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RAPID REVISION SERIES (RRS)

**500 HIGH PROBABLE
TOPICS FOR UPSC
PRELIMS 2020**

TOPIC 461-475



YouTube Initiative



IASbaba's

Session 28

**Rapid Revision Series
of
500 HIGH PROBABLE TOPICS
for
PRELIMS 2020**



TOPICS TO REVISE

- 461. COP 3- Minamata Convention on Mercury (2019)
- 462. Battery Waste Management Rules 2020
- 463. Types of Batteries and their uses
- 464. Environment (Protection) Amendment Rules, 2020
- 465. Coal gasification and Hydrothermal liquefaction (HTL)
- 466. Climate Change Performance Index (CCPI)
- 467. Shanon Wiener Index
- 468. Global Peace Index 2019
- 469. Locusts
- 470. Pangolins
- 471. Rhinos without borders
- 472. OPERATION CLEAN ART
- 473. Jerdon's Courser
- 474. Sálim Ali Centre for Ornithology and Natural History
- 475. Important Bird & Biodiversity Areas (IBAs)



Topic 461: COP 3 - Minamata Convention on Mercury

Key points:

1. Global treaty to protect human health and the environment from the adverse effects of mercury.
2. Minamata Convention on Mercury (COP3) --> took place in 2019, International Conference Centre in Geneva, Switzerland
3. Outcome --> manufacture, import and export of products containing mercury will be altogether prohibited by 2020, except where countries have requested an exemption for an initial 5-year period
4. Products containing mercury



Topic 462: Battery Waste Management Rules 2020

Key points:

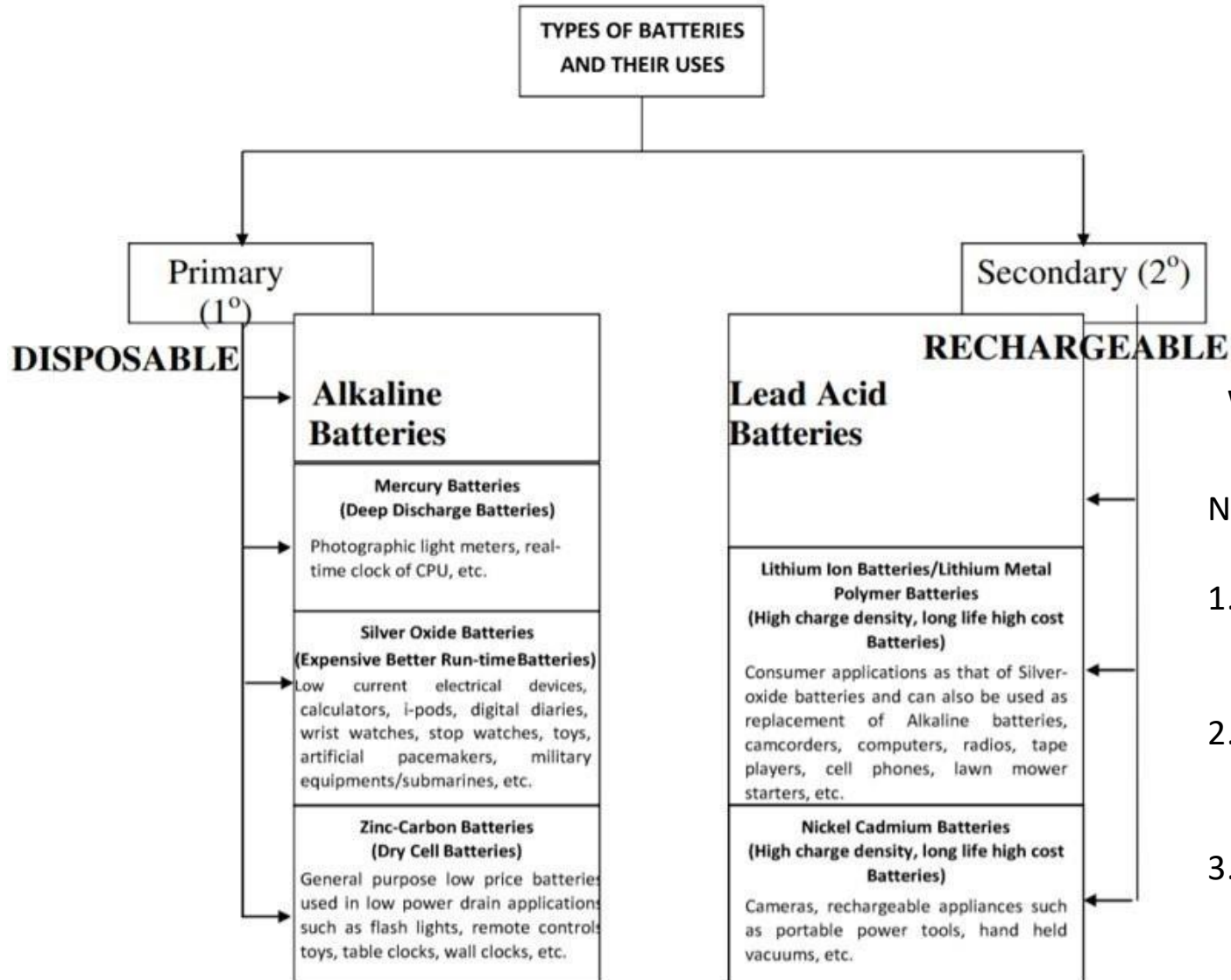
1. New rules do not apply to --
 - 1) Equipment connected with the protection of the essential security interests
 - 2) Equipment designed to be sent into space
 - 3) Emergency and alarm systems
 - 4) Emergency lighting; and
 - 5) Medical Equipment

