

## 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](#)

