack of related host plant resources raises concerns about their long-term survival. Host plants are fundamental to the lifecycle of many species, playing an essential role in their reproduction and sustenance

Papilio genus of these butterflies for the development of their larvae.

According to the study, these citrus species are now confined mostly to home gardens or backyard settings instead of wild or semi-wild habitats because the coverage of forested lands has been shrinking and due to overexploitation. "This decline in the wild population of citrus species may be a possible reason for the disappearance of these butterfly species," the paper read.

The extensive harvesting of three species of plants of the family *Aristolochiaceae* from the wild was found to have affected the density of the swallowtails belonging to the *Atrophaneura*, *Pachliopta*, and *Troides* genera. These butterflies have a specialised diet and feed exclusively on plants from this family.

The exploitation of *Ligustrum confusum*, a plant used in traditional medicine, has similarly affected the swallowtails of the genus *Lamproptera*. The scenario is no different for the butterflies of other genera, such as *Graphium*, which feed on plants of the *Lauraceae* and *Magnoliaceae* families.

"The lack of related host plant resources for these species raises concern about their long-term survival and ecological well-being. Host plants are fundamental to the lifecycle of many species, playing an essential role in their reproduction and sustenance," Dr. Choudhury said.

  - **Formation of an expert group**
    - In June 2023, NITI Aayog, recognizing the likelihood of future pandemics due to changing planetary ecology, climate, and human-animal-plant dynamics, constituted an Expert Group.

- The expert group was created to provide a Framework for Action for future pandemic preparedness.
- Its key task was to analyze how COVID-19 was managed both nationally and globally, identifying lessons learned from successes and challenges.
- The group aimed to pinpoint gaps in response strategies to enhance preparedness for future public health emergencies.
- Their report provides a comprehensive blueprint for efficient and effective responses to large-scale infectious threats.

- **Key recommendations of the report**
  - **Public Health Emergency Management Act (PHEMA)**
    - **Highlights the limitations of the existing legal framework**
      - The report highlights the limitations of the existing legal framework used during the COVID-19 pandemic, specifically the **Epidemic Diseases Act (EDA) of 1897** and the **National Disaster Management Act (NDMA) of 2005**.
      - The EDA lacks definitions for key terms like "dangerous" or "infectious" diseases and doesn't address processes for drug distribution, vaccines, quarantine, or preventive measures.
      - Similarly, the NDMA was not designed to manage health emergencies, as it primarily focuses on natural disasters.
    - **Enacting a new Public Health Emergency Management Act (PHEMA)**
      - To address these gaps, the report recommends enacting a new Public Health Emergency Management Act (PHEMA).
      - This law would empower central and state governments to respond effectively to pandemics and other health emergencies, including non-communicable diseases, disasters, or bioterrorism.
      - PHEMA would equip public health agencies with urgent action powers and create trained public health cadres at national and state levels to act as first responders.
  - **Empowered panel of Secretaries**
    - The report proposes establishing an Empowered Group of Secretaries (EGoS), headed by the Cabinet Secretary, to oversee public health emergency preparedness and response.
    - This committee will operate during non-crisis periods to strengthen governance, finance, R&D, surveillance, and partnerships, ensuring a rapid response when emergencies arise.
    - EGoS will also create Standard Operating Procedures (SOPs) for handling pandemics and set up sub-committees to manage these key areas effectively, enhancing the nation's readiness for future health crises.
  - **Strengthen surveillance**
    - The report emphasizes the need to strengthen India's disease surveillance network, particularly in light of past epidemics and pandemics, many of which were linked to viruses originating from bat species.
    - It stresses the importance of constant monitoring at human-bat interfaces.
    - Key recommendations include establishing a national biosecurity and biosafety network, which would connect leading research institutions, biosafety containment labs, and genome sequencing centers.
    - This system should operate in a coordinated, automated manner to respond swiftly to early warning signs of a public health threat.
    - Additionally, the report proposes **creating an emergency vaccine bank**, which would source vaccines domestically or internationally, ensuring rapid access during health emergencies.
  - **Network for early warning**
    - The report advocates for creating an epidemiology forecasting and modeling network to predict the transmission dynamics of infectious diseases and assess the effectiveness of countermeasures like vaccines in various scenarios.