2. According to new rules, regulations will apply to all types of batteries as listed in the Schedule-I

3. As per the proposed new rules -
 - 1) no one can sell a battery that contains more than 0.0005% (5 ppm) of mercury by weight or a portable battery that contains more than 0.002% of cadmium.
 - 2) Performance testing of batteries - mandatory registration with the Bureau of Indian Standards.
 - 3) No person can sell a battery or battery pack unless it is marked with the “crossed-out wheeled bin symbol.”
 - 4) The government has proposed that manufacturers will have to use the international recycling sign on the batteries.



Topic 463: Types of batteries and WEEE Symbol



WEEE- Waste of electrical and electronic equipment

No person shall place on the market—

1. a **button cell** containing more than 0.0005% of mercury by weight unless it is marked with the chemical symbol “Hg”;
2. a **battery** containing more than 0.002% of cadmium by weight unless it is marked with the chemical symbol “Cd”;
3. a **battery** containing more than 0.004% of lead by weight unless it is marked with the chemical symbol “Pb”.



Topic 464: Environment (Protection) Amendment Rules, 2020

Key points:

1. It is associated with water quality standards for coastal waters marine outfalls
2. Parameters used to measure water quality –
 - 1) Cadmium
 - 2) Copper
 - 3) Mercury
 - 4) Lead
 - 5) Arsenic
 - 6) Chromium
 - 7) Monochrotophos
3. Criteria used – based on Criteria Continuous Concentration (CCC)
4. CCC is an estimate of higher concentration of the material in ambient water



Topic 465: Coal gasification and Hydrothermal liquefaction (HTL)

Key points:

1. Coal gasification is the process of producing “syngas”
2. About Syngas $\rightarrow \text{CO} + \text{H}_2 + \text{CO}_2 + \text{CH}_4 + \text{H}_2\text{O}$
3. Hydrogen obtained from coal gasification can be used for various purposes
4. Applications and significance of syngas

