

SAMADHAN PT TRICKS



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PT TRICKS 2023 Environment Animals

Covering: Basic concepts- current- terms and application

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Ikki Jathre

- Recently, a Kerala-based organisation, Thanal launched the Ikki Jathre or the Festival of Rice whereby 300 climate-resilient varieties of traditional rice were planted in Wayanad.
- The initiative aims to sensitise people to the significance of conserving traditional crops that have the ability to withstand harsh climatic conditions
- Thanal initiated the Rice Diversity Block (RDB) at Panavally under the Save Our Rice campaign in 2009.
- About one-fourth of the total cropped area in India is under rice cultivation
- Leading Producer States: West Bengal, Uttar Pradesh, and Punjab.
- India is the second-largest producer of rice after China.

FIRST SYNCHRONIZED VULTURE SURVEY

- Recently, Kerala, Tamil Nadu, Karnataka began the first synchronised vulture survey in select regions of the Western Ghats.
- It will be conducted after dividing the Wayanad landscape, where the bird species are frequently sighted, into 10 locations.
- The Wayanad Wildlife Sanctuary, contiguous to the tiger reserves of Nagarhole and Bandipur of Karnataka and Mudumalai of Tamil Nadu, is the lone region where vultures thrive in the State.
- Vulture Conservation and Breeding Centre (VCBC), Pinjore is a joint project of the Haryana Forest Department and the Bombay Natural History Society (BNHS), a NGO.
- It is a collaborative initiative to save the three species of vultures, the White-backed, Long-billed and Slender-billed, from looming extinction

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Vultures in India



9 species of vultures are recorded from India.



Four species of vulture are found in southern India and are concentrated in the Nilgiris Biosphere Region-Long Billed Vulture, Red Headed Vulture and Egyptian Vulture and White-Rumped Vulture.

Role of Vultures in Ecosystem



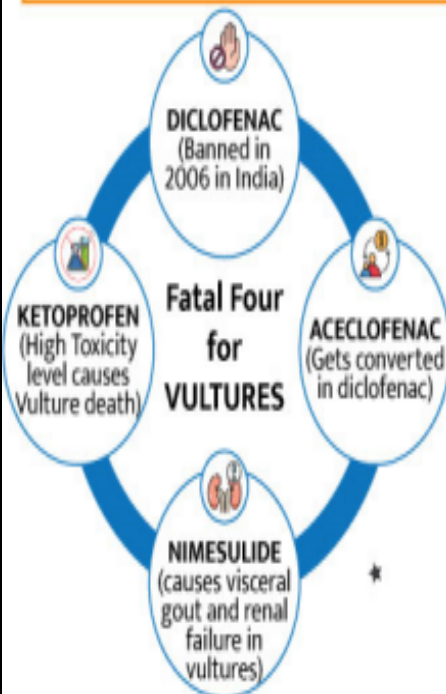
Provides the stability of ecosystems and food webs.



Efficient, cost-effective and environmentally beneficial carcass disposal service.



Helps in preventing livestock borne diseases such as tuberculosis and anthrax by disposing of infected carcasses.



Factors behind the fall of population include Food Contamination of vulture food supplies with non-steroidal anti-inflammatory drugs; Habitat degradation etc.

Vulture Species in India

Species	Conservation Status
Oriental White-backed Vulture or White-rumped vulture Genus: Gyps	WPA,1972 Schedule I
Long-billed Vulture Genus: Gyps	appendix II
Slender-billed Vulture Genus: Gyps	
Red-headed Vulture Genus: Monotypic	
Bearded Vulture Genus: Monotypic	
Cinereous Vulture Genus: Monotypic	
Himalayan Vulture Genus: Gyps	WPA,1972 Schedule I
Eurasian Griffon Genus: Gyps	

Action Plan for Vulture Conservation 2020-2025

- Prevention of poisoning of cattle carcasses, the principal food of vultures
- Enhancement of Conservation Breeding Programme in the country
- Regular monitoring of vultures across the country
- Enhancing the vulture safe zone network by creating at least one vulture safe zone in each state and continuing to work on the existing efforts of vulture safe zone.
- Determining and preventing other causes of mortality in vultures

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RED SANDERS

- TRAFFIC factsheet highlighted Red Sanders is India's most exploited tree species.
- TRAFFIC was established in 1976 by WWF and IUCN as a wildlife trade monitoring network to undertake data collection, recommendations on wildlife trade.
- China remains the largest importer.
- It highlights the threats of rampant illegal logging and smuggling of trees especially in Chittoor, Kadapa, Nellore & Kurnool districts in Andhra Pradesh
- Red Sanders is a flora-species that is endemic to a distinct tract of forests in Eastern Ghats.
- It is a very slow-growing tree species that attains maturity after 25 – 40 years.
- It is fire-hardy and resistant to droughts.
- It is locally known as Yerra Chandanam, Rakta Chandanam.
- It is exploited for the extraction of Santalin (a red pigment used as dye and colorant in food), medicine, cosmetics.
- It is also a good raw material for musical instruments and luxury furniture.



