Prelim Bits 22-12-2022 | UPSC Daily Current Affairs

Camels in India

The number of camels shows a decline of 37% from the 2019 livestock census.

- The number of camels has come down from 4 lakh during the livestock census of 2012 to 2.52 lakh in the 2019 livestock census.
- Around 84% of camels in India are located in Rajasthan and around 11% are located in Gujarat.

Reasons for decline of camels in India

- Decline in the grazing land is one of the reasons for the decline in the number of camels also.
- The use of camel in agriculture and transport sectors have also come down in Rajasthan
- Dependency on camels for transportation in most of the interior areas are reducing gradually and people prefer vehicle than camel for transportation.
- Providing fodder to camels due to restrictions in forest areas made it difficult for camel rearers.

Conservation Efforts

- Rajasthan government has declared camel as State animal in 2014.
- Rajasthan has enacted and enforced the Rajasthan Camel (Prohibition of Slaughter And Regulation of Temporary Migration or Export) Act, 2015.
- Under the sub-mission of National livestock Mission (NLM), a component named 'Livestock Insurance' has been included, the benefit of which can be taken by the Camel breeders.
- The Government of India has established National Research Centre on Camel (NRCC) in 1984 under the aegis of ICAR in Bikaner, Rajasthan to promote research and development on camels.

Camel Varieties in India

- **Dromedary** - The single-humped Dromedarian (Camelus dromedarius) camel is found in the hot deserts.
- Dromedary is found in Rajasthan, Arabia and North Africa.
- The Dromedarian is longer-legged than the Bactrian camels.
- Kharai camel is a separate breed of camels known as "Swimming Camels" is also found in India.
- **Bactrian camel** - Bactrian double-humped camel is found in Nubra valley, Ladakh.
- The double-humps inhabit high-altitude, cold-desert regions.

- The double-hump camel is a native of Gobi desert, and is found on a vast expanse of cold-desert areas across Mongolia, China, Kazakhstan, Turkmenistan, Uzbekistan and parts of Afghanistan.
- Bactrian, has a shorter coat and smaller than dromedarian.
- The double-humped camel has more water-retaining capacity than the Dromedarian.

References

1. Business Line - Why camels' number declining in India?

Dokra Craft

Bengal village Lalbazar is becoming a hub for an ancient metalcraft, dokra.

- Dokra or dhokra is an ancient metalcraft popular in Bengal.
- Two places are famous in West Bengal for dokra work
    1. Bikna in Bankura
    2. Dariyapur in Bardhaman
- Dokra uses the traditional Indian technique of bronze casting using the 'lost wax' method, i.e. casting in moulds.
- The Dokra tradition's documented history is about 5,000 years old.
- Making dokra art is a difficult process and each figurine takes about a month to make.
- The processes involved may require up to 7 to 8 varieties of clay, apart from other raw material.



- **Process involved**
    - A clay model of the product to be made is created.
    - The mould is covered by wax on which another layer of clay is applied.
    - The molten brass is poured into this mould draining out the wax through a hole and the brass replaces it.
    - After the metal hardens, the outer clay is chipped away and the metal polished.
    - A lot of polishing and colouring is not done in traditional dokra.

Lalbazar and Lodha Tribe

- Lalbazar, also known as *Khwaabgram* ('village of dreams'), is located on the border with Jharkhand in West Bengal.
- The Lodha tribe members reside in this village.
- Lodhas are one of those tribes once outlawed by the British.
- They mostly earn a living as labourers and small farmers.

References

1. The Hindu - The glory of an ancient metalcraft

Gelbots

The new Gelbots crawls like 'the worm' when temperature changes can be significant in the

field of 'soft robotic'.

- Gelbots are made out of gelatin.
- The Gelbots are created by 3D printing and would be easy for mass production.
- Water-based gels (which feel like gummy bears) are believed to be extremely promising materials for soft robotics.

Soft robotics is a branch of robotics where the robots are fashioned out of organic and non-metallic materials.

- **Significance** - A gelbot is capable of moving without requiring an extra power source.
- The gelbot is able to move because of the way its shape, dimensions and patterning of gel are designed.
- **Principle behind** - The gels swell or shrink in response to temperature.
- This property can be strategically manipulated to move robots forward and backward on flat surfaces, or to have them crawl in certain directions with an undulating, wave-like motion.

Potential application areas

- Can be used to create smart structures.
- Can be used for moving on surfaces through the human body to deliver targeted medicines.
- They could also be deployed as marine robots, patrolling and monitoring the ocean's surface.
- Gelbots can be trained to crawl in response to variations in human biomarkers and biochemical.

References

1. The Hindu - What are 'Gelbots?'
2. Science Daily - Gelbots does 'the worm' when temperature changes

ECONARIO

"Plant," an art installation by Biersteker is displayed in the United the Nations Biodiversity Conference (COP15) in Montreal, Canada.

- The 5.5-meter (18-foot) tall artwork, ECONARIO is a large, data-driven robotic plant.
- ECONARIO currently displayed at Montreal Convention Centre, is built in a year from recycled steel.
- It withers or flourishes depending on countries' policy commitments.
- It is a tangible demonstration of how human actions will impact the world's threatened species.
- The plant feeds on data from the Biodiversity Intactness Index developed by the Natural History Museum.

- The Biodiversity Intactness Index (BII) summarises the change in ecological communities in response to human pressures.
- BII is an estimated percentage of the original number of species that remain, and their abundance in any given area, despite human impacts.
- As negotiations happen, the team behind BII input details like how many countries have committed to implement a cornerstone pledge of protecting 30% of lands and oceans by 2030.
- Then what that is going to mean for biodiversity in 20, 50 or 100 years can be predicted.

References

1. The Hindu - Robot plant grows

Gulf of Aden

High risk area warning on the Gulf of Eden and Somalian coast removed for seafarers from January 1, 2023.

- The Gulf of Aden is bordered by Yemen, Somalia, Djibouti and the Arabian Sea.
- The Bal-el-Mandeb strait connect the Gulf of Aden with the Red sea.
- The Gulf of Aden, the Somali coast and the Omani coast are high risk region for piracy.
- The Indian Navy commenced anti-piracy patrols in the Gulf of Aden from October 2008.
- The High risk area (HRA) for piracy was created in the Indian Ocean at the height of the Somali piracy threat in 2010.
- The region was last updated and reduced in size in 2019.

- The International Chamber of Commerce International Maritime Bureau and other industry associations jointly announced the removal of Indian Ocean HRA from January 1, 2023.
- **Significance of HRA removal** - The HRA warning was removed from the region due to a significant improvement in the piracy situation.
- The removal of HRA means seafarers don't need armed guards and will now be less stress on board although companies will remain vigilant.
- The Voluntary Reporting Area (VRA) administered by UKMTO has not changed.

The International Chamber of Commerce International Maritime Bureau tracks piracy attacks globally.

Significance of Gulf of Aden

- Nearly 13% of India's trade is dependent on the Gulf of Aden route.

- Thousands of Indian seafarers work on the hundreds of foreign ships transiting the Indian Ocean every day.
- The Ministry of Shipping estimates that Indian imports through the Gulf of Aden route was valued at around $50 billion and exports at $60 billion.

References

1. Business Line - Smooth sailing in Indian Ocean

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