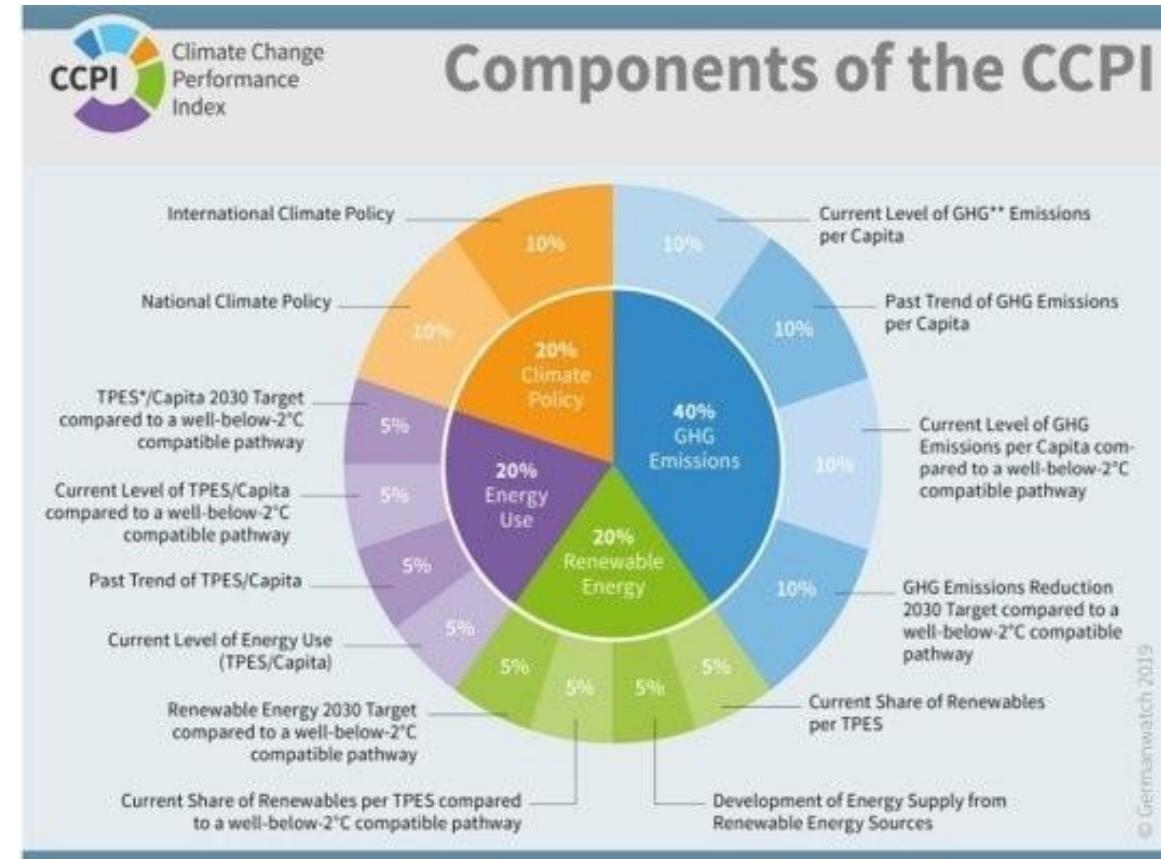
About Hydrothermal liquefaction (HTL) \rightarrow a thermal depolymerization process used to convert wet biomass into crude-like oil



Topic 466 and 467: Climate Change Performance Index (CCPI) and Shanon Wiener Index

Key points:

1. Designed by the German environmental and development organisation Germanwatch
2. India for the first time ranking among the top ten countries (Rank 9 in 2020)
3. CCPI was first published in 2005
4. CCPI 2020 is released by three international NGOs – German watch, New Climate Institute and Climate Action Network.
5. It found the U.S. ranks last, followed by Saudi Arabia and Australia