- It also calls for a network of Centres of Excellence (CoE) focused on researching priority pathogens.
- These CoEs would work on diagnostics, therapeutics, and vaccines for priority pathogens identified by the World Health Organization, developing them in advance to ensure preparedness for future public health emergencies.

- **Independent drug regulator**
  - The report stresses the need for India to establish a robust clinical trial network recognized by international regulatory authorities to ensure rapid access to innovative medical products during public health emergencies.
  - It highlights the importance of **making the Central Drugs Standards Control Organisation (CDSCO) an independent body with special powers.**
  - Currently, the CDSCO, responsible for regulating drug import, sale, manufacture, and distribution, operates under the Ministry of Health, but greater autonomy is recommended for faster and more efficient responses in crises.
- **Other recommendations**
  - **100-Day Preparedness Strategy**: The experts realised that responding in the **first 100 days of an outbreak is crucial for effective management**. Hence, it emphasizes a rapid response system to be fully operational within the first 100 days of an outbreak.
  - **Public Health Workforce**: Expanding and enhancing the public health workforce, especially in rural and underserved areas.
  - **Supply Chain Resilience**: Developing a robust supply chain for essential medical supplies, vaccines, and personal protective equipment (PPE).
  - **Digital Infrastructure and Data Sharing**: Leveraging technology and data-sharing frameworks to ensure transparency, coordination, and swift action.

3. 10 years of Swachh Bharat Mission
GS 2 (Governance)

- **Why in News:**
  - The Swachh Bharat Mission (SBM), launched by Prime Minister Narendra Modi in 2014, marks its 10th anniversary on October 2, 2024.
  - The campaign aimed to fulfill Mahatma Gandhi's vision of a clean India, with the goal of achieving this by his 150th birth anniversary in 2019

10 years of Swachh Bharat Mission: Its aims and status on key targets

DAMINI NATH
NEW DELHI, OCTOBER 1

SWACHH BHARAT Mission, one of the first programmes announced by Prime Minister Narendra Modi after he took office in 2014, completes 10 years on October 2. While announcing the "Clean India campaign", the PM had said: "A clean India would be the best tribute India could pay to Mahatma Gandhi on his 150th birth anniversary in 2019."

The mission was divided into SBM-Gramin for villages, and SBM-Urban for cities, executed by the Ministry of Drinking Water and Sanitation, and the Ministry of Housing and Urban Affairs respectively.

SBM's focus areas were building individual toilets, community toilets, solid waste management, and leading awareness campaigns aimed at behavioural changes.

Targets of SBM

The PM announced that the SBM's main goal was to make India "Open defecation-free" (ODF) by October 2, 2019, for which crores of household and community toilets had to be constructed. The definition of ODF under the mission is as follows: "A city/ward can be notified/ declared as an ODF city/ ODF ward if, at any point of the day, not a single person is found defecating in the open."

The aim was to equip all households with individual toilets, ensure communities have cluster toilets, and that school and anganwadi toilets have waste management systems. Solid waste includes organic and inorganic materials (kitchen waste, plastics, metals, etc.), while liquid waste management deals with wastewater that is no longer fit for human consumption.

To achieve this, the government's assistance was increased from Rs 10,000 per toilet (under the Nirmal Bharat Abhiyan of the previous UPA government) to Rs 12,000 under SBM. When the mission completed five years in 2021, the government launched SBM 2.0, with a focus on garbage-free cities, faecal sludge, plastic waste, and greywater management.

