

Kerala to have its own regional red list of birds

(GS Paper 3, Environment)

Why in news?

- Kerala will soon have its own red list of birds.
- The Kerala Bird Monitoring Collective led by Kerala Agricultural University and the Bird Count India will conduct the regional red list assessment.



Based on IUCN:

- Once it gets ready, Kerala will be the first State to have a region-specific red list of birds.
- Assessment will be done on the basis of the International Union for Conservation of Nature (IUCN) guidelines.

IUCN guidelines for preparing the red list:

- The IUCN guidelines for preparing the red list have five main criteria. The population size reduction measured over 10 years or three generations is one of the major guidelines.
- Geographic range on the basis of extent of occurrence or area of occupancy is another. Small population size and decline; very small or restricted population; and quantitative analysis indicating the probability of extinction in the wild are the other criteria.

Threatened species in Kerala:

- According to the global IUCN red list, **Kerala has 64 threatened species of birds.**
- In that, Red-headed vulture and White-rumped vulture are critically endangered. Steppe Eagle, Banasura Chilappan and Nilgiri Chilappan are endangered and 11 species are vulnerable.

Kerala Bird Atlas:

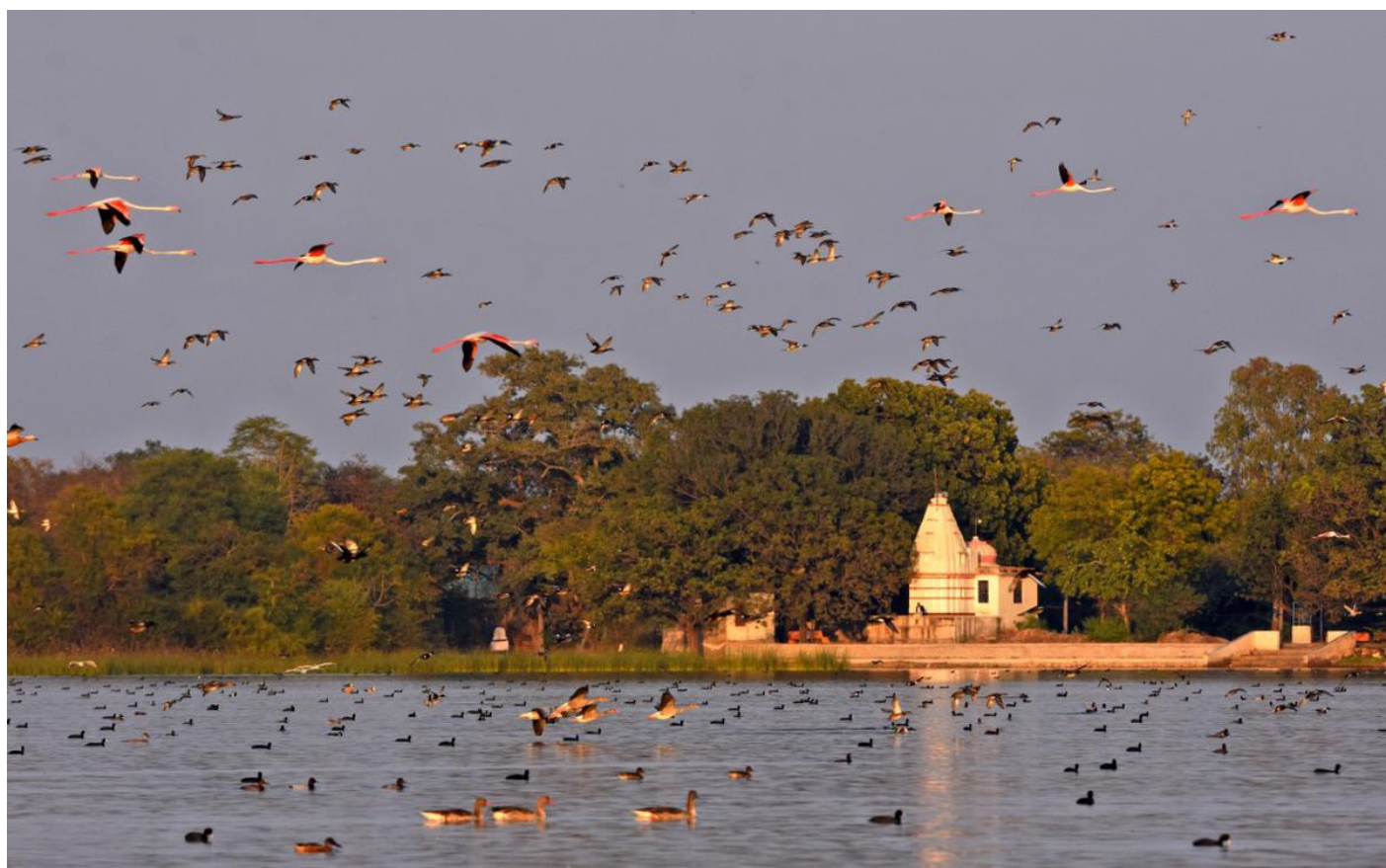
- Conducted as a citizen science-driven exercise with participation of over 1,000 volunteers of the bird watching community, the atlas, prepared between 2015 and 2020, provides a solid baseline data about distribution and abundance of various bird species in the State.
- The Kerala Bird Atlas accounts for nearly three lakh records of 361 species, including 94 very rare species, 103 rare species, 110 common species, 44 very common species, and 10 most abundant species.
- According to the atlas, most of the endemics are concentrated in the Western Ghats while the threatened species are cited mostly along the coast.

