



Daily Current Affairs Prelims Quiz 28-08-2023 & 27-08-2023 (Online Prelims Test)

1) Consider the following statements

1. Aus-Index is the biennial maritime exercise between India, Japan and Australia.
2. Exercise Bright Star is a biennial multilateral tri-service exercise between India and Israel.

Which of the following statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : d

AUSINDEX-23



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- **AUSINDEX-23 is the 5th edition of biennial maritime exercise between Indian Navy and Royal Australian Navy (RAN) that was conducted at Sydney, Australia.**
- INS Sahyadri and INS Kolkata participated in the exercise along with HMAS Choules and HMAS Brisbane from RAN.
- Besides ships and their integral helicopters, the exercise also witnessed participation of fighter aircraft and maritime patrol aircraft.
- AUSINDEX included a series of complex exercises in all three domains of maritime operations.

EXERCISE BRIGHT STAR-23

- **Exercise BRIGHT STAR-23 is a biennial multilateral tri-service exercise between India and Egypt.**
- It is scheduled to be held at Cairo (West) Air Base, Egypt from 27 August to 16 September 2023.
- The objective of the exercise is to practice planning and execution of joint operations.
- This is for the first time that IAF is participating in Ex BRIGHT STAR-23 which will also see participation of contingents from the United States of America, Saudi Arabia, Greece and Qatar.
- The Indian Air Force contingent will consist of five MiG-29, two IL-78, two C-130 and two C-17 aircraft.

2) Consider the following statements with respect to State of India's Birds report, 2023

1. The report lists out the avian species that are of highest conservation priority for the State.
2. The report is produced by 13 organizations that includes government and non-governmental entities.

