

4 Dec 2022: UPSC Exam Comprehensive News Analysis



Environment is no one's property to
destroy; it's everyone's responsibility
to protect

- Anonymous



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B. GS 2 Related

Category: GOVERNANCE

1. Telecom Imports

Syllabus: Government Policies & Interventions for Development

Mains: Issues in Telecom Sector

Context: Several equipment makers have recently expressed concern around the import of network gear from China, which is being routed via other neighbouring countries.

Key Details:

- Recently, the Union minister for communications and IT met with over 40 CEOs of telecom gear makers that have qualified for [production linked incentive schemes](#) and decided to set up 4-5 task forces to provide market support to them as well as streamline their business for value addition in the economy.
 - One task force has been set up for creating the component ecosystem.
 - Another task force has been set up for developing 4-5 chips, then taking those chips from design to production.
 - Third task force has been set up to develop highly skilled workers, designers in the telecom sector.
 - Fourth task force has been set up to optimise the use of test beds in IIT Madras, Telecom Engineering Centre.
- During the meeting, several equipment makers expressed concern around the import of network gear from China, which is being routed via other neighbouring countries.
- The government said that it will come up with a methodology to check imports from neighbouring nations, which are non-compliant to trusted source rules of the telecom sector.
- India has banned the import of equipment from China for use in sectors ranging from telecom to power citing national security reasons.
 - These bans were driven by concerns such as spyware or malware being embedded in the imported equipment.

Background:

- In the wake of the 2020 Indo-China border standoff, the Indian government had barred Chinese gear makers Huawei and ZTE from supplying 5G equipment to the Indian telecom operators.

- For non-Chinese vendors, the only bar was that the equipment they supply should not be imported from their factories located in China.
- The National Security Directive on the Telecommunication Sector (NSDTS) aimed at preserving the integrity of the supply chain under which the government will declare a list of trusted sources and trusted products for installation in the country's telecom networks was approved in 2021.
 - The list of the trusted source and product will be decided based on approval of a committee headed by the deputy national security advisor.
 - It also mentions the list of designated sources from where no procurement is to be made.

Nut Graf: Amid concerns by equipment makers around the import of network gear from China, which is being routed via other neighbouring countries. The Union government is working towards strict implementation of NSDTS policy to provide guidance in securing the telecom sector

C. GS 3 Related

Category: SCIENCE AND TECHNOLOGY

1. Benefits of reducing salt intake

Syllabus: Chemicals in Food

Mains: Impact of changing dietary patterns on health

Context: A recent study shows immense benefits of reducing salt intake.

Key Details:

- A recent study published in the Journal of American College of Cardiology showed a higher incidence of heart attacks, heart failure and strokes with higher frequency of adding salt to one's food.
 - This did not include the salt used for cooking.
- Over 1.76 lakh participants from the U.K. Biobank were followed up for an average of 11.8 years.
- Nearly 7,000 heart attacks and over 2,000 strokes were documented during this period.
- After adjusting for all other risk factors, it was found that adding less salt to food was associated with fewer heart attacks and strokes.

DASH diet:

- Reducing salt intake resulting in fewer health issues found to be true even in participants who were following the DASH diet (Dietary Approaches to Stop Hypertension).

- The DASH diet involves eating fruits, vegetables, lean meat, poultry, nuts, whole grains, and reducing the intake of saturated fats, cholesterol, and sugar. It is the best recommended diet to prevent cardiovascular events.

Salt intake in India:

- There is a lack of large and reliable studies estimating the daily salt intake in India.
- Existing data shows a consumption of more than 10 gm per day, far exceeding the recommended allowance.
- It could be worse in children since the recommendation is almost half.
- A study conducted by Sapiens health foundation amongst school and college students in Chennai showed a 10% prevalence of hypertension.
- Intake of salt may be worse in Indians since pickles are often introduced early in life.

Sodium Content:

- Increasing production of more and more processed food, rapid urbanisation, and changing lifestyles are transforming dietary patterns. Highly processed foods are increasing in availability and becoming more affordable.
- People around the world are consuming more energy-dense foods that are high in saturated fats, trans fats, sugars, and salt.
- Salt is the primary source of sodium and increased consumption of sodium is associated with hypertension and increased risk of heart disease and stroke.
- The majority of labels in packaged foods show sodium content.
 - 1 gm of sodium is 2.5 gm of salt.
- There is a large portion of hidden salt in preserved and packaged foods.

