



- ENVIRONMENT
- Part 3

Ban on Fire Crackers

- The air quality deteriorates after Diwali due to fire crackers. Sulphur in fire crackers causes major damage. Sulphur on combustion produces sulphur dioxide which is harmful to health.

Fluorosis

- Fluorosis occurs when young children get too much fluoride, over an extended period of time. Dental fluorosis is a minor change in the appearance of the teeth, usually resulting in faint white marks on the enamel. Using too much of toothpaste can cause fluorosis.

Jim Corbet National Park

- The major portion of Corbett is situated on the bank of Rivers Kosi and Ramganga. Located in Nainital district of Uttarakhand.

Jim Corbett National Park is the oldest national park in India. It was established in 1936 as Hailey National Park. This park was the first park under Project Tiger.

- It has 488 different species of plants.
Fauna: 50 species of Mammals, 580 Birds and 25 species of reptiles.
- Area: 520 Square Km
- Forest: Moist Deciduous- sal, haldu, peepal, rohini and mango. Forest cover 73%

Jim Corbet National park

- Corbett National Park is one of the 13 protected areas covered by the World Wide Fund For Nature under their Terai Arc Landscape Program.

The program aims to protect three of the five terrestrial flagship species, the tiger, the Asian elephant and the great one-horned rhinoceros, by restoring corridors of forest to link protected areas of Nepal and India, to enable wildlife migration

Kaziranga national Park

- Kaziranga National Park is a national park in the Golaghat and Nagaon districts of the state of Assam. The sanctuary hosts two thirds of the world's great one horned rhinoceroses.
It is a world Heritage site.
- It also has wild water buffaloes and Swamp Deer. It is situated on the banks of river Brahmaputra
It has the area of 430 sqkm.
The sanctuary has four different kinds of vegetation. The tropical moist mixed deciduous forest, Tropical semi evergreen forest, tall grasses and also short grasses.

Fluoride

- Fluoride is an important mineral for everyone, especially children. We all have bacteria in our mouth. Bacteria produce acid that harms teeth. Fluoride protects teeth and helps reverse early sign of decay.

Forest Types of India

- Wet Evergreen forest Semi Evergreen forest Dry Evergreen forest Moist Deciduous forest Dry Deciduous forest Mangrove forest
- Thorn Forest
Sub tropical broad leaved forest

Green Corridors

- Green corridor refers to a special road route that enables harvested organs meant for transplants to reach the destined hospital. The street signals are manually operated to avoid red lights and peak traffic to ensure earliest arrival. The organs of brain dead persons are transported and given to patients who need them.

Biogas

- Biogas typically refers to a mixture of different gases produced by the breakdown of organic matter in the absence of oxygen. Biogas can be produced from raw materials such as agricultural waste, manure, municipal waste, plant material, sewage, green waste or food waste.

Biogas is a renewable energy source.

Bharat V

- India will implement the Bharat Stage-V or BS-V, emission norms for vehicles across the country from 2019. Bharat stage norms, based on European regulations, are emission standards decided by the government to regulate the amount for air pollutants from vehicles.
- The problem in implementation are: increase in vehicle cost due to improved technology and higher fuel prices.
- However the higher cost will be offset by savings in health costs for the public , as there will be lesser amount of disease causing particulate matter and pollution in the air. Exposure to air pollution can lead to respiratory and cardiovascular diseases, which is estimated to be the cause for 6.2 lakh early deaths in 2010.
- The health cost of air pollution in India has been assessed at 3% of its GDP.

Noise Pollution

- Noise pollution (Environmental noise) is propagation of noise which can have harmful impact on the activity of human life. The source of outdoor and indoor noise:
 - a) Machines
 - b) Transport & Transport System
 - c) music
 - d) Construction Activity
 - e) Electricity Generators
 - f) People yelling (sports games)

As per WHO permissible limit for Residential areas is up to 50 dB.

Noise Pollution

- Noise pollution affects both health and behavior. Noise pollution can cause hypertension, high stress levels, tinnitus, hearing loss, sleep disturbances and other harmful effects. High noise levels can contribute to cardiovascular effects in humans and an increased incidence of coronary artery disease.
- Noise poses a serious threat to a child's physical and psychological health, and may negatively interfere with a child's learning and behavior.
Noise-induced hearing loss can be caused by prolonged exposure to noise levels above 85 dB
- Noise pollution affects animals equally.
- India has rules & regulations against firecrackers and loudspeakers.

National Green Tribunal

- The National Green Tribunal has been established on 18.10.2010 under the National Green Tribunal Act 2010.
- Objective: to handle the expeditious disposal of the cases pertaining to environmental issues.

It draws inspiration from the India's constitutional provision of Article 21, which assures the citizens of India the right to a healthy environment.

The tribunal consist of a full time Chairperson, Judicial members and expert members.

National Green Tribunal

- The minimum number of judicial and expert member prescribed is ten in each category and maximum number is twenty in each category.
- A judge of the Supreme Court of India or Chief Justice of High Court are eligible to be Chairperson or judicial member of the Tribunal.
- Tribunal is competent to hear cases for several acts such as:
 - Forest (Conservation) Act
 - Biological Diversity Act
 - Environment (Protection) Act
 - Water and Air (Prevention & Control of Pollution) Acts.