Which of the following statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

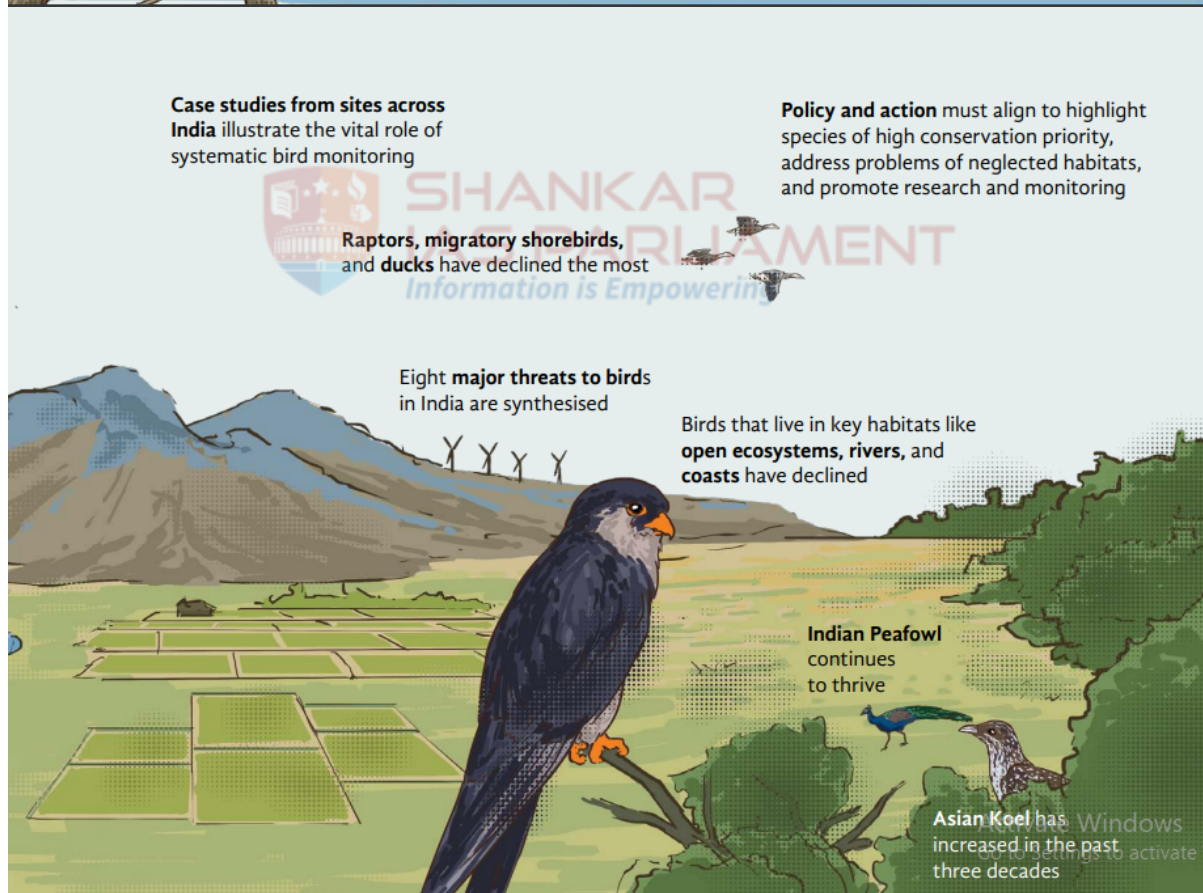
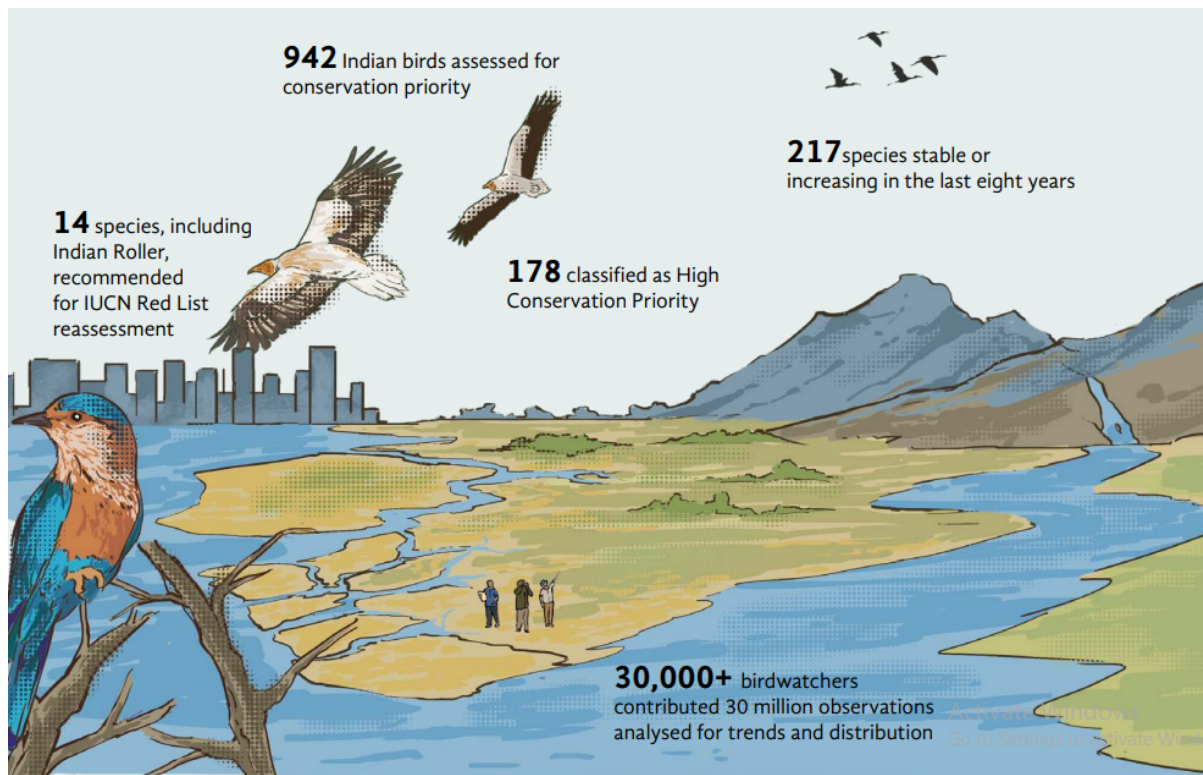
State of India's Birds report, 2023

