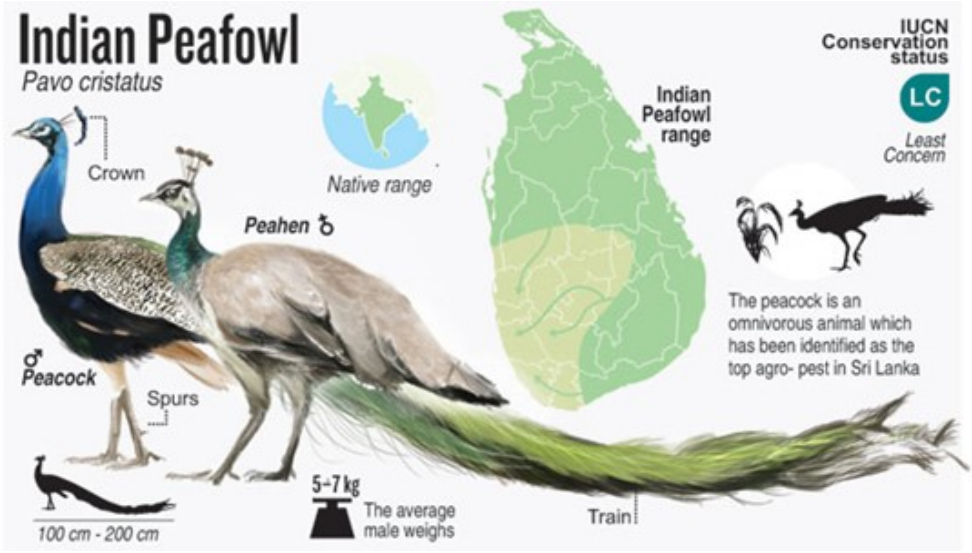
UPSC Daily Current Affairs | Prelim Bits 23-11-2024

Indian Peafowl

Recently, scientists from the Salim Ali Centre for Ornithology and Natural History (SACON) indicated an exponential rise in the population of peafowl in Tamil Nadu.

- Indian peafowl are a species in a group of birds called ***pheasants.***
- **Scientific Name** – Pavo cristatus.
- **Family -**Phasianidae.
- It is known as the ***common peafowl or blue peafowl***.
- **Sex – Male -** It is a Peacock.
    - **Appearance** – Blue-coloured head with a fan-shaped crest and is best known for its long train.
    - **Size –** Tail length of 100–230 cm to the end of a fully grown train.
- **Female -** It is a Peahen.
    - **Appearance -** Brown in color, with a white face and iridescent green lower neck, and ***lacks the elaborate train.***
    - **Size –** Tail length around 38 cm.
- Together, they are peafowl.
- **Habitat -** Scrub forests and forest edges, which prefer moist, dry deciduous and semi-arid habitats.
- **Distribution –** Indian peafowl are native to India and Sri Lanka, in South Asia.
- **Diet –** It is ***omnivorous*** and feeds on grass, seeds, flower buds, fruits, insects, small reptiles and snakes, and on a wide range of crops in cultivated areas.
- **Breeding -** It spread out over the entire year and is more common during the monsoon months of June to August.
- **Conservation Status**
    - **Wildlife Protection Act, 1972 -** Schedule-I.
    - **CITES -** Appendix III.
    - **IUCN –** Least Concern.
- **Threats -** Pesticide poisoning, electrocution, and vehicular accidents were the top causes of peafowl mortality.



Reference

[The Hindu| Indian Peafowl]

Raorchestes asakgrensis

Recently, scientists from the Salim Ali Centre for Ornithology and Natural History (SACON) discovered a new frog species, Raorchestes asakgrensis.