Sterlite Plant Issue Tutukudi

- There is a Sterlite Plant in Tutukudi, Tamil Nadu. The plant was shut down after violent protests by local people for environmental pollution of their farmland and habitats, drinking water facilities.¹³ People died in police firing. Tamil Nadu ordered the closure of the plant citing pollution concerns on May 28, 2018.
Bench of Green Tribunal set aside the closure order of Tamil Nadu Pollution Control Board.
- Sterlite Company has offered to invest 100 Crore in social welfare schemes in villages around Tuticorin over three years.

Plastic Bag Ban

- In India per capita of consumption of plastic is 24 pounds compared to 240 pounds in the US. Every day , India generates 33.1 million pounds of plastic waste of which only 19.8 million pounds are collected and recycled.
- Uncollected plastic pollute water, clog drains, kill cows and degrade soil.
- Government has announced that India will “eliminate all single use plastics from our beautiful country.”
- Those caught using or selling plastics could have imposed fine up to 25,000 Rs.and three months jail for repeat offenders.
- PM has said called plastic a “menace to humanity.”

Olive Ridley Turtle

- The olive ridley sea turtle, also known as the Pacific ridley sea turtle are the smallest and most abundant of all sea turtles found in the world. This species of sea turtle is found in warm and tropical waters, primarily in the Pacific and Indian Oceans.
- These turtles are best known for their unique mass nesting called ARRIBADA, where thousands of females come together on the same beach to lay eggs. They grow to about 2 feet in length. They have olive colored carapace, have broad head that appears triangular from above. It has paddle-like fore limbs.

Olive Ridley Turtle

- In the Indian ocean, the majority of olive ridleys nest in two or three large groups near Gahirmatha in Odisha. The coast of Odisha in India is the largest mass nesting site for the olive ridley, followed by the coast of Mexico and Costa Rica.
- In 1991 over 6lakh turtles nested along the coast of Odisha in one week.
- They lay their eggs in conical nests about one and a half feet deep, which they laboriously dig with their hind flippers.

Olive Ridley Turtle

- Gahirmatha Beach in Kendrapara district of Odisha. It is part of the Bhitarkanika Wildlife Sanctuary is the largest breeding ground for these turtles.
- The olive ridley is exploited for food, bait, oil, leather and fertilizer. The eggs are eaten.
- The olive ridley is classified as vulnerable according to the IUCN.

Most Endangered Species in India

- 1. One Horned Rhinoceros
- 2. Nilgiri Tahr
- 3. Bengal Tiger
- 4. Asiatic Lion
- 5. Black Buck
- 6. Lion tailed Macaque
- 7. Snow Leopard

Endangered Animals Found Only in India

- Andaman White-toothed Shrew
- Asiatic Lion
- Hard-ground Barasingha (Swamp Dear)
- Kashmir stag
- Lion tailed Macaque
- Malabar Civet
- Namdapha Flying Squirrel
- Nilgiri Tahr
- Pygmy Hog
- Tiger Toad

World Smallest Frog-Night Frog

- Night frogs discovered recently by Indian scientists, live in the Western Ghats. They are 12 millimeter long. They always hiding under thick ground vegetation and leaf litter. Small enough to sit on fingernail.

They are found only in India's biodiverse Western Ghats region.

They are already under threat of extinction.

The smallest of frog (Vertebrate) is Paedophryne amauens of Papua New Guinea is 7.7 millimeter long (0.27 inches).

- Largest frog in the world is goliath frog. It grows up to 12.5 inches long and can weigh up to 3.3 kg.

National Water Awards

- Instituted by Union Ministry for Water Resources
- Objective: to encourage all stake holders to manage their water resources efficiently and create water consciousness in the country
- Innovating practices of ground water augmentation by rain water harvesting
- Efficient use of water: recycling
- Best State, Best District, Best Village Panchayat, Best Municipal Corporation, Best Research, Best educative and mass awareness campaign etc.

Water as a Resource

- Earth is 70% water
- Only 2.5% is fresh water
- Only 1% is available for use
- Uses: drinking, irrigation, sanitation, industrial use.
- A small family with four persons consumes around 960 litres of water everyday
- It is estimated 3 billion people will face shortage of fresh water by 2025
- Every 15 seconds a small child is dying of water born disease

CITES

- Convention on International Trade in Endangered Species of wild Fauna and Flora
- It is an international agreement between governments.
- Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival
- Controls the transfer of wild life products between member countries
- Signed March 3 1973 Effective: 1 July 1975
- Parties 183 Location Washington DC
- From India - Trade in over 1800 species banned
Rhino horn ₹ 3 Lakh , Ivory \$ 2100/kg

National Green Tribunal Fined Delhi Government

- NGT fined Delhi Govt. 25 Crore for failing to take action to curb pollution in the capital despite clear instructions.
- NGT Chairperson: Justice Adarsh Kumar Goel
- NGT had given the direction to Govt. to control the practice of open burning in industrial area around Mundka in West Delhi.

- Thank you