Recently the State of India's Birds report, 2023 was released by the State of India's Birds Partnership, a group of 13 government and non-government organisations

- The State of India's Birds report is a periodic assessment of the distribution range, trends in abundance and conservation status for most of the bird species that regularly occur in India.
- The report is brought out by the State of India's Birds Partnership, a group of 13 government and non-government organisations that includes:



- This year, the report assessed the “status of 942 bird species largely using data uploaded by birdwatchers to the online platform eBird.
- The earlier assessment carried out in 2020 had listed 15 species of conservation priority.
- Nilgiri Flycatcher (*Eumyias albicaudatus*), a resident species, which is endemic to the Western Ghats, is a species whose abundance has rapidly declined during the past eight years.
- The high priority list of Kerala also includes Northern pintail, Nilgiri wood pigeon, Eurasian oystercatcher, Great knot, Malabar grey hornbill, and Black-capped kingfisher.



3) Consider the following statements with respect to Oceanic Nino Index (ONI)

1. The index measures the average sea surface temperature deviation from normal temperature in east-central equatorial Pacific region.
2. It is the primary indicator of National Oceanic and Atmospheric Administration, USA to monitor El Nino-Southern Oscillation.

Which of the following statement(s) is/are correct?

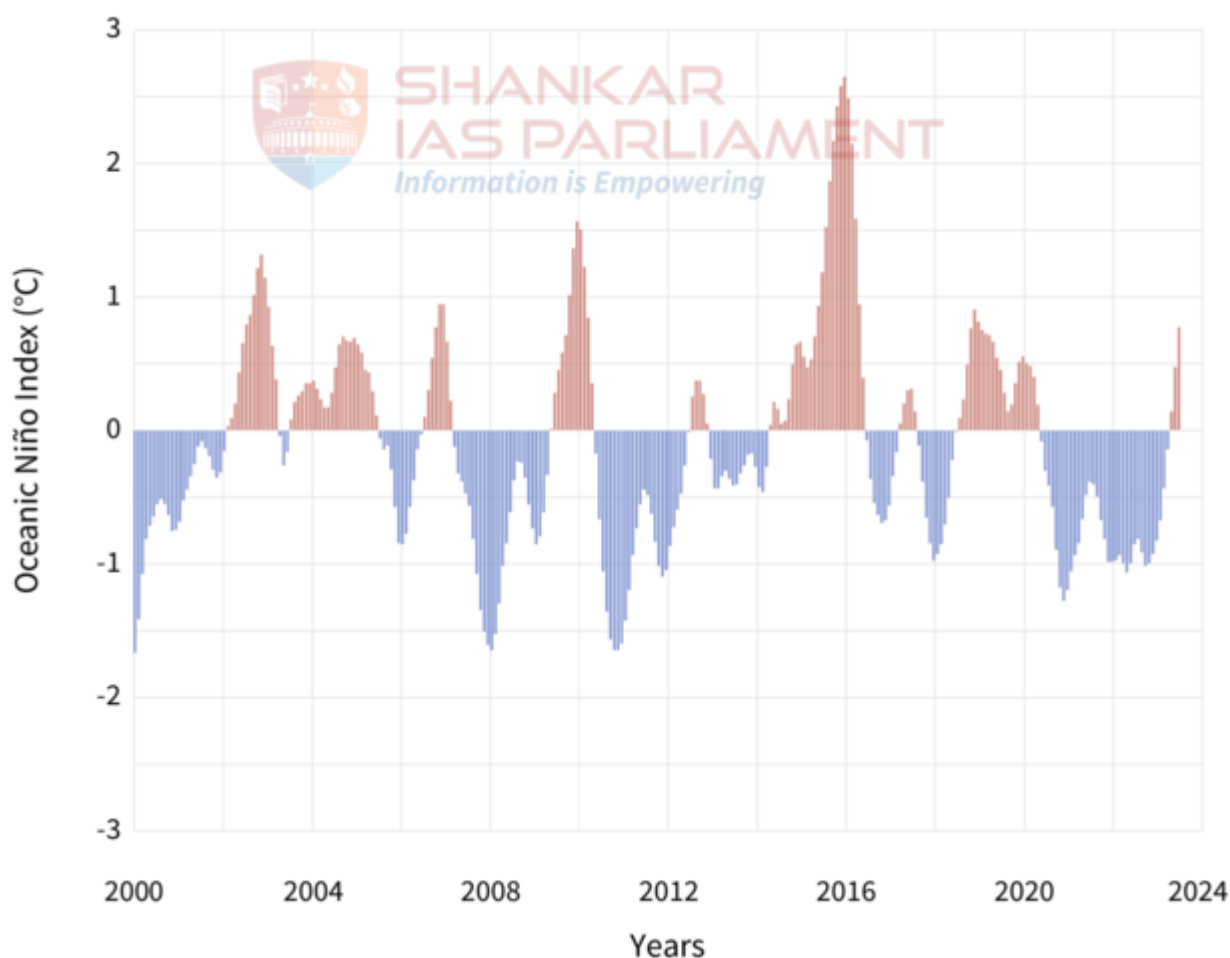
- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