CHEETAH TRANSLOCATION

- India and South Africa signed a MoU on Cooperation on Re-introduction of Cheetah to India with an aim to expand cheetah meta-population
- Cheetahs were made available by Phinda Game Reserve, Tswalu Kalahari Reserve, Waterberg Biosphere, Kwandwe Game Reserve and Mapesu Game Reserve and will join Cheetahs relocated to Kuno National Park
- Plan is to translocate a further 12 annually for next eight to 10 years.
- Cheetah was declared extinct in India in 1952 due to over hunting and loss of habitat.
- Translocation is being made under 'Project Cheetah', world's first inter-continental large wild carnivore translocation project.
- National Tiger Conservation Authority (NTCA) is nodal agency for project.
- Cheetah, world's fastest mammal, is a keystone species (organism that helps define an entire ecosystem) of dry forests, scrub forests, and savannahs.
- Protected under Appendix 1 of CITES.

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- IUCN status: African Cheetah (Vulnerable); Asiatic Cheetah (Critically endangered).

PANGOLIN

- Over 1,000 pangolins poached and trafficked in India between 2018 and 2022.
- Pangolins are among the most trafficked wild mammals globally.
- Pangolins are only mammals wholly-covered in scales (use to protect themselves).
- Diet: eat ants, termites and are called as scaly anteater.
- Behaviour: solitary, primarily nocturnal animals.
- Pangolin is an 'ecosystem engineer' that helps in soil circulation
- Threats: Scales used in traditional medicines, meat for consumption.
- Out of 8 species of pangolins, Two are found in India.
- Indian Pangolin (Endangered), Chinese Pangolin (Critically Endangered).

LADAKH'S FIRST BIODIVERSITY HERITAGE SITE

- Local Biodiversity Management Committee, concerned panchayat, along with SECURE Himalaya Project recently resolved to declare Yaya Tso as Ladakh's first biodiversity heritage site
- Yaya Tso is a nesting habitat for a large number of birds and animals, such as the bar-headed goose, black-necked crane and brahminy duck.
- Under Biological Diversity Act (BDA) 2002, the State Governments are empowered to notify BHS, in consultation with 'local bodies', areas of biodiversity importance as Biodiversity Heritage Sites.
- Criteria for BHS: species includes richness, high endemism, presence of rare, endemic and threatened species, keystone species, species of evolutionary significance etc.
- There are 36 BHS in India, Mahendragiri hill (Odisha) is the last BHS added in 2022.
- SECURE Himalaya is a joint project of Ministry of Environment, Forest and Climate Change and United Nations Development Programme (UNDP), funded by Global Environment Facility.
- It is aimed at conservation and protection of the high-altitude ecosystems of the Himalayas.

DICKINSONIA

- An alleged fossil discovered near Bhopal about 2 years ago and thought to be of an extinct Dickinsonia turned out to be an impression of a decayed beehive

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- Dickinsonia is considered to be Earth's oldest animal, dating back 570 million years ago (late Ediacaran period).
- It is an extinct genus of a basal animal (animals which have radial symmetry in their body plans).
- It is considered an integral links between early, simple organisms and then explosion of life in Cambrian Period that was around 541 million years ago.
- Dickinsonia has been found in Australia, Russia, Ukraine, China.

Keoladeo National Park

- The Rajasthan Government has proposed to construct a zoo inside Keoladeo National Park, a World Heritage Site popularly known as Bharatpur bird sanctuary
- The purpose of this zoo, called Wetland ex-situ Conservation Establishment (WESCE), is to display a range of wetland species, including rhinos, water buffaloes, crocodiles, dolphins and exotic species
- Several facilities are planned inside Keoladeo National Park, including, □ A breeding and reintroduction centre for locally extinct species (otters, fishing cats, blackbucks, hog deer, etc). □
- An aquarium for indigenous species like Gangetic Dolphin, crocodiles; enclosures for the display of large wetland species like Indian Rhino, Water Buffalo, Barasingha (swamp deer)
- Keoladeo National Park is a UNESCO World Heritage Site and one of the most important bird-watching areas in the world.
- Chilika Lake (Orissa) and Keoladeo National Park (Rajasthan) were recognized as the first Ramsar Sites of India in 1981.
- Currently, Keoladeo National Park and Loktak Lake (Manipur) are in Montreux record.
- Animals such as Jackals, Sambar, Nilgai, wild cats, hyenas, wild boar, porcupine and mongoose can be found in the region.
- Gambhir and Banganga are two rivers that flow through this National Park.

MISHTI Initiative for Mangroves

- The Union Budget 2023-24 announced a new initiative for mangrove plantations along the coastline and on salt pan lands - MISHTI (Mangrove Initiative for Shoreline Habitats & Tangible Incomes)
- Earlier, India joined the Mangrove Alliance for Climate launched during the UNFCCC COP27.
- Mangroves cover only about 0.1% of the planet's surface, they can potentially store up to 10x more carbon per hectare

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- According to India State of Forest Report (ISFR) 2021, India's total mangrove cover is 4,992 km² (0.15% of total geographical area)
- India lost 40% of its mangrove cover during the last century with Kerala losing 95% of its mangroves in the last 3 decades.
- Max Mangroves by area and % are West Bengal & Gujarat.