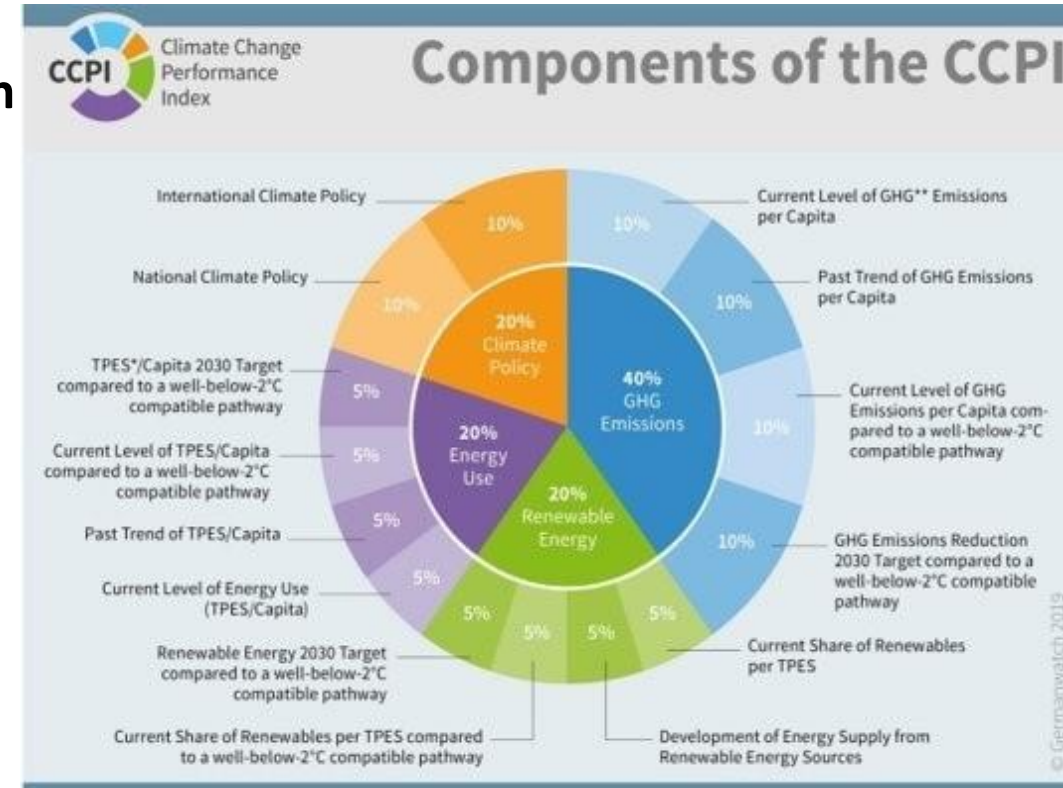
Topic 466 and 467: Climate Change Performance Index (CCPI) and Shanon Wiener Index

Under CCPI, the national performances are assessed based on 14 indicators in the following four categories:

1. GHG Emissions (weighting 40%).
2. Renewable Energy (weighting 20%).
3. Energy Use (weighting 20%).
4. Climate Policy (weighting 20%).

Shanon Wiener Index

1. It is a measure of species richness and abundance.
2. It is used for comparing diversity of species between various habitats.
3. Several quantitative indices have been designed to provide information on different aspects of biodiversity viz, Margalef index, Menhinick index, Simpson index, Shannon-Weiner Index etc.





