

2020



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CURRENT AFFAIRS

ECOLOGY & ENVIRONMENT

13th January - 18th January



1. Decade Ended 2019 Hottest Ever

Why in News?

According to the World Meteorological Organization (WMO), the year 2019 was the **second-hottest year** since records began to be taken in 1880.

- The **hottest year on record was in 2016** due to the warming impact of a strong El Nino event.

Key Points

- United States government agencies have said that the **decade 2010 - 2019 was the hottest on record.**
- The global average surface temperatures in 2019 was nearly 1°C higher than the average from the middle of last century.
- Since the 1960s, each decade has been significantly warmer than the previous one.
 - This trend continued in the 2010s, and five of the hottest years ever were experienced in the second half of the decade.
- **Causes:** The warming is caused to a large extent by the emissions of carbon dioxide and other heat-trapping gases from the burning of fossil fuels.
 - This pace of warming means the world will almost certainly fail to meet the goals set to combat catastrophic climate change.
- **Climate hotspots of 2019** include Australia, Alaska and Southern Africa.
 - A **climate hotspot** is an area that is particularly facing high impact from global warming and climate change and is most vulnerable to its catastrophic effects.
- Central Canada and the northern US were among the few places that experienced cooler-than-average conditions.
- **Impact of increasing temperature:**
 - Extreme heat has produced the **worst drought in decades in Southern Africa.**
 - **2019 was Alaska's warmest year** on record which has resulted in faster melting of the glaciers and thawing of the permafrost.
 - The **Bering Sea was ice-free** for much of 2019 even at times when the sea is normally completely covered in ice.
 - Agencies have also warned that heat is likely to **lead to more extreme weather events** like the Australian bushfires in 2020 and beyond.
- **Status in India:**
 - The India Meteorological Department (IMD) declared the 2010-19 decade to have been India's hottest since records began in 1901.
 - The average temperature was 0.36°C higher than the 30-year 1981-2010 average.
 - Year 2019 was the country's seventh hottest year on record.

2. Second Wetland Bird Count in Kaziranga

Why in News?

Second wetland bird count was conducted recently in the **Kaziranga National Park**.

- The first wetland bird survey was conducted in 2018.

Key Findings

- A total of 19,225 birds belonging to 96 species under 80 families was reported which is significantly higher than that of 2018.
- The survey covered four ranges of the Kaziranga National Park- **Agoratoli, Bagori, Kohora and Burapahar**.
- Having 96 species of wetland birds is one of the highest for wildlife reserves in India.

Kaziranga National Park

- It is situated in the district of Golaghat and Nagaon in the state of **Assam**.
- It was declared as a **National Park in 1974** and as a **tiger reserve in 2006**.
- It is the single largest undisturbed and representative area in the **Brahmaputra Valley floodplain**.
- It is the oldest park in Assam along the river **Brahmaputra on the North** and the **Karbi Anglong hills on the South**.
- The **National Highway 37** passes through the park area.
- **International Status:**
 - Kaziranga was declared as a **World Heritage Site by UNESCO** for its unique natural environment in the year of 1985.
 - The park has been identified as an **important bird area by Birdlife International Society**.
- **Important Species:**
 - It is the home to the world's largest number of **one-horned rhinos**.
 - Much of the focus of conservation efforts in Kaziranga are focused on the 'big four' species- **Rhino, Elephant, Royal Bengal tiger and Asiatic water buffalo**.
 - As per the figures of tiger census conducted in 2014, Kaziranga had an estimated 103 tigers, the third highest population in India after Jim Corbett National Park (215) in Uttarakhand and Bandipur National Park (120) in Karnataka.
 - Kaziranga is also home to **9 of the 14 species of primates found** in the Indian subcontinent including Arunachal macaque, Assamese macaque, capped langur, hoolock gibbon and Gee's golden langur.

- **Vegetation:**
 - Tropical moist mixed deciduous forests
 - Tropical semi-evergreen forests
- The park also has more than 250 seasonal water bodies, besides the **Dipflu river** running through it.

3. **Bengal Fox**

Why in News?

Forest Department officials in **Salem (Tamil Nadu)** are gearing up to prevent an unusual jallikattu- one that uses foxes (Bengal Foxes) instead of bulls.

- The jallikattu-like event using foxes, or vanga nari in Tamil, is usually organised on **Kaanum Pongal**, the fourth and final day of the harvest festival.

Key Points

- Villagers trap, gag and hobble the Bengal foxes before racing them in a type of jallikattu. After the event, the animals are released into the forest.
- Despite a ban, the event has been organised for decades now.

Bengal Fox

- It is also known as the **Indian fox**, is a species of Asian foxes **endemic to the Indian subcontinent**.
- Bengal foxes are a protected species under the **Schedule II of Wildlife Protection Act, 1972**, and hunting or capturing them is prohibited.
- The medium-sized Bengal foxes are generally found near agricultural areas.
- **IUCN Red List**- Least Concerned

Schedules of Wildlife Protection Act, 1972

- There are six schedules which give varying degrees of protection:
 - **Schedule I and part II of Schedule II:** Species listed are provide absolute protection and offences under these categories are prescribed the highest penalties.
 - **Schedule III and Schedule IV:** Animals are protected but penalties for offences are less.
 - **Schedule V:** Includes the animals which may be hunted.
 - **Schedule VI:** contains the plants, which are prohibited from cultivation and planting.