Aztec Hummingbirds and Indian Sunbirds

- A study found that the loss of a key gene, FBP2 makes hummingbirds more efficient at breaking down sugar to use it for energy.
- Hummingbird, native to American continent, are comparable to India's Sunbirds.
- Aztecs referred to them as Huitzilin or 'A ray of sun'
- Relative to their body mass, hummingbirds have the highest metabolic rate (calories burnt per minute) among vertebrates.
- Hummingbirds are capable of vocal mimicry like parrots and some songbirds.
- Indian Sunbirds, though unrelated to Hummingbirds share many common features through convergent evolution. They are part of Nectariniidae family.
- They are critical pollinators of the 'Flame of the Forest'.
- Flame of the forest is a leguminous tree, *Butea frondosa*, native to Eastern India and Myanmar, having hanging clusters of scarlet flowers.
- They live in tropical forests, inland wetlands, savannas, and scrubland in Africa, southern Asia, the Middle East, and northern Australia.

Rhododendron

- Recently, the Botanical Survey of India has published a new report titled 'Rhododendrons of Sikkim and Darjeeling Himalaya- An Illustrated Account'
- Rhododendron is a genus of flowering plants native to the temperate regions of Asia, North America, and Europe, as well as to the tropical regions of southeast Asia and northern Australia.
- They are known for their showy clusters of large, brightly coloured flowers, and many species are popular ornamental plants in gardens and parks.
- Rhododendrons are evergreen or deciduous shrubs or small trees, with woody stems and broad, leathery leaves.
- In India, Pink Rhododendron is the state flower of Himachal Pradesh, while Rhododendron arboreum is the state flower of Nagaland and the official State Tree of Uttarakhand.
- The report reveals that the Darjeeling and Sikkim Himalayas are home to more than one-third (34%) of all rhododendron types found in India
- Rhododendron is considered an indicator species for climate change.

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- Of the 45 taxa listed in the report, five are facing high threats due to anthropological pressures and climate change.

Teja Variety of Red Chilli

- The growing demand for the popular Teja variety of red chilli, famous for its culinary, medicinal and other wide-ranging uses, in the export market is proving to be a boon for the Khammam Agriculture Market, Telangana
- The huge demand for Oleoresin, a natural chilli extract, is mainly driving the export of Teja variety of red chilli
- This variety of red chilli is being exported to China, Bangladesh and a few other south Asian countries
- A large portion of the commodity is being exported to China

Snow Leopard

- A snow leopard has been sighted for the first time at a height of about 11,120 feet in the Darma valley in Uttarakhand's Pithoragarh
- Uttarakhand's Pithoragarh district. Snow leopards are also known as "Ghost of Mountains".
- They act as an indicator of the health of the mountain ecosystem in which they live, due to their position as the top predator in the food web.
- They are listed as vulnerable on the International Union for Conservation of Nature's (IUCN) Red List.
- They are listed in appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and Schedule-I of the Indian Wildlife Protection Act, 1972
- They have a vast distribution across Asia, which covers different parts of the Himalayas such as Ladakh, Himachal Pradesh, Uttarakhand, and Sikkim.

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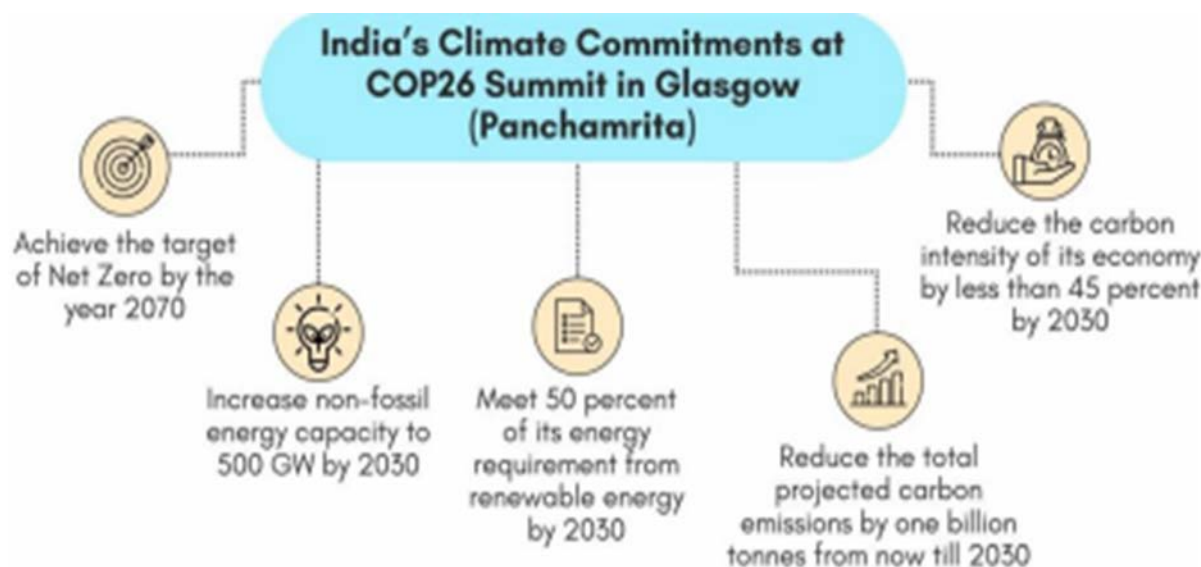
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India's Updated Nationally Determined Contributions