Achievements so far

- With over 10 crore toilets constructed, PM Modi declared 0 lakh villages open-defecation-free on October 2, 2019. Urban India, except for cities in West Bengal, was announced as ODF in December 2019 by the Housing and Urban Affairs Ministry.
- 66 lakh individual toilets were constructed against the target of 59 lakh, the Ministry said. The Centre also said it released Rs 57,469.22 crore to states and UTs for SBM-G between 2014-2015 and 2018-2019. The Budget for SBM-U was Rs 62,009 crore.
- 5.54 lakh villages and 3,913 cities have been declared as ODF+ under the second iterations of SBM-G and SBM-U from 2020-21. ODF+ means that besides being ODF, these villages have arrangements for liquid waste management as well.
- For SBM-G 2.0, the Cabinet had cleared spending of Rs 1.40 lakh crore from 2020-21 to 2024-2025, of which Rs 52,497 crore was from the Drinking Water and Sanitation Department. SBM-U 2.0 was approved in 2021, with allocation of Rs 1.41 lakh crore.
- All 2,400 legacy landfill sites were to be cleared by 2025-2026. So far, only 30% of the target has been achieved in terms of the area to be cleared, while 45% of the waste remediation goal has been met. The SBM-U dashboard shows 97% of municipal wards have door-to-door collection of waste and 91% of them have 100% segregation at source.

Impact of the mission

In 2018, the World Health Organisation estimated that 3 lakh deaths due to diarrhoea and protein-energy malnutrition would be averted due to the SBM-G from 2014 to October 2019. "Unsafe sanitation caused an estimated 199 million cases of diarrhoea annually before the start of the SBM in 2014. These have been gradually reducing, and will almost be eliminated when universal use of safe sanitation facilities is achieved by October 2019," the WHO said.

A recent study has found a link between reduction in infant deaths and SBM. The report, published in *Nature* on September 2, said the mission may have led to 60,000 to 70,000 fewer infant deaths annually from 2014 to 2020. The study noted that there had been a decline in infant mortality from 2005 to 2020, but the decrease was more after 2015.

According to the 2011 Census, 53.1% of households, both rural and urban, lacked any kind of latrines. How much this number has changed remains to be seen – Census 2021 has been delayed.

TELLING NUMBERS

- **Swachh Bharat Mission (SBM)**
  - **About**
    - SBM was launched in 2014 to achieve an open defecation free (ODF) India in five years.
    - This **progressed the country towards SDG 6.2**, which aims for adequate and equitable sanitation access for all, especially for women and girls.
    - The mission sought to transform sanitation and waste management across India through both infrastructure development and cultural shifts toward cleanliness.
  - **Two parts of the mission**
    - **SBM-Gramin** for rural areas, managed by the Ministry of Drinking Water and Sanitation, and
    - **SBM-Urban** for cities, overseen by the Ministry of Housing and Urban Affairs.
  - **Focus area**
    - **Building individual household toilets**: To eliminate open defecation by providing toilets to all households.
    - **Creating community and public toilets**: Especially in high-traffic or underserved areas where individual toilets may not be feasible.

