

Government amended Flag Code of India

(GS Paper 2, Polity and Governance)

Why in news?

- Recently, the government has changed the country's flag code by **allowing the tricolour to fly both day and night** and be **machine-made besides use of polyester**.
- The move came as the government is going to launch '**Har Ghar Tiranga**'.



Key Highlights:

- The display, hoisting and use of the Indian national flag is governed by the **Flag Code of India, 2002** and the **Prevention of Insults to National Honour Act, 1971**.

Paragraph 2.2 of Part-II of the Flag Code of India, 2002:

- The **Flag Code of India, 2002** has been further amended through an order on 20, July 2022 and clause **(xi) of paragraph 2.2 of Part-II of the Flag Code of India, 2002** shall now be read as under:- (xi) "where the Flag is displayed in open or displayed on the house of a member of public, it may be flown day and night".
- **Earlier, the tricolour is allowed to be flown from sun rise to sun set**, irrespective of weather conditions.

Paragraph 1.2 of Part-I of the Flag Code of India, 2002:

- Similarly, **paragraph 1.2 of Part-I of the Flag Code of India, 2002** shall now be read as under: 1.2. "The National Flag shall be made of hand spun and hand woven or machine made, cotton/ polyester/ wool/ silk khadi bunting."
- Earlier machine made and polyester flags are not allowed to be used.

'Har Ghar Tiranga' campaign:

- The Azadi Ka Amrit Mahotsav is being celebrated to commemorate 75 years of a progressive independent India.
- The 'Har Ghar Tiranga' campaign has been launched to encourage the citizens to hoist the national flag in their homes from 13 to 15 August.

Barak Bhuban Wildlife Sanctuary

(GS Paper 3, Environment)

Why in news?

- **Assam's Barak Valley** will soon get a **second wildlife sanctuary** with Governor approving a proposal for the creation of **Barak Bhuban Wildlife Sanctuary**.
- The Barak Valley also houses the **Borail Wildlife Sanctuary**.



Barak Bhuban Wildlife Sanctuary:

- The Barak Bhuban Wildlife Sanctuary will be **spread over an area of 320 sq km** between the **Barak river and the Sonai river**.
- The area has **eight recorded species of primates**; slow loris, rhesus macaque, pig-tailed macaque, stump-tailed macaque, Assamese macaque, capped langur, phayre's leaf monkey and hoolock gibbon.
- It's also an **important habitat for king cobra**.

Barak Valley:

- Named after the second-largest river in the northeast, the Barak Valley is home to 550 species of birds and 100 species of mammals.
- It comprises three districts -- Cachar, Hailakandi and Karimganj.

Way Forward:

- A Shiva temple is located near the site where the Bhuban Wildlife Sanctuary is proposed to be created and these two together can help draw tourists and create employment opportunities in the Barak Valley.

'Digital Jyot' campaign (GS Paper 1, Culture)

Why in news?

- Recently, the Prime Minister tweeted that a **sky beam light has been installed at the Central Park in Delhi, and every tribute paid will intensify the illumination of the Digital Jyot**.
- He also urged people to take part in this unique endeavour and strengthen Azadi Ka Amrit Mahotsav.



What is Digital Jyot?

- According to the Ministry of Culture, the Digital Jyot **symbolizes the glow of freedom** that illuminates our lives.
- It is **surrounded by an illuminated metallic floral sculpture** inspired by the courage and determination of our freedom fighters and martyrs.
- The design finds its inspiration from nature and flowers linked to the ideas of hope, strength and positivity. The picture of the people lighting the lamp will also be flashed on the large LED screen in Central Park.

Rise and fall of cholera-causing bacteria lineage

(GS Paper 3, Health)

Why in news?

- Recently, a group of researchers, including from India and the U.K., identified the decline of antimicrobial resistance in O139 as a key determining factor in its downfall.

Details:

- They have studied the genome of O139 and traced the reason for its dying down after taking over from O1.
- They trace it to two key genomic evolutionary changes that took place in O139, the first related to the type of cholera toxin it produced and the second related to a **loss of anti-microbial resistance**.