INDIA'S NATIONALLY DETERMINED CONTRIBUTION (NDC)				
Quantitative Targets				
	Targets for 2030	Previous NDC, 2015	Updated NDC, 2022	Progress
	1. Reduce the emissions intensity of its GDP	By 33 to 35% by 2030 from 2005 level.	By 45% by 2030 from 2005 level.	Estimated reduction of 28% over 2005 levels
	2. Cumulative electric power installed capacity from non-fossil fuel-based energy resources with the help of transfer of technology and low-cost international finance including from Green Climate Fund (GCF).	About 40%	About 50%	41.5% achieved by end of June, 2022
	3. Create an additional carbon sink through additional forest and tree cover.	2.5 to 3 billion tonnes of Co2 equivalent	Same as earlier	
Qualitative Targets				
	Previous NDC, 2015	Updated NDC, 2022		
	4. Put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation.	Put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation, including through a mass movement for 'LIFE'- 'Lifestyle for Environment' as a key to combating climate change.		
	5. Adopt a climate friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development.	Same as earlier		
	6. Better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management.	Same as earlier		
	7. Mobilize domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap.	Same as earlier		
	8. Build capacities, create domestic framework and international architecture for quick diffusion of cutting edge climate technology in India and for joint collaborative R&D for such future technologies.	Same as earlier		

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INDIA'S 31ST ELEPHANT RESERVE

- The new reserve has been notified as Agasthyamalai Elephant Reserve, covering Kanyakumari and Tirunelveli, in Tamil Nadu
- The Indian elephant is found in the central and southern Western Ghats, North East India, eastern India and northern India and in some parts of southern peninsular India
- The Indian elephant is included in Schedule I of the Indian Wildlife (Protection) Act, 1972 and in Appendix I of the Convention on International Trade in Endangered Species of Flora and Fauna (CITES).
- IUCN Status: Endangered ○ As per the last count in 2017, India has 29,964 elephants.
- Karnataka has the highest number of elephants (6,049), followed by Assam (5,719) and Kerala (3,054).
- India launched 'Project Elephant' in 1992. Under the project, the government provides technical and financial help to states to save elephants.