        - **Solid waste management**: Efficiently handling waste collection, segregation, and disposal to improve cleanliness.
        - **Awareness and behavioral change campaigns**: Promoting the importance of cleanliness and hygiene to encourage lasting changes in public behavior.
    - **Targets of SBM**
        - SBM was launched with the goal of eliminating open defecation by constructing millions of household and community toilets.
        - The ODF definition required that no one in a city or ward is found defecating in the open at any time of day.
        - The mission focused on providing every household with individual toilets, cluster toilets for communities, and proper waste management systems for school and anganwadi toilets.
        - To support this, the government increased assistance from Rs 10,000 (under the previous Nirmal Bharat Abhiyan) to Rs 12,000 per toilet.
        - After the mission's initial five years, **SBM 2.0 was launched in 2021**, shifting the focus to creating garbage-free cities and addressing faecal sludge, plastic waste, and greywater management for enhanced urban sanitation.
- **Achievements of Swachh Bharat Mission**
    - **Toilet Construction and ODF Declarations**
        - **Toilets Built**: Over **10 crore toilets** have been constructed under the mission.
        - **ODF Villages**: On October 2, 2019, **6 lakh villages** were declared open defecation-free (ODF).
        - **Urban ODF Status**: By December 2019, urban India, except for cities in West Bengal, was also declared ODF by the Ministry of Housing and Urban Affairs.
    - **Targets and Financial Support**
        - **Individual Toilets**: A total of **66 lakh individual toilets** were constructed, surpassing the target of **59 lakh**.
        - **Financial Assistance**: The Centre released **Rs 57,469.22 crore** to states and Union Territories for SBM-Gramin from 2014-2015 to 2018-2019. The budget for SBM-Urban was **Rs 62,009 crore**.
    - **ODF+ Achievements**
        - **ODF+ Declarations**: **5.54 lakh villages** and **3,913 cities** have been declared ODF+ under SBM-Gramin 2.0 and SBM-Urban 2.0 since 2020-21.
        - ODF+ status indicates these areas also have arrangements for liquid waste management
    - **Future Plans and Allocations**
        - **SBM-G 2.0 Budget**: The Cabinet approved spending of **Rs 1.40 lakh crore** for SBM-Gramin 2.0 from 2020-21 to 2024-2025, with **Rs 52,497 crore** allocated from the Drinking Water and Sanitation Department.
        - **SBM-U 2.0 Approval**: SBM-Urban 2.0 was approved in 2021 with an allocation of **Rs 1.41 lakh crore**.
    - **Landfill Remediation Progress**
        - **Legacy Landfills**: The goal is to clear all **2,400 legacy landfills** in cities by 2025-2026.
        - So far, **30%** of the area targeted for clearing has been achieved, and **41%** of the waste remediation goal has been met
        - **Waste Management Statistics**: According to the SBM-U dashboard, **97%** of municipal wards have door-to-door waste collection, and **90%** have achieved **100% segregation at source**.
- **Impact of Swachh Bharat Mission on Health**
    - **Deaths Averted**
        - WHO estimated that from 2014 to October 2019, the Swachh Bharat Mission-Gramin (SBM-G) could avert approximately **3 lakh deaths** related to diarrhoea and protein-energy malnutrition.
        - Prior to SBM, **unsafe sanitation** was responsible for an estimated **199 million cases of diarrhoea annually**, a figure that has been gradually decreasing with the implementation of the mission.
    - **Link to Infant Mortality Reduction**
        - A recent study published in Nature found a significant link between the SBM and a reduction in infant deaths.

        - The research indicated that the mission may have contributed to **60,000 to 70,000 fewer infant deaths** each year from 2014 to 2020.
        - Although there was a general decline in infant mortality from 2003 to 2020, the reduction accelerated after 2015, coinciding with the SBM's initiatives.
    - **Toilet Access**
        - According to the **2011 Census**, **53.1%** of households (rural and urban) lacked any form of toilets.
        - The extent of improvement in toilet access since then is yet to be assessed, as the **Census 2021** has been delayed.

- **Criticism of SBM**
    - **Quality of Construction**
        - **Substandard Toilets**: Many toilets constructed under the SBM have been reported to be of poor quality, lacking proper sanitation facilities, and failing to meet the required standards.
        - **Non-Functional Toilets**: Some toilets were built but remain unused or are not functional due to maintenance issues or inadequate water supply.
    - **Data Discrepancies**
        - **Inflated Numbers**: Critics have pointed out discrepancies in the reporting of ODF declarations and the actual ground situation. Some villages and cities declared as ODF may not meet the criteria for such status.
        - **Verification Issues**: The verification process for ODF status has been questioned, with claims that local officials may have exaggerated achievements to meet targets.
    - **Focus on Infrastructure Over Behavior Change**
        - **Lack of Awareness Campaigns**: While the mission emphasizes building toilets, critics argue that it has not adequately focused on creating awareness and promoting behavioral changes regarding sanitation practices.
        - **Cultural Resistance**: In many areas, social norms and cultural practices regarding sanitation persist, and merely building toilets does not change people's behavior regarding their use.
    - **Implementation Challenges**
        - **Insufficient Monitoring**: There have been calls for better monitoring and evaluation of SBM initiatives at the ground level to ensure effectiveness.
        - **Local Government Capacity**: Some local bodies may lack the capacity or resources to implement the mission effectively, leading to challenges in execution.
    - **Exclusion of Marginalized Groups**
        - **Accessibility Issues**: Reports indicate that marginalized communities, including Scheduled Castes and Scheduled Tribes, often face barriers to accessing sanitation facilities, thus undermining the mission's objectives of inclusivity.
        - **Gender Concerns**: The mission has been criticized for not adequately addressing the specific sanitation needs of women and girls, such as menstrual hygiene management.
    - **Environmental Concerns**
        - **Solid Waste Management**: While the mission addresses toilet construction, critics argue that it has not effectively dealt with solid waste management issues, which continue to pose significant environmental challenges.
        - **Sustainability Issues**: Some critics highlight that without sustainable practices, such as proper waste disposal and treatment systems, the mission's long-term success may be jeopardized.
    - **Delayed Census and Lack of Data**
        - **Impact Measurement**: The delay in the Census 2021 has hindered the ability to measure the true impact of the SBM on sanitation coverage and improvements, leading to concerns over the reliability of available data.