Recommendations for salt reduction:

- The [World Health Organisation](#) recommends only 5 gm of salt per day.
- WHO Member States have agreed to reduce the global population's intake of salt by a relative 30% by 2025.
- All salt that is consumed should be iodized or "fortified" with iodine, which is essential for healthy brain development in the foetus and young child and optimising people's mental function in general.
- Salt reduction programmes and programmes that promote fortification with micronutrients of salt, condiments can complement each other.
- Monitoring of population salt intake, sources of salt in the diet and consumer knowledge, attitudes and behaviours relating to salt to inform policy decisions.

Nut Graf: A recent study showed a higher incidence of cardiovascular diseases with higher frequency of adding salt intake. Improving dietary habits is a societal as well as an individual responsibility. It demands a population-based, multisectoral, and culturally relevant approach.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: ENVIRONMENT

1. Are rhino and elephant conservation efforts a success?

Syllabus: Environment and species conservation.

Mains: Rhino and elephant conservation.

Prelims: Status of Rhino and Elephants.

Details:

- Greens worldwide known as the Kaziranga National Park became the greatest conservation success story in 2005 as it completed a century.
- The major reason behind the success is the rhino protection force that shoots the alleged poachers at sight. Over 55 armed men have been killed by them within the boundary of the 1,300 sq. km tiger reserve for unauthorized entry since 2012-13.

Current status of Rhino:

- Rhinos are poor-sighted herbivores.
- The population of the one-horned rhino was about 12 when Kaziranga was declared a protected area in the year 1905. The situation reversed in a century and became a major success story by 2005.
- As per the State of Rhino Report 2022, the number of Rhinos in Kaziranga is around 2,613. This is more than 65% of its total population of 4,014 across eleven habitats in India and Nepal.
- Several conservationists are of the view that there is too much focus on the rhino. However, this has also benefitted other animals in the region. For instance, the number of tigers in Assam has risen at a rate higher than anywhere else in India. As per an estimate from 2010, Kaziranga has the highest density of tigers in the world, about 32.64 per 100 sq. km.

Significance of anti-poaching measures:

- According to an expert, measures like the strengthening of the anti-poaching procedure in India and Nepal with more manpower, capacity-building of frontline staff, and equipping forest guards with better fighting gear have significantly helped in the protection of Rhinos.
- Moreover, local residents' sentiments are also an important factor in the sharp decline in the number of rhinos killed. It has dropped from about 54 in the years 2013 and 2014 to one each in 2021 and 2022.
- There is a constant threat from poachers due to the illegal wildlife trade in neighboring Myanmar and the region beyond specifically Southeast Asia.
- The alien invasive plant species in the major grassland habitats have also emerged as a serious threat to the rhinos in India and Nepal.

Status of elephants:

- India houses approximately 60% [Asian elephants](#) and according to the last estimate of the species (2017) the population stood at around 29,964.
- Though the population of elephants in India has expanded in the past few years, Elephant is listed as 'Endangered' both on the [IUCN Red List](#) of threatened species and Schedule I of The Wildlife Protection Act.
- The population of elephants is unevenly distributed across India. Southern states of India (Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu) account for almost 44% of its population.
- The total number of elephant reserves in India stands at 32 with the latest addition being the Agasthyamalai Elephant Reserve (2022).

Challenges associated with elephant conservation:

- The two major threats to elephants are poaching and [human-animal conflict](#).
- Though incidents of poaching for ivory have decreased considerably, human-elephant conflict is on a constant rise. For instance, around 500 humans and 100 elephants are killed in India every year due to human-elephant confrontations.
- Habitat fragmentation and construction of railways, roads, and power infrastructure have led to several elephant deaths.
- It should be noted that Project Elephant was launched by the Ministry of Environment, Forest and Climate Change in 1992. The aim of the project was to ensure the long-term survival of elephants in their natural habitats.
- Elephant corridors are very important to secure the habitats of elephants and thereby conserve them.

- Elephant corridors are linear narrow habitat linkages that allow elephants to move between secure habitats.
- Around 101 elephant corridors have been identified in India which should be conserved for elephant conservation.

***Nut Graf:** Due to various efforts of the government and the local community, India has become the home to one of the largest shares of both Rhino and Elephant species. However, some issues like poaching and human-animal conflict still persist and thus require to be addressed in a timely manner.*

2. Protecting the Great Indian Bustard

Syllabus: Conservation of biodiversity.

Mains: Great Indian Bustard status and conservation.

Prelims: Great Indian Bustard.