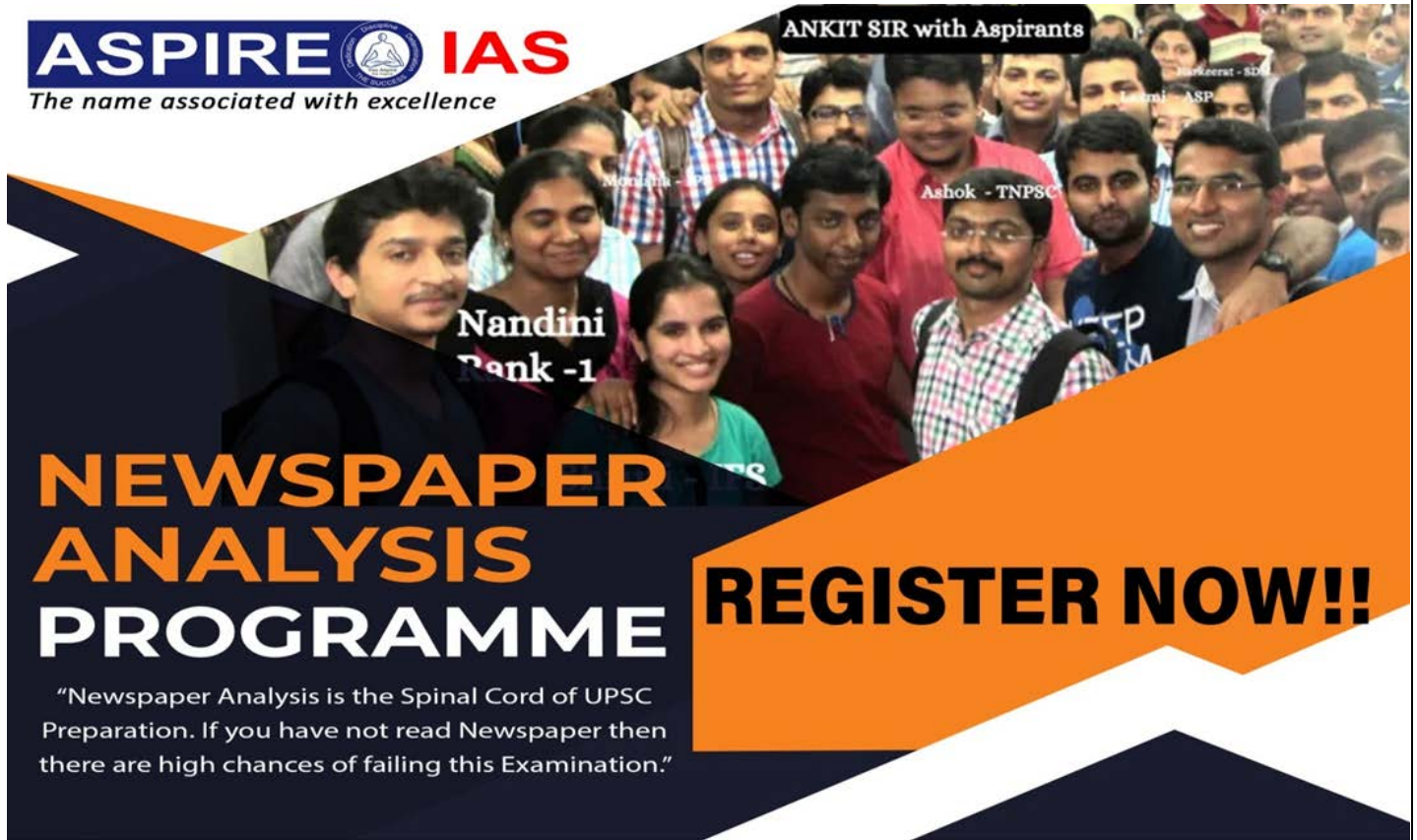
INDIAN VIRTUAL HERBARIUM

- IVH is a database of dried plants that maximizes the usefulness of the collections
- Herbarium specimens are considered important tools for plant taxonomy, conservation, habitat loss and even climate change.
- Developed by Botanical Survey of India (BSI). under Ministry of Environment, Forest & Climate Change

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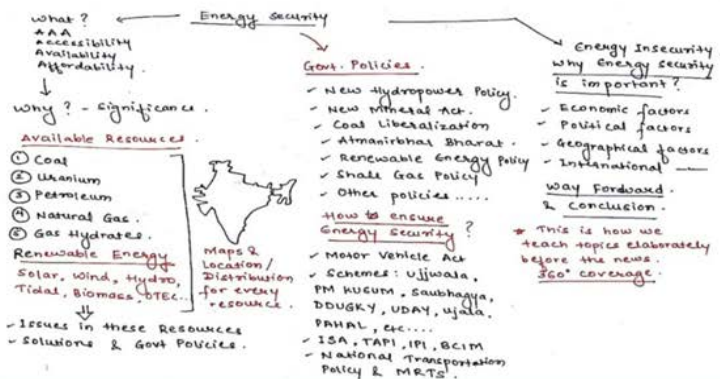


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Snailfish to Survive Sub-Zero Temperatures

- a study has found a Snailfish species in Greenland can survive in icy Arctic waters due to the presence of antifreeze proteins in its bloodstream.
- This feature, which is rare among sea organisms, allows snailfish to prevent ice crystals from accumulating in their cells and body fluid.
- The Snailfish releases biofluorescence, which allows it to glow green and red in the dark arctic waters.
- Snailfish is the only polar fish reported to have biofluorescence.
- Biofluorescence is the ability of an organism to convert blue light into green, red, or yellow light. □
- It is rarely found in Arctic fish due to prolonged periods of darkness in the region
- They are found all over the world, including in Antarctica

African Rhinoceros

- Recently, a report has stated that Rhino poaching rates in Africa have declined
- The report was compiled by the (IUCN), Species Survival Commission (SSC), African and Asian Rhino Specialist Group (AfRSG) and TRAFFIC.
- South Africa accounted for 90% of all reported cases, predominantly affecting white rhinos in Kruger National Park
- Zimbabwe conserves the largest population of African Rhinoceroses among the four range countries in Africa namely South Africa, Namibia, Kenya and Zimbabwe.
- Black rhinos are the smaller of the two African Rhino species. Black rhinos are browsers rather than grazers, and their pointed lip helps them feed on leaves from bushes and trees.
- They have two horns, and occasionally a third, small posterior horn.
- IUCN Red List: Critically Endangered & CITES: Appendix I
- White rhinos are the second largest land mammal after the elephant.
- Two genetically different subspecies exist, the northern and southern white rhino and are found in two different regions in Africa.
- IUCN Red List: Near Threatened

Tiger Reserve

- Max tigers are in Madhya Pradesh.