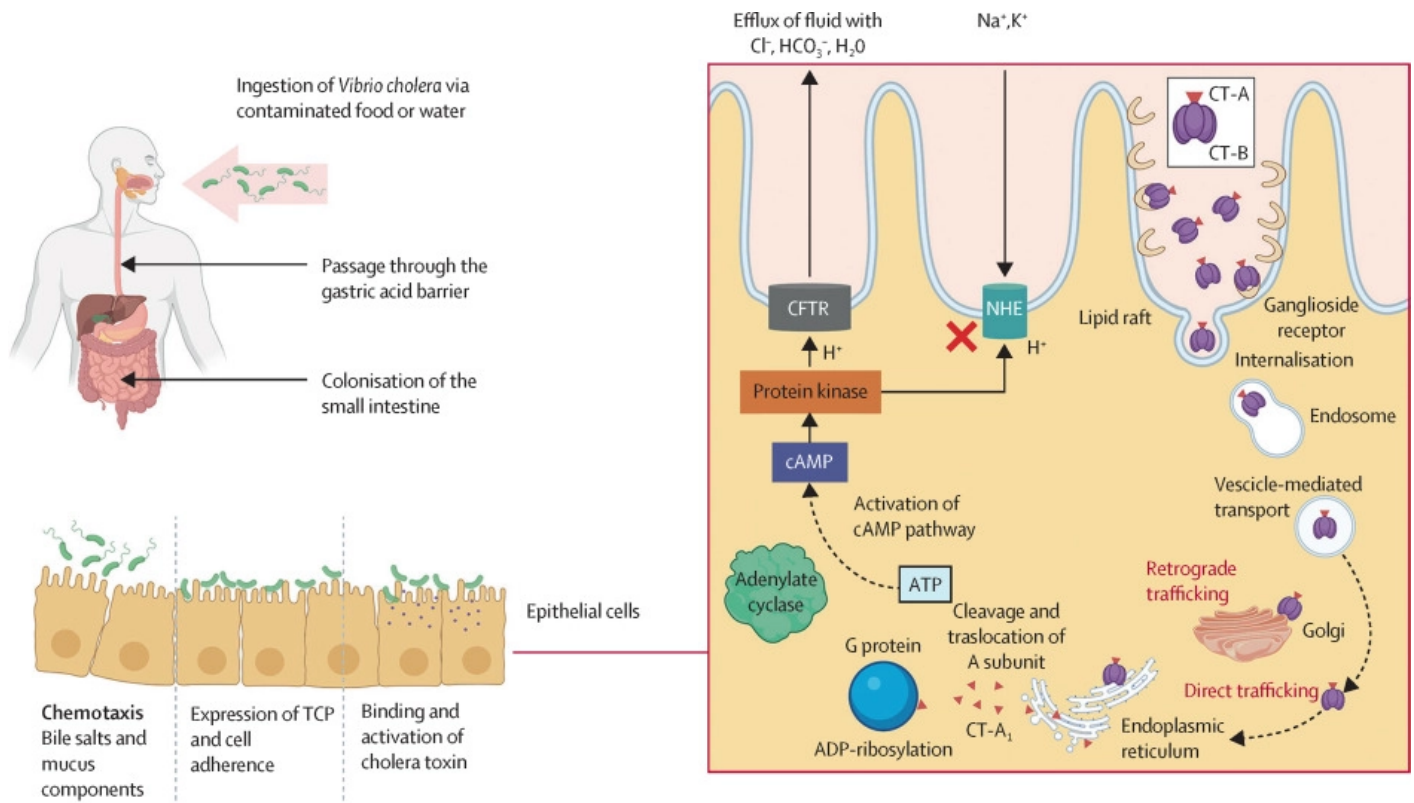
What is Cholera?

- Cholera is a life-threatening infectious disease and a public health hazard. It is caused by a **comma-shaped bacterium known as Vibrio cholerae**.

O1 & O139:

- More than two hundred serogroups of this bacterium are known, of which **only O1 and O139 are known to cause such infection** that leads to epidemics and pandemics.
- Most of the serogroups only cause mild cholera-like diarrhea and food-associated outbreaks.
- Of these two serogroups, **O1 was responsible for seven pandemic waves**, only to be temporarily displaced by O139. This emerged late and came up around 1992. It was first spotted in Chennai (then Madras).

- It was anticipated that this would cause the eighth round of pandemic but it subsided as mysteriously as it had originated.



Key findings:

- Clinical isolates of *V. cholerae* O139 serogroup collected between 1993 and 2015 from several parts of India at the ICMR-National Institute of Cholera and Enteric Diseases, Kolkata and other Asian regions were included in the study.
- When screening the genomes for the evolutionary signatures, they noticed that the antimicrobial resistant pattern was striking from wave A to wave C.
- The study showed that the two main modifications were in the cholera toxin genes and in the antimicrobial resistance (AMR) portfolio.
- With the reduction in AMR capacity of O139, it potentially lost its competitive advantage against the O1. Another aspect comprised of the changes in the toxin gene from homogenous to heterogenous.

Challenging study:

- Reviving the old collection of strains, sequence analysis and interpretation of mutations and other important genes pertinent to this study were great challenges.
- The challenge was to keep an open mind and not have preconceived notions as to why O139 was so successful in displacing O1 in the beginning and yet declined quite early.

Way Forward:

- The study points to AMR as a factor that can decide the success of certain populations of bacteria that go on to produce large outbreaks of disease.
- Continuous surveillance is therefore necessary to monitor if any of the serotypes and serogroups are gaining antibiotic resistance over time and may become major outbreak lineages at any time.