Topic 468: Global Peace Index 2019

Key points:

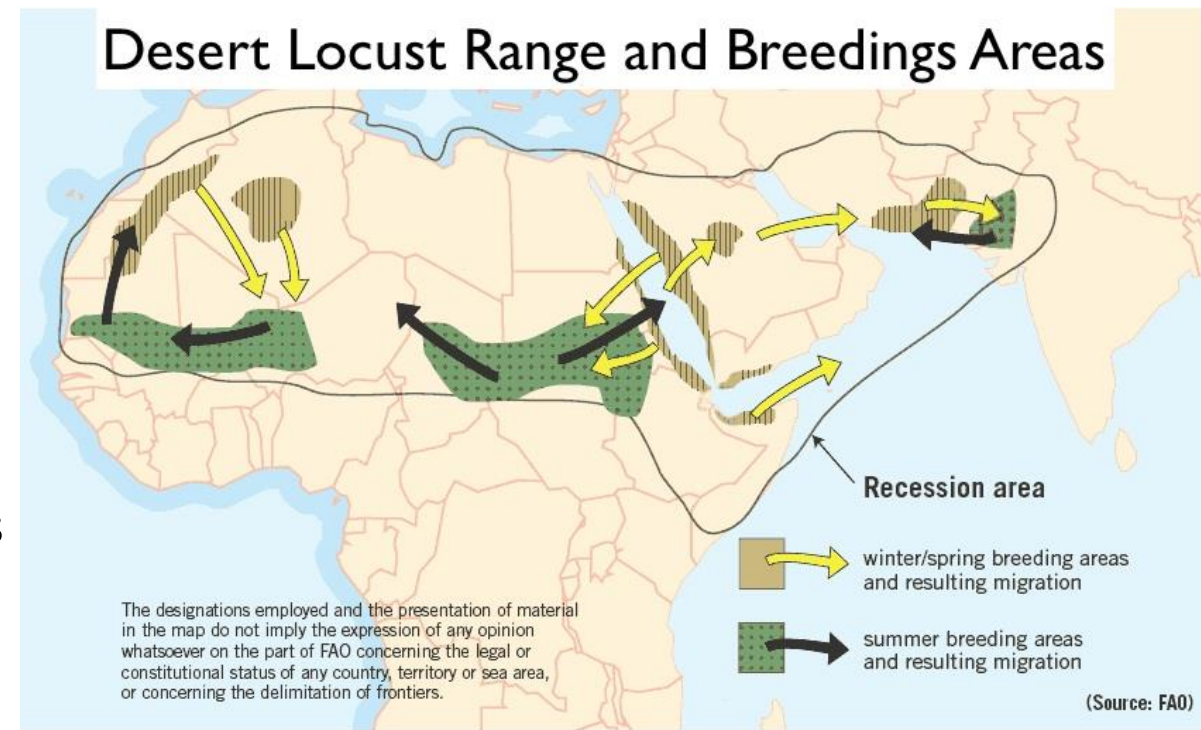
1. It is Published by Institute for Economics and Peace (IEP)
2. It ranks 163 independent states and territories according to their levels of peacefulness.
3. It ranks countries and regions on three broad based themes:
 - Extent of conflict
 - Safety and Security
 - Level of militarisation
4. For the world as a whole, 2019 was the first time the peace score has improved in the last five years.
5. West Asia and North Africa is the least peaceful region followed by S.Asia (Europe is the most peaceful region)
6. Afghanistan was the least peaceful country of the world in 2019. Earlier it was Syria. While Iceland remains the most peaceful country in the world.



Topic 469: Locusts

Key points: (*Schistocerca gregaria*)

1. Desert locust is a short-horned grasshopper
2. Difference between ordinary grasshoppers and Locusts
3. Unique characteristics:
 - 1) Their breeding pattern
 - 2) Hopper development
 - 3) 'Solitary phase' --> 'gregarious phase' --> 'swarms'
4. Climate factor on their movement
 - 1) A pattern of warming in the Indian Ocean (Indian Ocean Dipole)
 - 2) Rainfall (especially torrential) in several parts of West Asia, Oman, Yemen and in the Horn of Africa — Ethiopia, Somalia, Kenya
 - 3) Favourable local winds and mild summer over north and western India
5. Role of FAO and Locust Warning Organisation (LWO), Ministry of Agriculture & Farmers Welfare