4. Reforming the Insolvency and Bankruptcy Code (IBC)
GS 3 (Economy)

- **Why in News:** According to the G20 Sherpa and former CEO of Niti Aayog (Amitabh Kant), the Insolvency and Bankruptcy Code (IBC) is in need of second-generation reforms to acknowledge concerns regarding the present functioning of the Code.

'MODEL SIMILAR TO PASSPORT SEVA KENDRAS COULD WORK'

Allow court management by pvt players to reduce insolvency delays: Kant

AGGAM WALIA
NEW DELHI, OCTOBER 1

INDIA SHOULD consider outsourcing court management for insolvency proceedings to private players to cut delays and boost creditor recovery, former NITI Aayog CEO and G20 Sherpa Amitabh Kant said Monday.

Speaking at the Insolvency and Bankruptcy Board of India's (IBBI) annual meeting, Kant called for a second generation of reforms to strengthen the Insolvency and Bankruptcy Code (IBC), 2016. He added that the government is considering amendments to the IBC after a comprehensive review was undertaken last year.

In addition to bringing in private players to "minimise judicial bandwidth on administrative matters," Kant said proposed amendments to the IBC could also clarify key legal principles and enable the implementation of a cross-border insolvency framework.

"We must acknowledge some concerns regarding the present functioning of the IBC, indicating a need for a second generation of reforms. Analysis of IBBI's own data shows that insolvency resolutions at the National Company Law Tribunal (NCLT) averaged 716 days in FY24, up from 654 days in FY23. More concerning is the average time taken for the admission of cases, which stood at 468 days in FY21 and increased to 650 days in FY22," Kant said.

He noted there is an inverse relationship between the time taken for resolution and the value recovered, highlighting that delays are eroding creditor recoveries. He added the rate of recovery for creditors as a percentage of admitted claims fell to 27 per cent in FY24 from 36 per cent in FY23. As a solution, Kant proposed outsourcing court management to private players, like in the case of Passport Seva Kendras that are operated by Tata Consultancy Services Ltd.

"It is often said that justice delayed is justice denied. We need a breakthrough idea to fix this and there is a need for tribunal process re-engineering. It is essential to minimise judicial bandwidth on administrative matters while opening non-court functions to innovative non-sovereign or private players to deploy technology for improved court management," he said.

"For example, the privatisation of Passport Seva Kendras has resulted in a seamless process and similar models could work for court processes… With investments in private capital and future-ready innovation, judicial process re-engineering could enhance the administration of justice in India," Kant added.

He also said that recent NCLT rulings under the IBC "have deviated from the established position", especially with respect to the supremacy of the commercial wisdom of the Committee of Creditors (CoC), the established waterfall of dues with the state's dues being subordinated, and the requirement of NCLT to admit a petition when a financial debt exists without exercising any measure of discretion. He said proposed amendments should work towards "clarifying ambiguity on key legal principles".

Kant also stressed the need for implementing a cross-border insolvency framework as Indian companies enter global value chains.

At IBBI's 8th annual day, chairperson Ravi Mital also addressed the issue of delays and substantial haircuts faced by creditors. "We did a study in our office and found that when cases are admitted into IBC, they have already lost more than 50 per cent of their value. Now, IBC is not responsible if the creditors bring the cases late. IBC is responsible once a case is brought before IBC, and if you look at recovery as a percentage of fair value, we recover 84 per cent," he said. Mital also said time is taken under the IBC because it is a creditor-led model as opposed to a debtor–led model, because of which "the debtor tries his best to ensure that the case is not admitted".