Udaipur's 'bird village' set to be declared wetland

(GS Paper 3, Environment)

Why in news?

- Recognised as the “bird village” following community-driven conservation efforts, **Menar in Udaipur district** is set to be notified as Rajasthan's new wetland.
- This will pave the way for getting the Ramsar site status for this rural heartland of the Mewar region.



Brahma and Dhandh lakes:

- The two lakes in the village, the Brahma and Dhandh play host to a large number of migratory birds in the winter season every year.
- With the status of wetland, the two lakes will be strengthened for increasing vegetation of aquatic plants and protecting biodiversity.

Fauna:

- More than 150 species of local and migratory birds inhabit the two lakes in the winter season. They include greater flamingo, white-tailed lapwing, pelican, marsh harrier, bar headed goose, common teal, greenshank, pintail, wagtail, green sandpiper and red-wattled lapwing.

- Bird lovers and tourists flock to the village after the arrival of migratory birds from as far as Central Asia, Europe and Mongolia.

Way Forward:

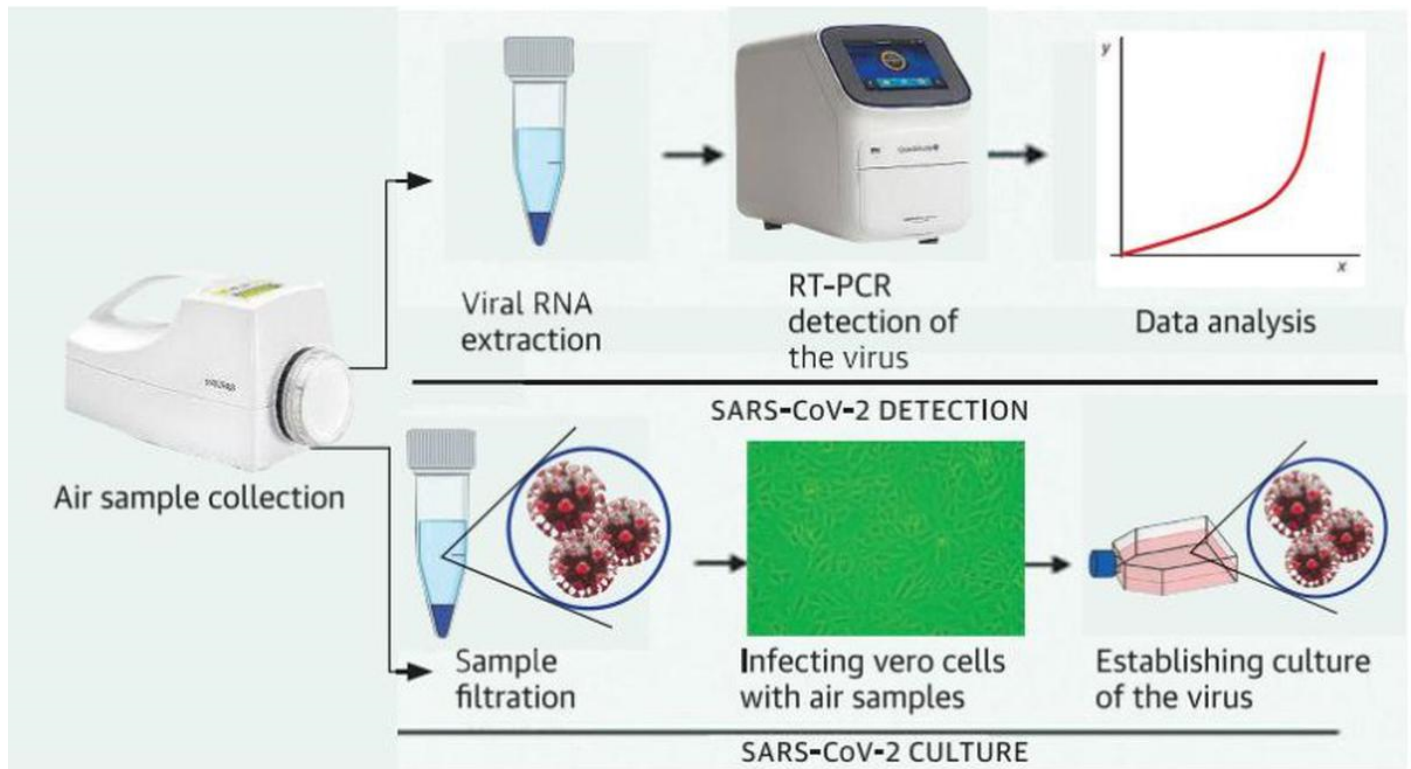
- Environmental activists in the region have high expectations of the declaration of Menar as a Ramsar site under the 1971 Ramsar convention on wetlands of international importance.
- At present, **Rajasthan has two wetlands recognised as Ramsar sites** – Keoladeo Ghana in Bharatpur district and Sambhar Salt Lake in Jaipur district.

Aerosol study shows how SARS-CoV-2 spreads

(GS Paper 3, Science and Tech)

Why in news?

- The transmission of SARS-CoV-2 through the air has been studied at various places around the world.
- Researchers led by those at **CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad**, and **Tata institute for Genetics and Society (TIGS), Bengaluru** carried out a study to get further insight into the transmission characteristics of the novel coronavirus in air in hospital settings and in residential areas and public places.
- The study underline the importance of masks in comparison with mere physical distancing.



