



DAILY CURRENT AFFAIRS 16-04-2024

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Fort Kochi

Syllabus: GS-1; Modern Indian History

Context

- *Fort Kochi beach, a major tourism destination- on its way of Conservation*



About

- **Fort Emmanuel, also known as Fort Manuel, is a ruined fort located at Fort Kochi Beach in Kochi, Kerala.**
- *It was built in 1503 and reinforced in 1538.*
- *The fort is a symbol of the alliance between the **Maharajah of Kochi and the Monarch of Portugal- Manuel I, after whom it was named.***
- *The fort was a bastion of the Portuguese and helped strengthen their occupation of the area. Fort Kochi remained in Portuguese possession until 1683, when the Dutch colonial troops captured the territory and destroyed the Portuguese institutions.*
- *Fort Kochi is a neighborhood of Cochin (Kochi) city in Kerala, India.*
- *It takes its name from the Fort Manuel of Cochin, the **first European fort on Indian soil.***

Credit-Deposit Ratio

Syllabus: GS-3; Economy-Banking

Context

- **The credit-deposit (CD) ratio of banks has been at around 80 percent, reaching a decadal high, a March 2024 report by CareEdge showed.**
- **The ratio shows how much of the money banks have raised as deposits has been lent out.**
- **A high CD ratio indicates liquidity and credit risks for banks.**

What is 'Currency Deposit Ratio'?

- **The currency deposit ratio shows the amount of currency that people hold as a proportion of aggregate deposits.**
- **An increase in cash deposit ratio leads to a decrease in money multiplier.**
- **An increase in deposit rates will induce depositors to deposit more, thereby leading to a decrease in Cash to Aggregate Deposit ratio.**
- **This will in turn lead to a rise in Money Multiplier.**

ISROs Zero Orbital Debris

Syllabus: GS-3; Science and Tech

Context

- **The Indian Space Research Organisation (ISRO) has said its PSLV-C58/XPoSat mission has practically left zero debris in earth's orbit.**

What is POEM?

- **Developed by the Vikram Sarabhai Space Centre (VSSC) as an inexpensive space platform, POEM uses the spent fourth stage of a PSLV rocket as an orbital platform.**
- **POEM is powered by solar panels mounted on the fuel tank of the rocket's fourth stage and a lithium-ion (Li-ion) battery.**
- **It has a dedicated navigation, guidance, and control (NGC) system to stabilise its altitude along with helium control thrusters.**

- The NGC system has four Sun sensors, a magnetometer, and gyroscopes, and talks to ISRO's NavIC satellite constellation for navigation.
- POEM also has a telecommand system to communicate with the ground station.

Why is this significant?

- With the rise in the number of satellites in orbit around the earth, space debris has become a pressing issue.
- Space debris in the **low earth orbit (LEO)** mainly comprises pieces of spacecraft, rockets, and defunct satellites, and the fragments of objects that have deteriorated explosively as a result of anti-satellite missile tests.
- This debris often flies around at high speeds of up to 27,000 kilometres per hour.
- Due to their sheer volume and momentum, **they pose a risk to several space assets.**
- It includes satellites tracking intelligence data, encrypted communication, and navigation. According to ISRO's Space Situational Assessment report 2022, the world placed 2,533 objects in space in 179 launches in 2022, up from 1860 objects in 135 launches in 2021.
- Debris also exists, but in smaller volumes, in the **geosynchronous orbit (GEO)**, which is 36,000 km above the earth's surface.
- Currently, there are 7,000 operational satellites orbiting the earth at different altitudes along with millions of pieces of space debris.

How are space agencies dealing with debris?

- Currently, there are **no international space laws pertaining to LEO debris.**
- However, most space-exploring nations abide by the Space Debris Mitigation Guidelines 2002 specified by the **Inter-Agency Space Debris Coordination Committee (IADC)**, which the U.N. endorsed in 2007.
- The guidelines outline methods to limit accidental collisions in orbit, break-ups during operations, intentional destruction, and post-mission break-ups.
- They also advise against the long-term presence of spacecraft and launch vehicle orbital stages in LEO and limit their interference in the GEO region.
- **NASA had instituted its Orbital Debris Program in 1979** to find ways to create less orbital debris and design equipment to track and remove existing debris.
- Similarly, the **European Space Agency (ESA) has adopted a 'Zero Debris charter,'** which includes multiple ways to mitigate space debris.
- It has also called for zero space debris by 2030 and seeks that other agencies adopt it as well.
- Japan also has a project, called the **Commercial Removal of Debris Demonstration (CRD2)**, to tackle space junk.