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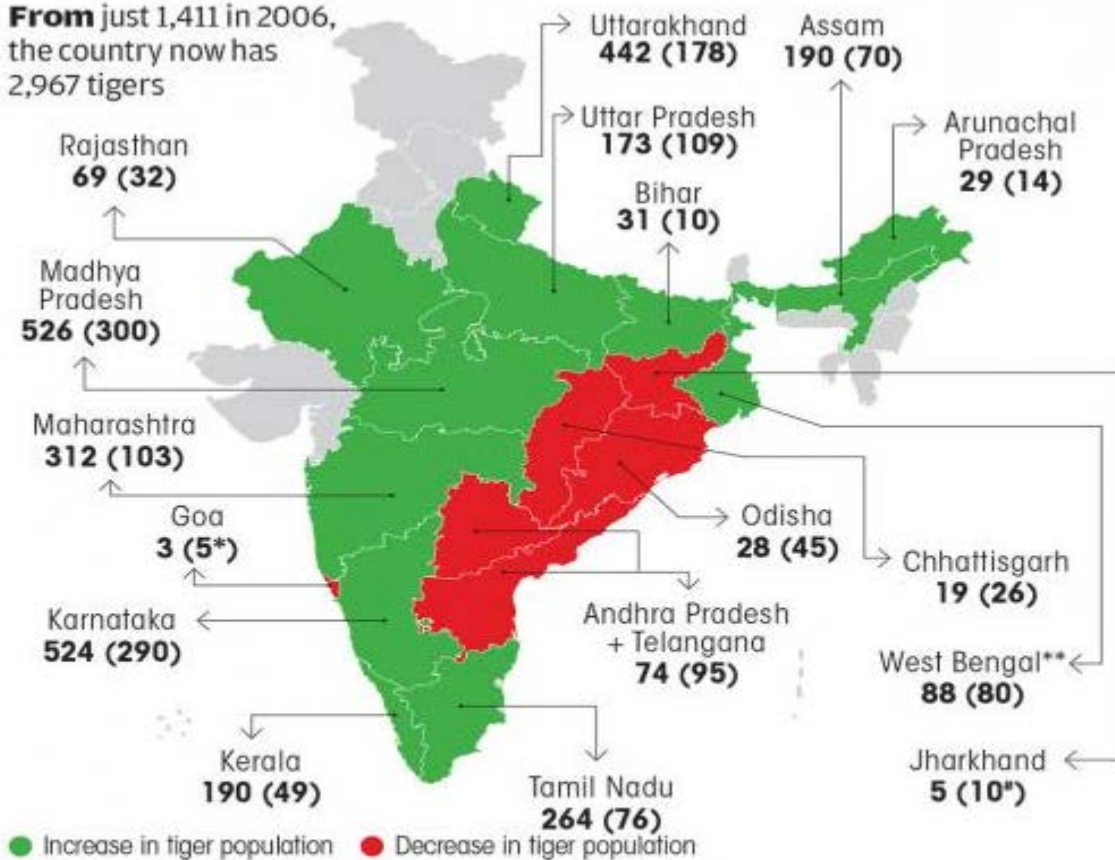
International Tiger Day

- 29th July is observed as International Tiger Day (ITD) to advocate a global system for protecting its natural habitats
- ITD was established in 2010 at St Petersburg Tiger Summit in Russia
- Largest: Nagarjunsagar Srisailem Tiger Reserve, Andhra Pradesh □
- Smallest: Bor tiger reserve in Maharashtra

[Tiger Reserves and Tiger Census UPSC - AspireIAS](#)

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From just 1,411 in 2006, the country now has 2,967 tigers



Tiger population in **2018 (2006)**

*The figure is for 2014; * The figure is for 2010; ** includes north West Bengal and Sunderbans; Sampling not done for Mizoram and Nagaland

Source: The Status of Tiger in India, 2018, Ministry of Environment, Forest and Climate Change

Tiger Census 2023

The Tiger Population in India 2023 is 3,167. On the 50th year of Project Tiger in India, Prime Minister, Narendra Modi shared the total number of Tiger Population in India. According to the latest census, the total number of tigers in India has seen a remarkable increase of 200, surging from 2,967 to 3,167 over the last four years.

The Prime Minister of India has released the figures of the 5th cycle of India's **Tiger Census 2022**, revealing 6.7% in the increase in the past four years.

- The tiger census **covered forested habitats in 20 states of India**. Camera traps were set up at 32,588 locations and generated 47,081,881 photographs.
- The PM has released the Census while inaugurating the **International Big Cat Alliance (IBC)** in Karnataka's Mysuru, organised to mark 50 years of **Project Tiger**.

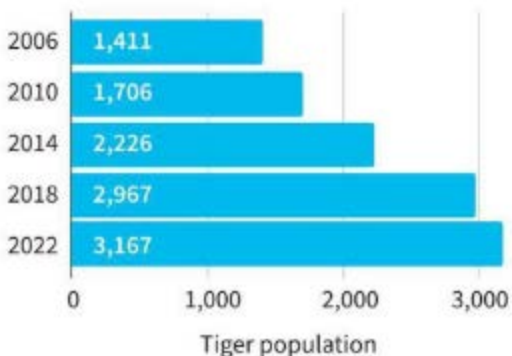
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What is the IBCA?

- IBCA is launched for conservation of seven big cats namely Tiger, Lion, Leopard, **Snow Leopard**, Leopard, **Cheetah**, Jaguar and Puma harbouring our planet.
- Its members include 97 countries that are home to these big cats and other interested parties.
- The IBCA will engage in **advocacy, partnerships, capacity building, eco-tourism, and finance tapping.**
- It will also disseminate information and create awareness among its members.

Big cat count

According to the data released by the PM, the number of tigers in India increased by 200 in the past four years. A look at the tiger population



Steady rise: A tiger at Van Vihar National Park in Bhopal on Sunday. PTI

Growth Rate: The growth rate slowed to 6.7% in the four years from 2018 to 2022, from **around 33% during 2014-2018.**

Increase: There has been a **significant increase in the tiger population in the Shivalik Hills** and Gangetic Plains, while tiger occupancy in Jharkhand, Odisha, Chhattisgarh, and Telangana showed a decline.

The North East Hills and **Brahmaputra Plains** had 194 tigers captured by camera traps, and the region's **Nilgiri cluster is the largest tiger population in the world**, contributing significantly to colonisation of tigers in neighbouring areas.