- It is a newly discovered frog species in ***Meghalaya.***
- **Family** – Rhacophoridae.
- It is also known as ***Asakgre bush frog***.
- **Nomenclature -** It is named after the *Eman Asakgre Community Reserve*, where it was discovered.
- It is a *nocturnal individual of bush frogs*, which are most active at night.
- **Features -** Found at an elevation of 174 meters in Eman Asakgre, this small arboreal frog is distinctive for its pointed snout and ***visible tympanum.***
- **Size – Male** – It measures about 20.49 mm in snout-vent length.
    - **Female –** It slightly has a larger snout at 22.8 mm.
- **Calls -** Males call from shrubs at dusk, perched 1.5 meters or higher, with calling activity peaking after the first monsoon rains.



- **Distribution -** Found at the sites of Garo Hills and Khasi Hills of Meghalaya, New Delhi and Bangladesh.
- **Other species - Raorchestes garo –** Found in Daribokgre Community Reserve, Meghalaya.
    - **Appearance -** It has orange-hued hind limbs and externally visible tympanum
- **Raorchestes kempiae -** Found in Mikadogre Community Reserve, Meghalaya.
    - **Appearance –** It has concealed tympanum and yellow-spotted ventral colour.
- **Conservation Status –** It has not yet been concluded.

Salim Ali Centre for Ornithology and Natural History (SACON)
• **Location** – Anaikatti in the Western Ghats, Coimbatore. • **Established by** - The Ministry of Environment and Forest and Bombay Natural History Society. • It is an ideal place for researchers to study more about the multiple ecosystems in this area. • It has 402 species of flowering plants, 177 species of birds and 107 species of butterflies.

References

1. The New Indian Express| Raorchestes asakgrensis
2. Miami Herlad| Raorchestes asakgrensis
3. Hubnews| Raorchestes asakgrensis

Saiga Antelope

Recently, the International Union for Conservation of Nature (IUCN) Red List updated the status for the Saiga Antelope from critically endangered to near threatened category.

- It is an ancient species with a ***distinctive oversized nose.***
- **Scientific name -** Saiga tatarica.
- It is a medium-sized ***hoofed mammal*** that lives in herds in treeless steppe country.
- **Unique Feature** - Swollen snout with *downward-directed nostrils.*
- This peculiar bulbous nose helps it endure the harsh conditions and extreme seasonal

temperature fluctuations of its native habitat.

- It act as air filters, keeping out dust while cooling the blood during the scorching, dry summers.
- It also functions like radiators, warming the frigid air before reaches the lungs during winter.
- The saiga also adapts to the seasons with a dense winter coat, which it sheds as the temperatures rise.



- **Native -** Steppes and semi-arid regions of Central Asia, has roamed the Earth since the Ice Age.
- **Distribution -** Kazakhstan, Mongolia, the Russian Federation, Turkmenistan, and Uzbekistan.
- **Diet -** Graze in semi-deserts, steppes, grasslands, and possibly open woodlands, eating several species of plants, including some that are poisonous to other animals.
- **Breeding -** Females give birth in late April and May.
- **Conservation Status**
  - **IUCN –** Near Threatened.
  - **CITES -** Appendix II.
- **Threats –** Climatic variability, Hunting, poaching and blood diseases.

References

1. Times of India| Saiga Antelope
2. Britannica| Saiga Antelope

WOH G64

European Southern Observatory's Very Large Telescope Interferometer (ESO's VLTI) recently observed WOH G64, which revealed some crucial details about its activity and surrounding layers.

- The WOH 64 is a giant star that dwells in the Large Magellanic Cloud, a dwarf or satellite galaxy that orbits Milky Way.
- **Discovered by -** Bengt Westerlunds, Olander, and Hedin in the 1970s.
- Incidentally, the WOH in its name is the acronym for the names of its three discoverers.
- The star is believed to be around ***1,60,000 light years away*** from Earth.
- **Size -** The star is classified as a ***red supergiant*** owing to its size, which is roughly 2,000 times that of the Sun.
- In 2005 and 2007, the team reportedly used European Southern Observatory's Very Large Telescope Interferometer (ESO's VLTI) in the Atacama Desert of Chile to ascertain the features of the star.
- To get an accurate image, the team had to wait for the development of GRAVITY, a set of VLTI's second-generation instruments.
- Red super-giants like WOH G64 shed their outer layers, which are mainly gas and dust, in the final stages of their lifecycles.
- This process can continue for thousands of years.
- This star is one of the most extreme of its kind, and any drastic change may bring it closer to an explosive end.
- According to the team, the materials that are being shed could be responsible for the dimming of the star and the unusual shape of the dust cocoon around it.