Context: Supreme Court's question regarding the conservation of Great Indian Bustard.

Details:

- The Supreme Court(SC) questioned the Government of India for the conservation of the critically endangered [Great Indian Bustard \(GIB\)](#) on the lines of Project Tiger.
- While hearing the petitions related to the deaths of the GIBs due to power transmission lines, a special bench of the SC led by the Chief Justice of India directed the Chief Secretaries of Gujarat and Rajasthan to comprehensively report the total length of power lines and the need of diverters within four weeks.
- SC also intervened in April 2021 and asked the authorities to convert the overhead cables into underground power lines (wherever feasible) within one year.

Great Indian Bustard:

- GIBs are large birds standing with a height of 1 metre and weight of about 15 to 18 kgs.
- They are not good fliers and have a wide sideways vision to maximize predator detection. However, the frontal vision of the bird is quite narrow.

Threat of Power lines to Great Indian Bustard:

- One of the most significant threats that have led to the considerable decline of the GIB populations is power lines.
- According to various studies across the world, the high mortality of Denham's bustards (South Africa) and Great Bustard (Spain) was caused due to power lines.

- Due to narrow frontal vision, GIBs cannot detect power lines from far. Moreover, as they are heavy fliers, they fail to manoeuvre across power lines within close distances.
- They are highly vulnerable to collision with power lines and the death is majorly due to collision instead of electrocution.
- A study by the Wildlife Institute of India (WII) in 2020 reported 6 cases of GIB mortality due to power-line collisions in Thar from 2017-20.

Status of GIB and Measures taken for its conservation:

- GIB are highly protected in India as well as the world. They are listed in Schedule I of the Indian [Wildlife \(Protection\) Act, 1972](#), in Appendix I of CITES.
- It is listed as a Critically Endangered species on the IUCN Red List. The population of GIB was approximately 1,260 in the year 1969 and has dropped by 75% in the last three decades.
- The GIB population was distributed among 11 western states of India earlier. However, in the present scenario, the entire population remains largely confined to only Rajasthan and Gujarat. Small populations are also found in the states of Andhra Pradesh, Karnataka, and Maharashtra.
- The total population across India stands at 150, out of which around 128 birds are found in Rajasthan.
- Government has taken several measures to mitigate the impact of the power transmission lines.
- Sixteen GIB chicks were artificially hatched from eggs collected from the wild. They are also reared in the satellite conservation breeding facility at Sam in Jaisalmer, Rajasthan.
 - The aim of 'Habitat Improvement and Conservation Breeding of Great Indian Bustard-an integrated approach' is to build the captive population of the GIBs and eventually release the chicks in the wild.
 - The initiative would probably stretch for 20 to 25 years.
- Several conservation experts and scientists from the WII, have demanded the removal of all overhead powerlines passing through the GIB priority/critical areas in Rajasthan. The Ministry of Environment, Forest and Climate Change(MoEFCC) has constituted a task force in this direction.

Other threats to GIB:

- The GIBs are slow breeders and they build their nests on the ground.
- They have also been subjected to hunting and egg collection in the past.
- There is also a threat of habitat loss as the dry grasslands are being diverted for other use.
- Another major challenge is pesticide contamination and increased populations of free-ranging dogs, pigs, and other native predators that put pressure on nests and chicks.

- Though the majority of the species is confined to the Jaisalmer Desert National Park (DNP), the area should be expanded beyond the protected area and must be made suitable for the species.
- It should also be noted that a conservation effort on the lines of [Project Tiger](#) might not work for a large bird of an arid region as it can always fly out of the protected area.
- The community-centric conservation efforts are required for the effective and efficient protection of the species.

Nut Graf: *The Great Indian Bustard is a critically endangered species, whose population has significantly declined in past few years. Both the government as well as the local community should collaborate and conserve the species from extinction.*

3. Cheetahs and tigers: the saga of big cats in India

Syllabus: *Species Conservation.*

Mains: *Cheetah relocation in India.*

Prelims: *Status of Cheetahs and Tigers in India.*

Context: Re-introduction of Cheetahs in Kuno National Park.