As of June 30, 7,813 corporate insolvency proceedings were admitted under the IBC, of which 2,547 cases (33 per cent) ended in liquidation, 1,005 cases (13 per cent) were resolved, 1973 cases (25 per cent) are ongoing, and the remaining were either withdrawn or closed.

FULL REPORT ON www.indianexpress.com

G20 Sherpa Amitabh Kant at the Insolvency and Bankruptcy Board of India's annual meeting in New Delhi. @amitabhk87

- **What is the Insolvency and Bankruptcy Code (IBC)?**
  - **Insolvency vs Bankruptcy:** While insolvency results from an inability to pay debts due to a lack of assets, bankruptcy occurs when an application is presented to an authority declaring insolvency and requesting to be declared bankrupt, which will last until discharge.
  - **About the IBC 2016:**
    - It is the bankruptcy law of India which seeks to **consolidate the existing framework** by creating a single law for insolvency and bankruptcy.
    - It is **a one stop solution** for resolving insolvencies which previously was a long process that did not offer an economically viable arrangement.
    - It **aims to protect the interests of small investors** and make the process of doing business less cumbersome.
  - **About IBBI:**
    - **It is the regulator for overseeing insolvency proceedings** and entities like Insolvency Professional Agencies (IPA), Insolvency Professionals (IP) and Information Utilities (IU) in India.
    - **It was established on 1 October 2016** and given statutory powers through the IBC 2016.
    - It functions under the **Ministry of Corporate Affairs** and **covers** Individuals, Companies, Limited Liability Partnerships and Partnership firms.
- **What is the Process Followed under the IBC?**
  - When a corporate debtor (CD) or a company, which has taken loans to run its business, defaults on its loan repayment, either the creditor or the debtor can apply for the initiation of a CIRP.
  - CIRP stands for **Corporate Insolvency Resolution Process (CIRP)**, which comes under Section 6 of the IBC.
  - Earlier, the minimum amount of default after which the creditor or debtor could apply for insolvency was ₹1 lakh.
  - But, considering the stress on companies amid the pandemic, the government increased **the minimum amount to ₹1 crore**.
  - **To apply for insolvency**, one has to approach a stipulated adjudicating authority (**AA**) under the IBC. The various benches of the National Company Law Tribunal (**NCLT**) across India are the designated AAs.
  - **The Tribunal has 14 days to admit or reject** the application or has to provide a reason if the admission is delayed.
  - The CIRP or resolution process begins once an application is admitted by the AA. The amended mandatory deadline for the completion of the resolution process is **330 days.**

- **Issues Faced in the Implementation of the IBC:**
  - **Delay in resolving bankruptcy cases:**
    - The IBC aims to resolve bankruptcy cases within a set time frame, but the average time taken to complete the process is longer than the stipulated 330 days.
    - Time taken for insolvency resolutions at the NCLT averaged **716 days in FY24**, up from 654 days in FY23.
  - **Low approval rate:**
    - Only a small percentage of cases end with approved resolution plans. Average time taken for the admission of cases increased to **650 days in FY22** from 468 days in FY21.
    - Even after approval, final resolution plans are often challenged, which can lead to further delays.
  - **High number of liquidations:** A large number of cases end up in liquidation, which goes against the IBC's goal of resolving bankruptcy.
  - **Low recovery rates:**
    - There is an inverse relationship between the time taken for resolution and the value recovered, highlighting that delays are eroding creditor recoveries.
    - The rate of recovery for creditors as a percentage of admitted claims **fell to 27% in FY24** from 36% in FY23.
  - **Lack of operational NCLT benches:** Many NCLT benches are not fully operational due to a lack of infrastructure and support staff.
  - **Issues with valuers:** Some stakeholders have raised concerns about the credibility of valuers enlisted as registered valuers by IBBI.
  - **Ambiguity in definitions:** The definitions of liquidation value and other concepts are ambiguous, and court judgments contradict each other.
- **First Generation Reforms to Strengthen IBC:**
  - Ever since IBC was enacted and IBBI was formed, consistent efforts were made to make it a potent debt resolution tool for bringing cultural shift towards loan repayments.
  - **Several amendments** were made to make it more effective as the law experienced hiccups on its way to implement it.
  - **For example,** the motive behind introducing the IBBI (Insolvency Resolution Process for Corporate Persons) (2nd Amendment) Regulations 2023 is to facilitate the smooth functioning of the CIRP.
- **Way Ahead - Suggestions Given by Amitabh Kant to Strengthen IBC:**
  - Speaking at the IBBI's annual meeting, Kant called for a **second generation of reforms** to strengthen the IBC 2016.
  - India must consider –
    - **Outsourcing court management** for insolvency proceedings to private players (like in the case of **Passport Seva Kendras** that are operated by TCS Ltd) to cut delays and boost creditor recovery.
    - **Amending the IBC** to clarify key legal principles and enable the implementation of a cross-border insolvency framework.