<http://www.fao.org/newsroom/en/focus/2004/51040/index.html>



Topic 470: Pangolins

Under threat

The pangolin is the most trafficked mammal in the world. A look at some of its characteristics

- A pangolin's tongue is longer than its body
- It can consume 70 million ants a year
- Pangolins have no teeth; they 'chew' with gravel and keratinous spines inside the stomach
- They close their ears and nostrils to keep insects out
- The animal marks its territories with urine, faeces and stinky secretion from a special gland

There are eight pangolin species – four each in Africa and Asia; two of them are in India



- Scales, made of keratin, like human nails and hair, comprise about 20% of a pangolin's body weight

- Baby pangolins are carried on their mother's back and tail

 The Chinese Pangolin was officially categorised as critically endangered in 2014, but I think it is extinct today. The Indian Pangolin, marked endangered that year, is now critically endangered and disappearing fast

RITESH SAROHIYA
Officer-in-charge,
Madhya Pradesh Forest Department's
Special Task Force

Key points:

1. Classified as a critically endangered species
2. It has thick scaly skin --> Demand due to "medicinal value" and the consumption of their meat (in China and Vietnam)
3. Out of the eight species of pangolin, the Indian and the Chinese pangolins are found in India.
4. Both these species are listed under Schedule I Part I of the Wildlife (Protection) Act, 1972.

IUCN Red List

- Indian Pangolin: Endangered
- Chinese Pangolin: Critically Endangered



Topic 471: Rhinos without borders

Key points:

1. New Delhi Declaration was adopted during the second meeting of the Asian rhino range countries
2. Focus --> trans-boundary collaboration for the conservation and protection of the greater one-horned rhino
3. India to tie-up with 4 nations to save rhinos --> Bhutan, Nepal, Indonesia and Malaysia
4. The five rhino range nations signed a declaration 'The Declaration on Asian Rhinos 2019'

Three species of Asian rhinos –

- 1) Greater one-horned rhinoceros (found in the Indian sub-continent)
- 2) Javan rhinos
- 3) Sumatran rhinos

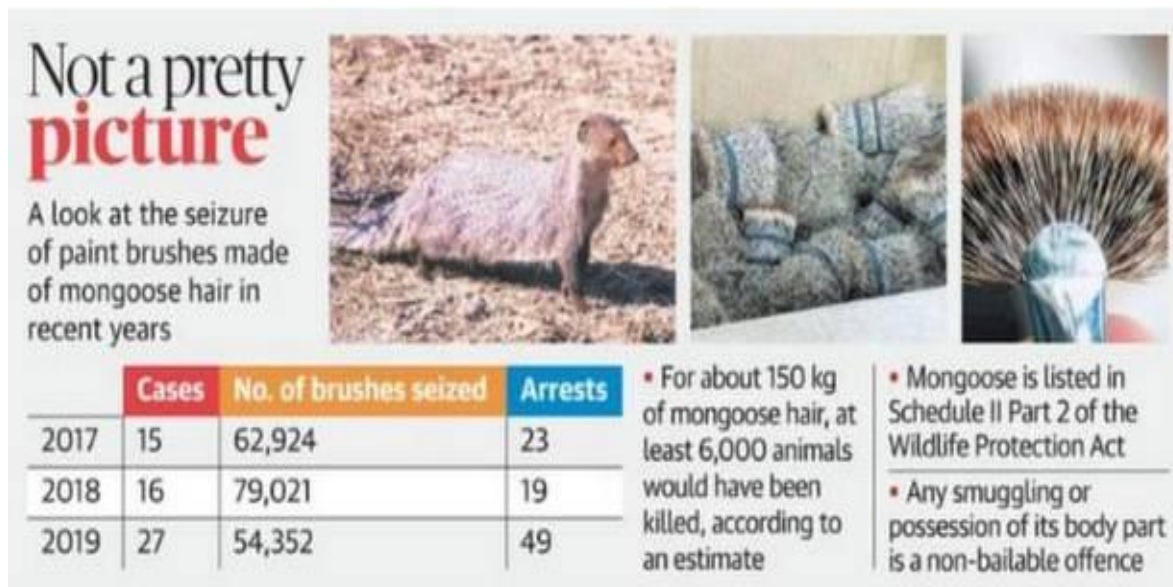
IUCN Status: Javan and Sumatran Rhino are critically endangered but the greater one-horned (or Indian) rhino vulnerable.