Decline: Tiger occupancy in the Western Ghats declined, the latest analysis showed. Significant declines were observed in the Wayanad landscape and in the Biligiriranga Hills.

High Conservation Priority: The genetically unique and **small population of tigers in Simlipal is also highlighted as being of high conservation priority.** The report calls for **ecologically viable economic development** and trans-boundary tiger conservation strategies to sustain isolated populations.

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“Project Tiger” started in India in 1973. There are presently 53 tiger reserves covering more than 75,000 sq km or over 2.4% of India’s total geographical area. In India, ***there were about 1,400 tigers in 2006, and that number increased to 3,000 in 2022.***

Tiger Census 2023

States Number of Tigers

Assam	190
Arunachal Pradesh	29
Andhra Pradesh	48
Bihar	31
Chhattisgarh	19
Goa	03
Jharkhand	05
Karnataka	524
Kerala	190
Madhya Pradesh	526
Maharashtra	312
Odisha	28
Rajasthan	91
Tamil Nadu	264
Uttarakhand	442
Uttar Pradesh	173
West Bengal	131

The national tiger census is **done every four years by the National Tiger Conservation Authority (NTCA)** in partnership with state forest departments, conservation NGOs, and the Wildlife Institute of India (WII). The census uses a

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double sampling method based on ground-based surveys and images from camera-traps.

Habitat: Its habitat stretches from Siberian temperate forests to subtropical and tropical forests on the Indian subcontinent and Sumatra. It is the largest cat species and a member of the genus *Panthera*. Traditionally eight subspecies of tigers have been recognized, out of which three are extinct.

- **Bengal Tigers:** Indian Subcontinent
- **Caspian tiger:** Turkey through central and west Asia (extinct).
- **Amur tiger:** Amur Rivers region of Russia and China, and North Korea
- **Javan tiger:** Java, Indonesia (extinct).
- **South China tiger:** South central China.
- **Bali tiger:** Bali, Indonesia (extinct).
- **Sumatran tiger:** Sumatra, Indonesia.
- **Indo-Chinese tiger:** Continental south-east Asia.

Protection Status:

- **Indian Wildlife (Protection) Act, 1972: Schedule I**
- **International Union for Conservation of Nature (IUCN) Red List: Endangered.**
- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I.**

National Tiger Conservation Authority (NTCA): It is a statutory body under the MoEFCC and was established in 2005 following the recommendations of the Tiger Task Force. NTCA has been constituted under section 38 L (1) of Wildlife (Protection) Act, 1972.