5. Five-Hundred Aperture Spherical Telescope (FAST)
GS 3 (Science and Tech)

- **Why in News:** China has kicked off a second phase of construction to enhance the capabilities of the Five-Hundred Aperture Spherical Telescope (FAST).
- **About Five-Hundred Aperture Spherical Telescope (FAST):**
  - It is a radio telescope in China's Guizhou Province.
  - It is the world's largest and most sensitive radio telescope, with a receiving area equivalent to 30 football fields.
  - It measures 500 meters in diameter.
  - **Scientific Goals:**
    - Detect neutral hydrogen at the edge of the universe; reconstruct the images of the early universe;

- Discover pulsars, establish a pulsar timing array, and participate in pulsar navigation and gravitational wave detection in the future;
- Join the International Very-Long-Baseline Interferometry Network to obtain hyperfine structures of celestial bodies;
- Perform high-resolution radio spectral survey;
- Detect weak space signals;
- Participate in the search for extraterrestrial intelligence.

- FAST uses a data system developed at ICRAR (International Center for Radio Astronomy) in Perth, Australia, and at ESO (European Southern Observatory) to manage the huge amounts of data it generates.

6. National Mission for Edible Oils - Oil Palm (NMEO-OP)
GS 2 (Governance)

- **Why in News:** The second day of a National Level Multi-Stakeholder Consultative Workshop on Sustainable Oil Palm Cultivation under the National Mission on Edible Oils-Oil Palm (NMEO-OP) was held recently.
- **About National Mission for Edible Oils - Oil Palm (NMEO-OP):**
  - Launched by the Government of India in August 2021, NMEO-OP targets a substantial increase in oil palm cultivation and crude palm oil production.
  - It is a Centrally Sponsored Scheme with a special focus on the Northeast region and the Andaman and Nicobar Islands, with a focus on increasing the area and productivity of oilseeds and Oil Palm.
  - **Scheme Outlay:** A financial outlay of Rs. 11,040 crores have been made for the scheme, out of which Rs. 8,844 crore is the Government of India share and Rs. 2,196 crore is the State share, and this includes the viability gap funding also.
  - **Targets:**
    - To increase the area of oil palm to 10 lakh hectares from 3.5 lakh ha during 2019-20 by 2025-26 (an additional 6.50 lakh ha).
    - To increase the Crude Palm Oil production from 0.27 lakh tonnes during 2019-20 to 11.20 lakh tonnes by 2025-26.
    - Increase consumer awareness to maintain a consumption level of 19.00 kg/person/annum till 2025-26.
  - The State Department of Agriculture, State Department of Horticulture, Central University, ICAR-Institutions, CDDs, SAUs, KVKs, Central Agencies/Cooperatives, Oil palm processors/ Associations, DD Kisan, AIR, DD, TV channels will be the implementing stakeholders of the NMEO-Oil palm.
  - **Features**: The salient features of NMEO-OP include assistance for planting material, inputs for intercropping up to a gestation period of 4 years and for maintenance, the establishment of seed gardens, nurseries, micro irrigation, bore well/pump set/water harvesting structure, vermicompost units, solar pumps, harvesting tools, custom hiring centre cum harvester Groups, farmers and officers training, and for replanting of old oil palm gardens, etc.