Oceanic Nino Index (ONI)

- The Oceanic Niño Index (ONI) measures the average sea surface temperature deviation from the normal in the east-central equatorial Pacific region.
- ONI is National Oceanic and Atmospheric Administration (NOAA)'s primary indicator for monitoring the ocean part of the seasonal climate pattern called the [El Nino-Southern Oscillation \(ENSO\)](#).
- The ONI tracks the running 3-month average sea surface temperatures in the east-central tropical Pacific between 120°-170°W, near the International Dateline.
- [El Nino](#) conditions is said to be present in the ocean when the index is +0.5 or higher.
- Oceanic La Nina conditions exist when the ONI is -0.5 or lower, indicating the region is 0.5 degrees Celsius or more cooler than average.
- Recently the NOAA has predicted a 66% probability of the ONI exceeding 1.5 degrees Celsius during October-December 2023 and a 75% chance of it remaining above 1 degree in January-March 2024.

OCEANIC NIÑO INDEX (ONI)



4) Consider the following statements with respect to Somatic Genetic Mutations

1. It is an error that occurs in the DNA during cell division.

2. It is driven by the repeated copy-pasting of the genome.
3. These mutations do not pass on to offspring.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None

Answer : c

Somatic Genetic Mutations

- A somatic mutation describes any alteration at the cellular level in somatic tissues occurring after fertilization.
- These mutations do not involve the germline and consequently do not pass on to offspring.
- ***An error that occurs in the DNA after birth but during development is called a somatic genetic mutation.***
- Their occurrence is driven by the repeated 'copy-pasting' of the [genome](#).
- As the cells divide, the DNA is copied with extremely high accuracy due to proteins.
- But despite this mechanism, various studies have estimated that there is still an error rate of 0.64-0.78 mutations per billion base pairs per division.
- ***A somatic genetic mutation can render a cell fitter than others, which lead to the formation of tumours.***
- ***So these mutations are called driver mutations.***
- Somatic genetic variants are important for a number of normal physiological processes.
- The immune cells in our body, which produce antibodies, undergo an enormous amount of somatic changes to create diverse proteins.
- Somatic genetic variants play an important role in the development of cancers.

5) Consider the following statements with respect to Terai-Arc Landscape

1. The landscape extends from the river Yamuna in the west to the river Bhagmati in the east.
2. About half of the population of the wild tiger population in India is found in Terai-Arc Landscape.
3. Sohagi Barwa Wildlife Sanctuary is located in Terai-Arc Landscape.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None

Answer : b

Terai-Arc Landscape

- The Terai Arc Landscape (TAL) is an 810km stretch between the river Yamuna in the west and the river Bhagmati in the east.
- It comprises:
 1. Shivalik region - Covering parts of the lower Himalayas
 2. Bhabar region - Covering the foothills of the lower Himalayas marked by pebbles and boulders
 3. Terai flood plains - Comprising the lowland region below the Himalayan foothills and

north of the Indo-Gangetic plains covering entire Uttar Pradesh, southern parts of Uttarakhand, and Bihar.