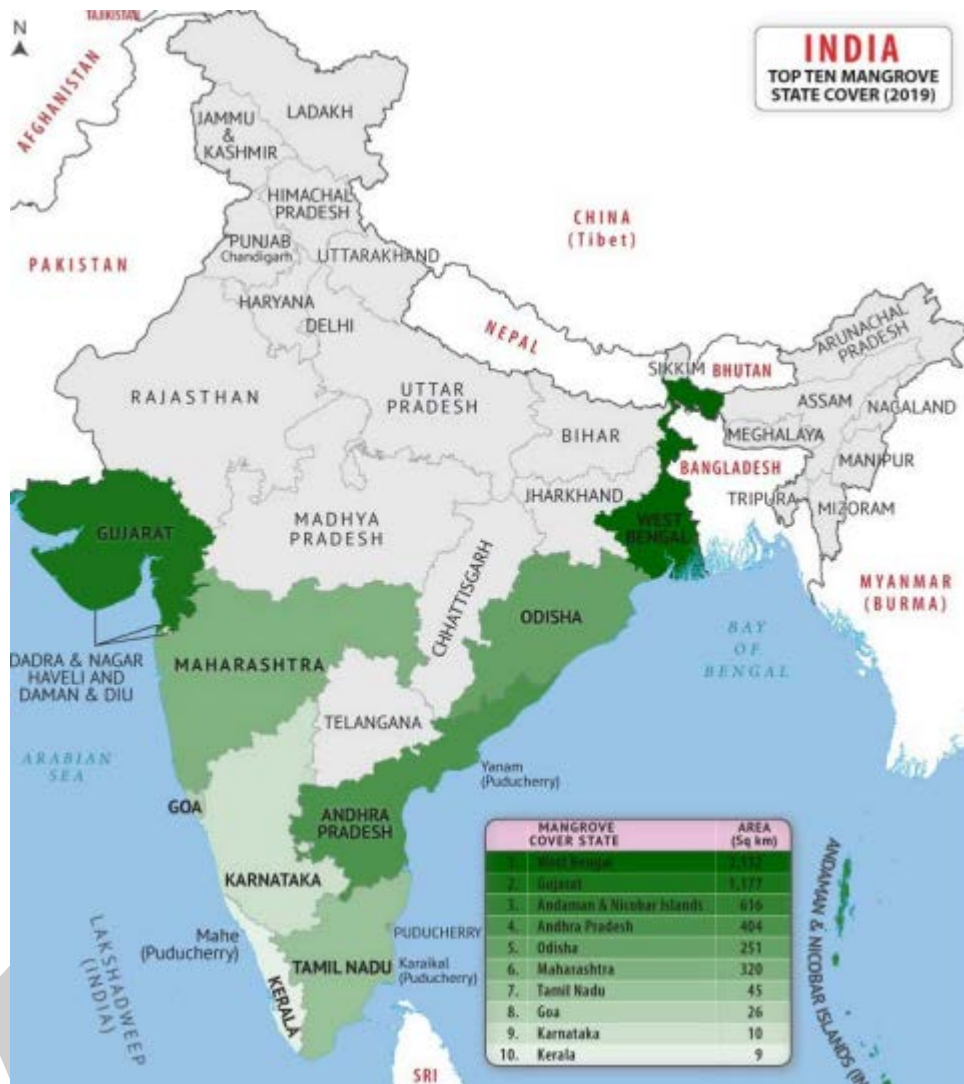
Peninsular Rock Agama

- The Peninsular Rock Agama is a type of garden lizard in southern India. □
- This lizard is a large animal, strikingly coloured in orange and black. □
- They do not generate their own body heat, so they need to seek warmth from external sources like a warm rock or a sunny spot on the wall.
- It is majorly found in India
- It belongs to the Precocial Species.
- Precocial species are those in which the young are relatively mature and mobile from the moment of birth or hatching.
- IUCN Red List: Least Concern

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Loss of Mangrove Cover on Katchal Island: A study by the National Aeronautics and Space Administration (NASA), highlighted the loss of mangrove cover on Katchal island.

[Declining Mangrove Cover NASA STUDY - AspireIAS](#)



RANIPUR TIGER RESERVE

- UP cabinet approved the notification of state's fourth (Dudhwa, Pilibhit and Amangarh are remaining 3) tiger reserves in Ranipur Wildlife Sanctuary in Chitrakoot

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- It was notified under Section 38(v) of Wildlife (Protection) Act, 1972 that enlists terms and conditions for relocation of Scheduled Tribes or other forest dwellers for creating tiger reserves.
- RTR is located in Bundelkhand and has tropical dry deciduous forests and is home to fauna such as tigers, leopards, sloth bears, etc

NEELAKURINJI

- Neelakurinji/ Kurinji flower has bloomed in Chandradrona mountains in Chikkamagaluru (Karnataka) after 12 years
- It is endemic to Western ghats generally bloom in the regions of Tamil Nadu, Kerala & Karnataka.
- It grows at an altitude of 1,300 to 2,400 meters. ○ Its blooms once every 12 years season.
- However, blooming seasons have become unpredictable over the years due to changing weather patterns

Sea Turtle Poaching

- More than 1.1 million sea turtles have been illegally killed and, in some cases, trafficked from 1990 to 2020.
- The sea turtle species that faced the most exploitation in the 30-year-period were Green (56%) and Hawksbill Sea Turtles (39%)
- Southeast Asia and Madagascar were major hotspots for illegal sea turtle trade
- Sea turtles are marine reptiles including Hawksbill, Loggerhead, Leatherback, Green and Olive ridley turtle.
- These five species are found worldwide, mainly in tropical and subtropical waters.
- Kemp's Ridley is found mainly in the Gulf of Mexico and the Flatback Turtle around northern Australia and southern Papua New Guinea
- The International Union for Conservation of Nature (IUCN) Status:
- Flatback Turtle: Data Deficient
- Green Turtle: Endangered
- Hawksbill Turtle: Critically Endangered
- Kemp's Ridley: Critically Endangered
- Loggerhead Turtle: Vulnerable
- Olive Ridley: Vulnerable
- Leatherback Turtle: Vulnerable □
- All seven species of sea turtles are currently listed as Appendix- I under CITES

http://www.wwfenvis.nic.in/Database/BiosphereReservesinndia_4547.aspx

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Asiatic Caracal

- Caracal, which was used by India's nobility in the sport of coursing like the cheetah, is struggling to survive
- The Asiatic caracal is a medium-sized and locally threatened cat species, reported to be on the brink of extinction in India
- It is also known by its persian name Siyahgosh or 'black ears
- They are found mostly in Rajasthan, Gujarat and Madhya Pradesh and are located in Kutch, the Malwa Plateau, the Aravalli hill range
- Besides India, the caracal is found in several dozen countries across Africa, the Middle East, Central and South Asia
- It occurs in semi-deserts, steppes, savannah, scrubland, dry forest and moist woodland or evergreen forest.
- IUCN Red List: Least Concern
- Wildlife Protection Act, 1972: Schedule I
- CITES: Appendix I

White Fly

- There has been a rise in the number of white fly attacks on cotton in various states like Punjab and Rajasthan
- Whitefly is a serious pest of cotton that lowers yield by feeding on the underside of the leaf and spreading diseases like Cotton Leaf Curl Virus
- They feed on the sap of the leaves and release fluid onto the leaves on which a black fungus grows, this affects photosynthesis
- The first reported invasive spiralling whitefly is now distributed throughout India.
- Most of the whitefly species are native to the Caribbean islands or Central America.
- Approximately 1.35 lakh hectares of coconut and oil palm in India are affected by the rugose spiralling whitefly

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All the Best to all my Economics students...
Hope this material will help you.
God bless...
Jai Hind

ASPIRE IAS