Mechanism involved:

- A machine, which sucks in air, similar to a vacuum cleaner, fitted with a filter on which a gel was spread was taken and worked in the target areas.
- After running the machine for long durations stretching to an hour or two, samples collected from the filter were either used to carry out an RT-PCR test to determine the presence of the virus, or were cultured by infecting vero cells in the lab. The latter was done to find out if the collected virus samples were infectious.

Observations:

- The researchers saw the virus in samples collected from COVID-19 wards. Outside, in the corridors and near the hospitals they did not detect it, implying a dilution or removal of the virus.

- **Having separate COVID-19 wards and negative pressure rooms are good**, because infection does not spread very far.
- Negative pressure rooms are isolation wards in hospitals to keep persons with infectious diseases.

Not mere proximity:

- The researchers detected the virus even 20-25 feet away from infected persons.
- Samples taken from air from toilets also showed presence of the virus. The group detected the virus when they sampled the air in the toilet even two hours after an infected person had used it.
- The study implies that when using public toilets, masks should not be removed, even if no one is present.
- The virus can hang in the air for close to two hours after an infected person has used the toilet. It is very risky if someone enters the toilet, sees no one there and removes the mask.

Sterilising rooms:

- The study further observes that **in a closed space, physical distancing alone is not helpful**, because the virus borne on droplets can travel upto 20-25 feet.
- The study thus established that a lot of the (SARS-CoV-2) infection is due to the movement of the virus particles in droplets through the air.
- Air cleaning and circulation in closed rooms is very important. Sterilisation filters may be employed for air conditioning.

Scientists warn of Zika spread to newer areas

(GS Paper 3, Science and Tech)

Why in news?