Background Details:

- Eight Namibian cheetahs were relocated to the Kuno National Park (KNP), Madhya Pradesh, from Namibia on September 17 as part of an ambitious Cheetah reintroduction project.
- A task force was established to implement the programme.
- Five female and three male cheetahs were flown into India under proper medical supervision. A gradual procedure of their release into the wild is being carefully followed so that they have enough time to adapt to Indian conditions. They were initially housed in 6 'bomas' (enclosures) and were provided buffalo meat.
- As per the recent news, three of the animals have been released into a larger enclosure outside of the 'bomas' after two of them (Freddie and Elton) successfully killed chital for prey in November. The third animal (Oban) was also released in mid-November.
- They are radio-collared and their movements are constantly tracked by a dedicated tracking team.
- A team of wildlife scientists, biologists, and a renowned zoologist and founder of the Cheetah Conservation Fund (Laurie Marker) is closely monitoring the initiative.

Reasons for Cheetah Relocation:

- India was home to Cheetahs earlier, however, they became extinct from India in the mid-twentieth century.
- The present population of cheetahs is 8000, which is confined to only Namibia and South Africa.
- Another species- Asiatic cheetah (which existed in India) is only found in Iran.
- In order to ensure their long-term survival young cheetahs are being reared in Namibia as part of conservation efforts and then sent to different parts of the world.
- Several experts have raised concerns that the KNP has limited space for the cheetah to co-exist with other predators like tigers and lions.

Status of Tiger in India:

- According to the latest survey, the tiger population stands at 2,967.
- It was observed that Tigers are increasing at a rate of around 6% per annum, but their habitat has remained stable, at around 89,000 square km since 2014.
- The tiger census is carried out with a sophisticated system involving camera traps and mathematical analysis. It should be noted that in 2006, the tiger population stood at 1,411 tigers. It increased to 1,706 in 2010 and 2,226 in 2014 due to improved conservation efforts and new estimation methods.
- The proper implementation of Project Tiger (since 1973) and anti-poaching measures played a crucial role in the conservation of tigers.
- India has a total of 53 tiger reserves. But it is also observed that increased numbers have meant that around half the tigers are outside the protected zones resulting in increased instances of human-animal conflict.

Nut Graf: Indian government has taken several steps to conserve both cheetahs and tigers in India, including the recent relocation of Cheetahs to Kuno National Park. The tiger population has considerably increased and similar success is expected from the efforts for Cheetah conservation. However, some issues do exist which need timely redressal.

F. Prelims Facts

1. Electoral Bonds

Syllabus: GS02-Polity

Prelims: Electoral Bond Scheme; Registered Political Party.

Context: The government has recently opened another week-long window for electoral bond sales, starting December 5.

Key Details:

- The Union government announced the 24th tranche of electoral bond sales through 29 branches of the State Bank of India (SBI) across the country which are authorised to issue and encash the bonds from December 5 to December 12, 2022.
- Previously, the Union Ministry of Finance issued a notification for amending the scheme to provide “an additional period of 15 days” for their sale “in the year of general elections to the Legislative Assembly of States and Union Territories with Legislature”.
- The original scheme had provided for an additional period of thirty days, as specified by the government, in the year when Lok Sabha elections are held, while the amendment added another 15 days.

G. Tidbits

1. Al-Badar

- The State Investigation Agency (SIA), a special cell of the J&K Police, on Saturday continued with its crackdown on “networks of militant outfits” and searched multiple locations across Kashmir.
- The case is related to the members of Al-Badar, a militant organisation in Pakistan.
- Al Badr is an Islamic terrorist group operating in the Kashmir region. It was banned by India under The Unlawful Activities (Prevention) Act, 2004.
- It is also designated as a Foreign Terrorist Organization by the United States. The current Al Badr leadership is also opposed to the United States, Israel and the regime of Saudi Arabia.
- The group was allegedly formed by the Pakistani Inter-Services Intelligence (ISI) in June 1998 with the goal of strengthening the Kashmiri freedom struggle and to liberate the Indian State of Jammu and Kashmir and merge it with Pakistan.

2. Independent Ministry for Divyang

- On the occasion of the International Day of Persons with Disabilities, the Maharashtra government inaugurated the Ministry for Divyang (differently-abled) in Mumbai, to cater to people with special physical and mental needs educationally and professionally.
 - International Day of Persons with Disabilities (IDPD) is observed every year on 3 December.
 - The theme for this year is “Transformative solutions for inclusive development: the role of innovation in fueling an accessible and equitable world.”
- Maharashtra has become the first State to have an independent Ministry for disabled persons.

- The Ministry is envisaged for the welfare of the persons with disabilities and effective implementation of various government schemes for them.
- Earlier all complaints and issues related to the disabled persons were handled by the Social Justice department headed by the Minister of Social Justice and Empowerment.