Topic 472: OPERATION CLEAN ART

Key points:

1. It was recently conducted in India to ensure that the mongoose hair brush trade be closed down across the country.
2. It was conceived by Wildlife Crime Control Bureau (WCCB).
3. Mongoose hair is in high demand among artists worldwide. India is a major source for these brushes.
4. Mongoose is listed under Schedule II of the WPA, 1972
5. It is listed as Least Concern on the IUCN Red List
6. Mongoose species are native to the Indian subcontinent and West Asia






Topic 473: Jerdon's Courser

RARE BIRDS OF ANDHRA PRADESH


Jerdon's Courser

The bird known only from history records was considered extinct until it was rediscovered in 1986. Now it is documented only in Andhra Pradesh. It is currently known to exist only at the Sri Lankamalleswara Wildlife Sanctuary. The bird had recently "gone underground again", but the Forest Department officials still believe it has not gone extinct and are trying to document it with camera traps.




Great Indian Bustard

Rollapadu Wildlife Sanctuary in Kurnool district is the place in Andhra Pradesh to see the Great Indian Bustard. The sanctuary was established to protect this magnificent bird that has been listed as critically endangered by hunting and loss of habitat. These birds are often found associated in the same habitat as the Blackbuck, the state animal of Andhra Pradesh.




Lesser Florican

The Lesser Florican has been given the conservation status of Endangered. Belonging to the Bustard family the place to see it is the Rollapadu Sanctuary. The males of this species are known for its leaping breeding behaviour during the monsoon season.



Spoon-billed Sandpiper

This is a small wader which breeds in north eastern Russia. It created a flutter when it was sighted and "documented" in Kolleru Bird Sanctuary. Bird enumerators have been look out for this bird ever since. The most distinctive feature of this bird is its spatulate bill. This bird too is listed as 'critically endangered'.



Text by G Venkataramana Rao

Key points:

1. IUCN: Critically Endangered
2. It is a nocturnal bird known only from Eastern Ghats.
3. It inhabits open patches within scrub-forest. This habitat is under tremendous pressure due to various anthropogenic activities.
4. Found only Andhra Pradesh and Telangana, India.
5. There might be around 25 birds of this species and are found only in the Sri Lankamalleswara Wildlife Sanctuary (located in Kadapa district) in the world.



Topic 474: Sálim Ali Centre for Ornithology and Natural History (SACON)

Key points:

1. Centre for information, education and research in ornithology and natural history
2. It was inspired by and named in honour of Salim Ali, the leading pioneer of ornithology in India.
3. It is an autonomous organisation established in 1990 as a public- NGO partnership between the MoEF&CC, and the BNHS under the Centre of Excellence Scheme and registered under the Indian Societies Registration Act.
4. Its headquarters are at Anaikatti, Coimbatore, Tamil Nadu, India.

SACON's mission is:

"To help conserve India's biodiversity and its sustainable use through research, education and peoples' participation, with birds at the centre stage".



Topic 475: Important Bird & Biodiversity Areas (IBAs)

Key points:

1. IBA is an initiative by BirdLife International.
2. It is a programme which aims to identify, monitor and protect a global network of IBAs for conservation of the world's birds and associated biodiversity.
3. BirdLife's Important Bird and Biodiversity Area concept has been developed and applied for over 30 years.
4. Initially, IBAs were identified only for terrestrial and freshwater environments, but over the past decade, the IBA process and method has been adapted and applied in the marine realm.