How invasive species threaten natural ecosystems

Syllabus: GS-3; Environment and Ecology

Context

- *In a bid to manage the teeming population of **chital (spotted deer)** in **Ross Island (officially known as the Netaji Subhash Chandra Bose Island)**, the Andaman and Nicobar Islands administration recently sought help from the **Wildlife Institute of India**.*



Background

- **Chital, native to mainland India**, were introduced to the tiny island (0.3 sq km small) by the British in the early 20th century.
- Having no natural predators or competitors, and being **good swimmers**, chital swiftly spread across the Andamans.
- Over the past two decades, studies have examined the seemingly innocuous herbivores' deleterious impact on the islands' native flora and fauna — bringing to spotlight the topic of invasive species, and the threat they pose to endemic ecosystems.

What are invasive alien species?

- **The Convention on Biological Diversity (CBD)** defines *invasive alien species (IAS)* as “species whose introduction and/or spread outside their natural past or present **distribution threatens biological diversity**”.
- These include **animals, plants, fungi, and even microorganisms**, and can influence all kinds of ecosystems.
- In India, the legal definition of IAS under the **Wildlife Protection Act, 1972** (amended in 2022), is narrower.
- They are defined as “species of animal or plant which is not native to India, and whose introduction or spread may threaten or adversely impact wildlife or its habitat.”

What are some examples of invasive wildlife in India?

- The list of invasive wildlife in India is dominated by certain species of fish such as the **African catfish, Nile tilapia, red-bellied piranha, and alligator gar**, and turtle species such as the **red-eared slider**.

How do IAS impact native flora and fauna?

- The invasive species act as **disruptors in the food chain** and disturb the balance of the ecosystem.
- In habitats where there is no competition, invasive species can dominate the entire ecosystem.

Man-Animal conflict

Syllabus: GS3; Environment and Ecology

Context

- One person on average gets killed in human-animal conflict every week in Karnataka, reveals official data.
- According to forest department, such conflicts are mostly reported in the southern part of the state starting from **Bannerghatta, Chamarajanagara, Mysuru, Kodagu and Hassan to Chikkamagaluru belt**.
- More than 600 people have lost their lives due to attacks by wild animals, majority of them being from elephants, over the last decade, officials said.

More about the news



Man - Animal conflict

- *It relates to the **interaction between wild animals and humans, as well as the negative consequences for people, their resources, wild animals, and their habitats.***
- *Human-wildlife conflict has reached alarming levels in states across India.*

Reasons for Man – Animal conflict

- **Heavily used linear infrastructure**
- **Loss of corridors and habitats**
- **Fragmentation of forests**
- *The fodder and forage in the forests are also declining due to livestock grazing and unsustainable harvest of non-timber forest products.*
- **Growing populations of human or animal overlap** *with established wildlife or human territory, resulting in a loss of resources.*
- *Habitat and corridor fragmentation as a result of legal and unlawful land use changes, such as mining clearances or agricultural encroachment.*
- **Changing cropping patterns** *attract wild animals to agriculture.*
- *Habitat destruction as a result of the spread of invasive alien species, etc.*

Solutions

- **Reducing open defecation, radio-collaring tigers, translocating wild cats and immunocontraception of cow elephants staying in coffee estates.**
- *The corridors and habitats must be restored and forests are protected against grazing and fire, even more stringent barriers will not be able to contain wild animals within the reserves.*

- *Interventions like **crop insurances** need to be assessed for their viability and supported by policies that make it feasible for such schemes to be implemented at volume*
- *Better enforcement and a **pragmatic policy**: To address the issue will lessen incidences of man-animal conflict.*
- ***Awareness campaigns**: To educate, guide, and advise the general public about man-animal conflict, including information dissemination via various types of media.*
- ***Skill-development initiatives**: People living in and around the forest would benefit from reduced pressures on both agricultural and forest land.*
- *There is a need to improve the habitat inside the forest, the quality of forest, remove the weeds, the water levels by moisture conservation works.*
- *Strengthening the **anti-poaching camps** in forest area or controlling forest fire.*

Allocation of funds under Karnataka Budget – 2024-25

- *To address man-animal conflict, Rs 100 crore was provided in the previous budget (2023-24) for construction of railway barricades and around 78 km of railway barricades were constructed.*
- *In the current year (2024-25) also, priority will be given to construct barricades.*
- *The total budget allotted to wildlife wing of the forest department for 2024-25 is approximately Rs 151 crore which is for all the wildlife related works, including Rs 60 crore alone for construction of railway barricades, one of the major preventive measures to combat human-elephant conflict.*
- *Other measures are outlined towards protecting people residing in the areas bordering forests and crops from wild animals, while protecting wildlife.*

Way forward

- *The way forward needs to be **data driven, community centric** and based on a much more thorough understanding of conflict dynamics.*
- *Understanding of elephants thus far has largely been restricted to population estimates and some understanding of biology.*
- *There is a wealth of information to be uncovered with respect to human-elephant interactions that could form the basis of management in years to come.*