7. Anna DARPAN Project
GS 2 (Governance)

- **Why in News:** Recently, the Food Corporation of India (FCI) has selected Coforge Limited as the System Integrator (SI) for its digital transformation project, Anna DARPAN.
- **About Anna DARPAN Project:**
  - The project aims to streamline and enhance the supply chain management system at various levels.
  - This system will be designed to improve efficiency and productivity by creating an interactive and user-friendly UI design.

- It will also enable data-driven decision-making by leveraging data analytics to support strategic and operational decisions. The system will be integrated with internal and external systems, and a mobile-first approach will be prioritized to ensure that it is accessible anytime, anywhere.
- As part of the project, Coforge will be responsible for the end-to-end design, development, implementation, and maintenance of the Anna DARPAN system.
- The development team will leverage the latest technology and a state-of-the-art IT environment to build a cloud-based platform for hosting the system.
- It will be powered by a service mesh architecture, which will facilitate seamless communication among microservices.
- In the requirement gathering, analysis, and documentation phase of the project, Coforge will have extensive visibility into FCI's operations, including a deep understanding of its requirements, existing process flows, and potential integration opportunities with current FCI-related applications.

8. Jal Hi AMRIT Programme
GS 2 (Governance)

- **Why in News:** Recently, the Union Minister for Housing and Urban Affairs said that the government has introduced the Jal Hi AMRIT scheme in its first 100 days.
- **About Jal Hi AMRIT Programme:**
  - It was launched under the AMRUT 2.0 scheme.
  - Under this initiative, it is envisaged to incentivise State & UTs to manage the used water (sewage) treatment plants (UWTPs/ STPs) efficiently to ensure recyclable good quality treated water, meeting environmental standards, on a sustained basis.
  - The purpose of the exercise is to build competition among the cities, develop capacities and incentivise them to attain the best quality of used treated water at the treatment facilities.
  - The main focus is thus on capacity building & incentivizing qualitative improvements in the treated discharge effluent.
  - A mid-course assessment and water quality testing will be conducted, culminating in a final assessment & award of Clean Water Credits in terms of a Star-rating (between 3 stars to 5 stars) certificate valid for six months.
- **Key facts about AMRUT 2.0 scheme**
  - It was launched for a period of five years, from the financial year 2021-22 to the financial year 2025-26.
  - It is designed to provide universal coverage of water supply through functional taps to all households in all the statutory towns in the country and coverage of sewerage/septage management in 500 cities covered in the first phase of the AMRUT scheme.
  - AMRUT 2.0 will promote a circular economy of water by developing the City Water Balance Plan (CWBP) for each city, focusing on recycling/reusing treated sewage, rejuvenating water bodies, and water conservation.

MCQ Current Affairs
2nd Oct, 2024

1. The Kuno National Park lies in which one of the following states?

a) Karnataka
b) Madhya Pradesh
c) Assam
d) Rajasthan

2. Five-Hundred Aperture Spherical Telescope (FAST), the world's largest and most sensitive radio telescope, is located in which one of the following countries?

a) Chile
b) USA
c) Italy
d) China

3. Consider the following statements regarding the National Mission for Edible Oils - Oil Palm (NMEO-OP):

A. It is a Centrally Sponsored Scheme with a special focus on the North-east region and the Andaman and Nicobar Islands.
B. It targets a substantial increase in oil palm cultivation and crude palm oil production.

Which of the statements given above is/are correct?

a) A only
b) B only
c) A and B
d) Neither of two

4. Consider the following statements regarding Swallowtail Butterflies:

A. They act as an indicator species in environment.
B. They are found across all the continents except the Antarctica.

Which of the statements given above is/are correct?

a) A only
b) B only
c) A and B
d) Neither of two

5. Anna DARPAN Project, recently in news, is an initiative of:

a) Geological Survey of India
b) Reserve Bank of India
c) NITI Aayog
d) Food Corporation of India

Answers Current Affairs
2nd Oct, 2024

1. b
2. d
3. c
4. a
5. d