H. UPSC Prelims Practice Questions

Q1. How many of the given statements is/are INCORRECT? (Level-Difficult)

1. The most abundant isotope of carbon in the atmosphere is carbon-14.
2. Carbon-14 is a radioactive isotope of carbon and is the basis for Carbon dating.
3. Radiocarbon dating provides most accurate results for objects older than 60,000 years.

Options:

- a) One statement only
- b) Two statements only
- c) Three statements only
- d) None of the above

Answer: b

Explanation:

- **Statement 01 is incorrect**, Carbon-12 isotope is the most abundant carbon isotope that makes up about 98.89% of all naturally occurring carbon. It is found in all biological systems.
- **Statement 02 is correct**, Carbon-14 is a radioactive isotope of carbon with an atomic nucleus containing 6 protons and 8 neutrons. Its presence in organic materials is the basis of the radiocarbon dating method.
- **Statement 03 is correct**, Radiocarbon dating is a radiometric dating method that uses Carbon 14 to determine the age of carbonaceous materials up to about 60,000 years old.

Q2. How many among the following Musical instruments classify as Tata Vadya? (Level-Difficult)

1. Tanpura
2. Kamaicha
3. Pillankarovi
4. Jhanj

Options:

- a) One only
- b) Two only

- c) Three only
- d) All four

Answer: b

Explanation:

- The [Tata Vadya](#) is a group of musical instruments in which sound is made by the vibration of a chord or a string.
- Pillankarovi (flute) is a family of classical music instruments in the woodwind group. Like all woodwinds, Pillankarovi are aerophones, meaning they make sound by vibrating a column of air.
- A Jhanj (cymbal) is a common percussion instrument. Often used in pairs, cymbals consist of thin, normally round plates of various alloys.

Q3. Which of the following pairs are correctly matched? (Level-Medium)

Tribes	State
1. Gond and Korku	Madhya Pradesh
2. Bhutia and Lepcha	Sikkim
3. Irula and Toda	Chhattisgarh
4. Sahariya and Agariya	Assam

Options:

- a) 1 and 2 only
- b) 2, 3 and 4 only
- c) 2 and 4 only
- d) 1 and 3 only

Answer: a

Explanation:

- **Pair 01 is correctly matched**, Gond and Korku tribes belong to the State of Madhya Pradesh.
- **Pair 02 is correctly matched**, Bhuta-Lepcha is an ethnic grouping consisting of people of the Bhutia and Lepcha communities in Sikkim.
- **Pair 03 is incorrectly matched**, Irula and Toda are the hill tribes of Nilgiri in Karnataka, Kerala and Tamil Nadu.
- **Pair 04 is incorrectly matched**, Sahariya is an ethnic group of Madhya Pradesh .They are also found in some parts of Rajasthan.

- The Agariya are a community in Madhya Pradesh and Uttar Pradesh.

Q4. How many of the following states/ UTs have a common State Animal? (Level-Medium)

1. Assam
2. Delhi
3. Karnataka
4. Jharkhand

Options:

- a) All of the above
- b) Two only
- c) Three only
- d) None of the above

Answer: b

Explanation:

- One horned rhinoceros is the state animal of Assam.
- The state animal of Delhi is Nilgai.
- Indian Elephant is the state animal of Karnataka and Jharkhand.

Q5. The term 'M-STRIPES' is sometimes seen in the news in the context of (PYQ-CSE-2017)(Level-Medium)

- a) Captive breeding of Wild Fauna
- b) Maintenance of Tiger Reserves
- c) Indigenous Satellite Navigation System
- d) Security of National Highways

Answer: b

Explanation:

- M-STrIPES (Monitoring System for Tigers - Intensive Protection and Ecological Status) is a software-based monitoring system launched across Indian tiger reserves by the Indian government's National Tiger Conservation Authority (NTCA) in 2010.
 - M-STrIPES allows patrol teams to keep a better tab on suspicious activity while also mapping the patrolling, location, routes and timings of forest officials.

I. UPSC Mains Practice Questions

1. Wildlife and biodiversity of the world is facing its gravest threat due to unbridled anthropogenic activities. Discuss with examples of its impact of few species. (250 words; 15 marks) (GS-3; Environment & Ecology)
2. Why has the Supreme Court sought an initiative like Project Tiger to save the critically endangered Great Indian Bustard? How are power transmission lines a great threat to the species? (250 words; 15 marks) (GS-3; Environment & Ecology)