4. **Ghodahada Reservoir**

Why in News?

The population of Mugger Crocodile is on the rise in Odisha's **Ghodahada reservoir**.

Key Points

- As per the annual crocodile census in the Ghodahada reservoir, the number of mature crocodiles in Ghodahada reservoir and its adjoining area has increased.
- The reservoir is located close to the **Lakhari Valley Sanctuary** and is a part of the Eastern Ghats.
- The reservoir is fed by Ghodahada river which is a tributary of the **Rushikulya**.

Mugger Crocodile

- It is one of the three crocodile species found in Odisha, the others being **gharial in Satkosia** and **Saltwater crocodile in Bhitarkanika**.
- It is mainly restricted to the **Indian subcontinent** where it may be found in a number of freshwater habitat types including rivers, lakes and marshes.
- However, it can even be found in coastal saltwater lagoons and estuaries.
- It is already **extinct in Bhutan and Myanmar**.
- **IUCN status: Vulnerable**
- It is protected under **Schedule I of the Wildlife Protection Act, 1972**.
- It is also listed under **CITES Appendix I**.

Lakhari Valley Sanctuary

- The Lakhari Valley Wildlife Sanctuary is located in Ganjam District, **Odisha**.
- It was established in the year 1985. It experiences **tropical climate** and receives a huge amount of rainfall every year due to its proximity to the Bay of Bengal
- The sanctuary is full of rich tropical forest, valleys, hills, water sources etc.
- The sanctuary is one of the elephant populated sanctuaries in India.

5. Diego - The Giant Tortoise

Why in News?

The famous resident of the Galapagos Islands National Park that helped secure the future of his species, Diego, has retired.

- He will be returned to Espanola Island (Part of Galapagos Islands) from where he was taken around 80 years ago.

Diego

- Diego is a member of the *Chelonoidis hoodensis*, or the giant tortoise species.
- Diego has spent much of his long life — he is 100 years old — in saving his kind.

- His phenomenal sex drive ensured he produced enough progeny to secure the future of his species.
- The Galapagos National Park, where Diego lived, called off the captive breeding programme.
- Diego joined the breeding programme in 1976, and the tortoise population has since gone up from 15 to 2,000.
- **IUCN Red List Status: Critically Endangered**
- **Threats:**
 - Tortoises on the Galápagos Islands served as an excellent source of food for seafarers in the 1800s so a large number were picked up from the islands.
 - Feral goats on the islands posed another danger, competing for food, destroying the tortoises' habitat.

Galápagos National Park

- It was created in 1959 and it was the first national park of Ecuador.
- The Galápagos Islands were designated as a UNESCO World Heritage Site in 1978.

6. Blue Flag Tag

Why in News?

- The Ministry of Environment, Forest and Climate Change has identified 12 beaches across the country for the Blue Flag certification.
- Odisha's Chandrabhaga beach became Asia's first beach to get 'Blue Flag' certification.

'Blue Flag' certification

- The 'Blue Flag' is a certification. It can be obtained by a beach, marine or sustainable tourism operator and serves as an eco-label.
- The 'Blue Flag' certification is conferred on beaches as an indication of high environmental and quality standards.
- The certification is awarded by the Denmark-based non-profit **Foundation for Environmental Education (FEE)**.
- FEE was established in France in 1985 and has extended to areas outside Europe since 2001.
- There are nearly 33 Criteria to be met to qualify for the Certification, few of them are:
 - Environmental Education and Information
 - Bathing Water Quality
 - Environment Management and Conservation
 - Safety and Services
- **Top Rankers:**
Spain

Greece
France

7. Species-rich Forests Offer Stable Carbon Capture

Why in News?

Surveys in **Anamalai Tiger Reserve** and satellite data from **multiple locations in the Western Ghats** show that carbon storage is highest in species-rich evergreen forests.

- The research was published in **Environmental Research Letters**.

Key points:

- The rate of carbon capture was **more stable across years in forests than in plantations**.
- Species-rich evergreen forests stored carbon at approximately 300 tons per hectare.
 - However, the storage in **teak** and **eucalyptus plantations** was 43% and 55% less, respectively.

Anamalai Tiger Reserve

- Anamalai Tiger Reserve is a tropical jungle, shola forest and grassland.
- The reserve is carved out of the Tamil Nadu portion of the Anamalai Hills.
- It falls within the Western Ghats mountain chain of South-West India, a region designated as one of the 25 Global Biodiversity Hotspots.
- This tiger reserve is home to all kinds of exotic endemic wildlife:
 - Leopards
 - Tigers
 - Lion-tailed macaques

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