Reference

Indian Express | WOH G64

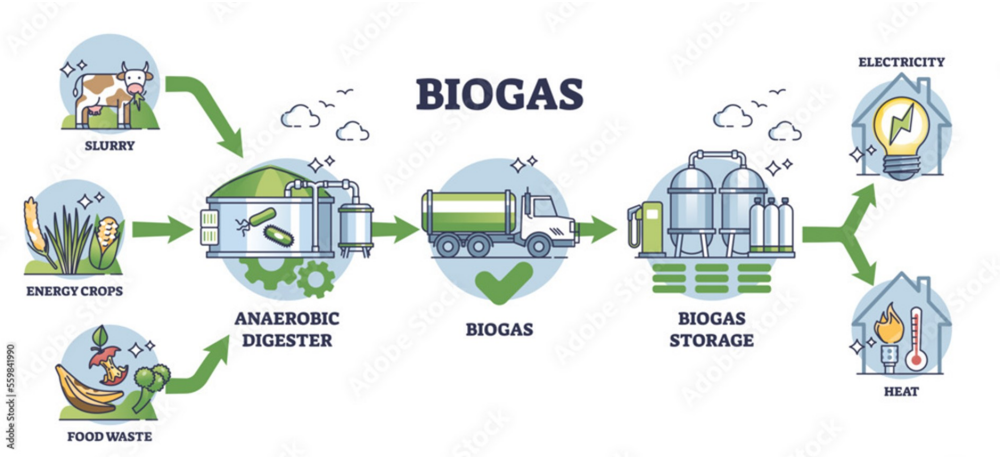
Compressed Biogas (CBG) Plant

Recently, the Prime Minister inaugurated new 100 tons per day cattle dung based Compressed Bio-Gas (CBG) plant in Gwalior.

- **Compressed Biogas (CBG) -** It is produced by ***anaerobic digestion of biomass and waste sources*** like agricultural residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc.
- **Consists -** Mainly methane more than 90% and other gasses like carbon dioxide less than 4%.
- **Compressed Biogas (CBG) Plant -** It is India's first modern, self-sufficient gaushala that houses a state-of-the-art Compressed Biogas (CBG) plant.
- It is the ***first CBG plant in Madhya Pradesh***.
- **Vision -** Waste to Wealth initiative.
- **Ministry -** Ministry of Housing & Urban Affairs
- **Location -** Adarsh Gaushala, Laltipara, Gwalior.
- It is the *Gwalior's largest cowshed over 10,000 cattle live here*.
- **Operated by -** Gwalior Municipal Corporation.
- **Plant Mechanism –** The biogas will be prepared from cattle dung and garbage such as vegetable and fruit waste materials collected from mandis and homes.
- It transforms cow dung, an often-underutilized resource, into Bio CNG and organic

manure.

- It will generate 2 tons of compressed Biogas daily from 100 tons of cattle dung.
- It produces 10-15 tons of dry bio-manure daily, a valuable by-product for organic farming and also produces 2-3 tons of Bio-CNG daily.
- It promoting sustainable practices while reducing carbon emissions.
- **Significance –** It providing a cleaner, eco-friendly alternative to fossil fuels and helping reduce carbon emissions.
- It helps curb carbon emissions, a potent greenhouse gas, making a valuable contribution to climate change mitigation.
- It also creates employment opportunities for locals, boosting the economy while promoting skills in green energy and sustainable practices.



Reference

PIB| Compressed Biogas (CBG) Plant

SHANKAR IAS PARLIAMENT
Information is Empowering