- It is spread across the Indian states of Uttarakhand, Uttar Pradesh and Bihar, and the low lying hills of Nepal.
- **About 22% of the wild tiger population in India is found across the TAL.**
- The landscape has 13 Protected Areas 9 in India and 4 in Nepal. Few of them are:

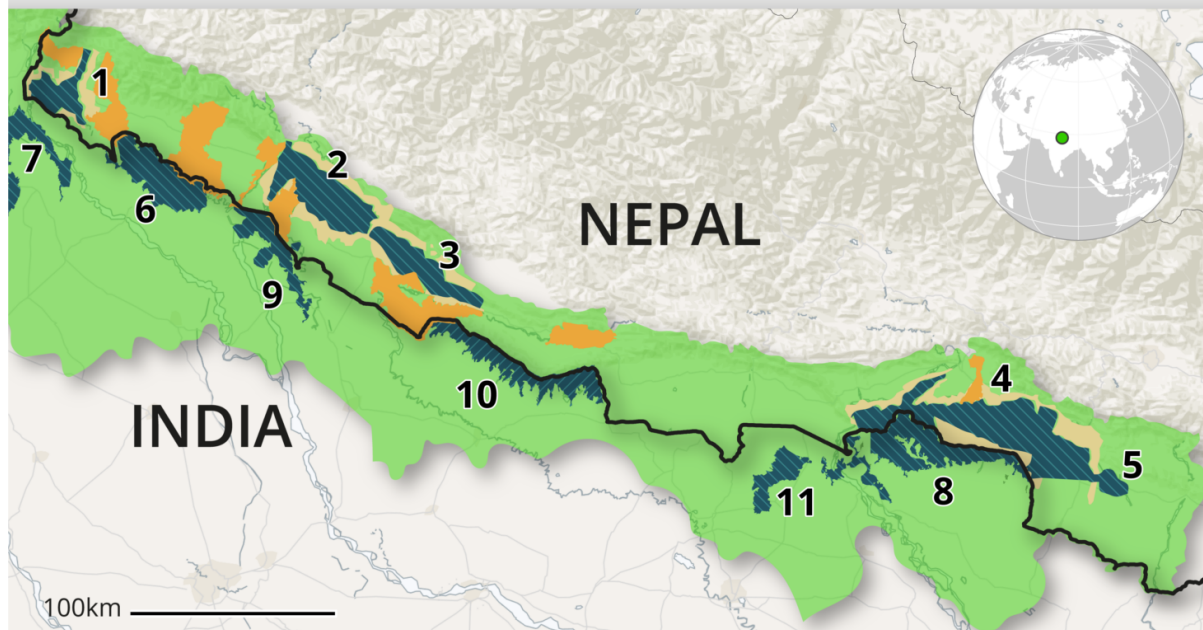
Protected Areas	India	Corbett Tiger Reserve
		Rajaji National Park
		Valmiki Tiger Reserve
		Dudhwa Tiger Reserve
		Amangarh Tiger Reserve
	Nepal	Bardia Wildlife Sanctuary
		Sukhla Phanta Wildlife Sanctuary
		Chitwan National Park



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- **Sohagi Barwa Wildlife Sanctuary is located in Terai-Arc Landscape.**
- The 3 flagship species in the landscape includes:
 1. The Bengal tiger (*Panthera tigris*)
 2. The greater one horned rhino (*Rhinoceros unicornis*)
 3. The Asian elephant (*Elephas maximus*)
- The landscape also has a high mammalian diversity with herbivores including gaur, nilgai, sambar, northern swamp deer, wild pig, chital and goral.

Royal Bengal Tiger Habitats in India and Nepal



Terai Arc Landscape

Protected Areas

Buffer zones

Corridors

Sources:
Mapbox (2021)
WWF (2021)
Thapa, K. et al. (2013)

National Parks:

1. Shuklaphanta NP
2. Bardia NP
3. Banke NP
4. Chitwan NP
5. Parsa NP
6. Dudhwa NP

Tiger Reserves:

7. Pilibhit TR
8. Valmiki TR

Wildlife Sanctuaries:

9. Katarniaghat WLS
10. Suhelwa WLS
11. Sohagi Barwa WLS

 MONGABAY