- Scientists at the National Institute of Virology (NIV), Pune, have raised an alarm about the **spread of the Zika virus, along with dengue and chikungunya**, in several States and Union Territories where it has never been reported earlier, establishing **local transmission in India**.



States under threat:

- Scientists have called for urgent strengthening of surveillance, after the **circulation of Zika virus was detected in Delhi, Jharkhand, Rajasthan, Punjab, and Telangana in 2021**, in addition to Kerala, Maharashtra, and Uttar Pradesh.
- Previously, sporadic cases were reported from Gujarat (2016-17), Tamil Nadu (2017), Madhya Pradesh and Rajasthan (2018).

Co-infection:

- The researchers also found co-infection of Zika, dengue and chikungunya, which, they said, was another concern in many places. There was a need to be aware and take preventive measures.

About Zika virus (ZIKV):

- Zika virus is a **mosquito-borne flavivirus** that was **first identified in Uganda in 1947 in monkeys**. It was later identified in humans in 1952 in Uganda and the United Republic of Tanzania.
- The Zika virus is caused by a virus transmitted primarily by the bite of infected Aedes mosquitoes, mainly Aedes aegypti and Aedes albopictus.

Symptoms:

- Symptoms are generally mild and include fever, rash, conjunctivitis, muscle and joint pain, malaise or headache.
- Symptoms typically last for 2–7 days. Most people with Zika virus infection do not develop symptoms.
- Zika virus infection during pregnancy can cause infants to be born with microcephaly and other congenital malformations, known as congenital Zika syndrome.
- Infection with Zika virus is also associated with other complications of pregnancy including preterm birth and miscarriage.
- An increased risk of neurologic complications is associated with Zika virus infection in adults and children, including Guillain-Barré syndrome, neuropathy and myelitis

Way Forward:

- The development of quick and reliable tests as well as validating the utility of simple serology-based tests for ZIKV would help in augmenting the diagnostic capabilities.
- With the massive upscaling of the COVID-19 RT-PCR testing laboratories in India, this network can also be repurposed for augmenting ZIKV testing.

Juvenile Justice (Care and Protections) Act 2021 & Challenges

(GS Paper 2, Polity and Governance)

Context:

- Reporting instances of abuse and cruelty by staffers or persons in-charge at child care institutions (CCI) is not easy.
- While the victims themselves are unable to directly report them due to the imbalance in power, most such crimes are reported to the police by **either parents or child rights bodies and child welfare committees (CWC)**.
- On the one hand, the parents of these children, who are mostly daily wage labourers, are either unaware of how to, or not inclined to, report the crimes to the police.
- On the other hand, the CWCs' first instinct in most cases is to "talk and arrive at a settlement" without having to escalate the matter to the police.

Response of various State Commissions for the Protection of Child Rights:

- **State Commissions for the Protection of Child Rights** in Delhi, Punjab, Chandigarh, Rajasthan and West Bengal have already publicly spoken out against the 2021 JJ Act amendment and have even flagged it to the Union government.
- Moreover, the Delhi Commission for the Protection of Child Rights has also **challenged the amendment in the Supreme Court**.

Section 86 of the JJ Act:

- Specifically, the amendment under challenge is the one to **Section 86 of the JJ Act**, according to which crimes under the special law, with punishment between three to seven years, have been reclassified as non-cognisable.
- These crimes include cruelty to children by CCI staff (Section 75), employment of children for begging (Section 76), using children to smuggle or sell intoxicating substances and narcotics (Section 78), sale and procurement of children (Section 81), exploitation of child employees (Section 79), use of children by militant or other groups for illegal purposes (Section 83), and giving children intoxicating/psychotropic substances or narcotics (Section 77).



Delay in FIR:

- The current system of reporting crimes committed by staff at CCIs already causes delays in registering FIRs (first information report) and sometimes FIRs not being registered at all.
- According to the Code of Criminal Procedure, once the crimes are rendered non-cognisable, the police will be able to register an FIR only on the directions of a magistrate and a complainant will first have to approach the magistrate concerned to start the process.
- Most children at CCIs whose parents are daily-wage labourers do not want to engage with the legal process because that would force them to take time off from work, resulting in loss of wages.