

INDIANS ARE CHOKING ON POLLUTION. HOW CAN IT BE STOPPED?

Context

- In a recent report from the Air Quality Life Index (AQLI), it was estimated that the average Indian is losing 5.3 years of life expectancy due to the adverse health effects of air pollution.
- Beyond the grim statistics of early deaths, air pollution also inflicts a heavy toll in the form of disability and chronic illnesses. This is a serious impact on public health in India.

The Situation of Air Pollution in India

- **Dire Situation in Delhi - the National Capital**
 - The situation is even worse in Delhi, where the estimated loss of life expectancy due to air pollution is a staggering 11.9 years.
 - Delhi consistently ranks as one of the most heavily polluted cities in the world, often sharing this unfortunate distinction with Wuhan and Lahore, which occasionally take the spotlight for their high levels of carbon pollution.
- **Widespread Problem in Indian Cities:** In a 2022 list of the 50 most polluted cities put out by IQAir, a Swiss air quality information platform, 39 of them are from India.
- **Even Rural Areas Are Not Free of Air Pollution:** Because of dust from unpaved roads and smoke from burnt biomass fuels, rural areas too are not free of pollution.

Broader Health Concerns Arising from Air Pollution

- **Acute Effects**
 - Acute effects like burning eyes, irritation of nose and throat, cough and feeling of choked breath are irritating.
 - Serious harm can arise such as heart attacks and brain strokes caused by atherosclerotic plaques in blood vessels are disrupted by the pollutants, thereby triggering blood clots.

Ways Ahead to Improve the Air Pollution Levels in India

- **Bring National Air Quality Standards Close to WHO Standards**

- **It must be recognised** that health harms from air pollution occur at even lower levels than the national standard.
- **India must aim to bring them as close to the WHO standards as possible.**
- **Assessment of Emission Source Distribution and Population Exposure**
- Air pollution in India has diverse sources, **both outdoors and indoors.**
- Outdoor pollution is primarily due to particulate matter, originating from vehicles, power plants, factories, garbage dumps, etc.
- **Diesel emissions and dust from roads and construction sites are constant contributors**, while seasonal factors like stubble burning exacerbate the issue.
- **Broader Measures Required than Mere Personal Protections**
- **Personal protection measures have only a limited impact.** Air purifiers work only in a closed room and may be best used to protect persons who are confined there because of severe illness or disability.
- **More than these measures, the protection will come from** clean transport (like EVs), increased use of public transport in place of personal vehicles, rapid transition to renewable energy sources from fossil fuels, cessation of stubble and garbage burning, good construction practices and efficient debris disposal.
- **Household air pollution** is being addressed through the substitution of biomass with natural gas and better ventilation of kitchens.

WHAT IS SIM-SWAP SCAM?

A Delhi-based advocate recently became the latest victim of the SIM-Swap Scam after she received three missed calls from unknown numbers and lost money from her bank account.



About the SIM-Swap Scam:

- All banking applications are linked to phone numbers, which help in generating OTPs (to authenticate transactions) or receiving important bank-related messages.
- In the SIM swap scam, fraudsters first take personal details such as phone numbers, bank account details, and addresses with the help of phishing or vishing.

- After receiving the personal information, **fraudsters visit the mobile operator's retail outlet, posing as the victim with forged ID proof, and report a fake theft of the victim's SIM card and/or mobile phone.**
- By doing this, **they attain a duplicate SIM.**
- Notably, **scamsters can get a duplicate SIM even when the original is working, as they reported a theft of the original SIM card.**
- Unlike other scams, where scamsters trick people into giving OTPs and private information on a phone call, the **SIM swap scam doesn't require direct communication with the victims.**
- **However, fraudsters do give missed calls to their victims so that the latter leave their phones and ignore the lost network connectivity.**
- **When the SIM is swapped, the accused gains control of the entire SIM. All calls and messages go through their SIM only.**
- Once in control of the SIM card, **they are able to obtain passwords and OTPs that allow them to access their targets' bank accounts.**

What is phishing?

- Phishing is a technique in which **scamsters send malware links to victims through mail or messages.**
- **Once the link is opened, the malware steals all of the victim's personal information.**

CITIZENS RIGHT TO KNOW SUBJECT TO REASONABLE RESTRICTIONS - CENTRE TO SC ON ELECTORAL BONDS

Why in news?

- A five-judge bench of the Supreme Court led by CJI will start hearing petitions challenging the constitutional validity of the Centre's electoral bonds scheme from October 31.
- In response to these petitions, the Centre's affidavit told the apex Court that citizens' right to know is subject to reasonable restrictions.

What are Electoral bonds (EBs)?

- **About**

- Electoral bonds are a financial instrument introduced by the Government of India in 2018 to facilitate anonymous political donations.
- An electoral bond is a bearer instrument, like a promissory note, that is payable to the bearer on demand to donate their contributions to political parties.

- **Who are eligible to receive electoral bonds?**

- Only registered political parties are eligible to receive electoral bonds.

- **Available denominations**

- The Government of India has specified various denominations for electoral bonds, ranging from Rs. 1,000 to Rs. 1 crore.

- **Authorized bank**

- **SBI** is the only bank authorised to sell these bonds.

- **Working**

- A citizen of India or a body incorporated in India is eligible to purchase the bond.
- EBs are issued/purchased for any value, in multiples of Rs 1,000, Rs 10,000, Rs 1,00,000, Rs 10,00,000 and Rs 1,00,00,000 from the specified branches of the State Bank of India (SBI).
- EBs have a life of only 15 days during which it can be used for making donation only to the registered political parties.
- The bonds shall be available for purchase for a period of 10 days each in the months of January, April, July and October as may be specified by the Central Government.
- The political parties have to disclose the amount to the Election Commission.

What is the Rationale behind the introduction of EB?

- **Encouraging Digital Transactions:**
- **Anonymity of Donors:**
- **Formalizing Political Contributions:**
- **Enhancing Transparency:**

Criticisms of Electoral Bond

- **Lack of Transparency:**
 - While the scheme requires political parties to disclose the amount of donations received through electoral bonds, the identity of the donors remains anonymous.
- **Potential for Money Laundering:**
 - Critics argue that the anonymity provided by electoral bonds can be misused for money laundering or routing black money into the political system.
- **Unequal Advantage to Ruling Parties:**
 - The fact that such bonds are sold via a government-owned bank (SBI) leaves the door open for the government to know exactly who is funding its opponents.
 - This, in turn, allows the possibility for the government of the day to either extort money, especially from the big companies, or victimise them for not funding the ruling party.
- **Bypassing Election Commission Scrutiny:**
 - Unlike other forms of political funding, electoral bonds do not require ECI approval or verification, which can undermine the ECI's oversight role in regulating political funding and ensuring a level playing field.
- **No upper limit on funding**
 - Before the electoral bonds scheme was announced, there was a cap on how much a company could donate to a political party: 7.5 per cent of the average net profits of a company in the preceding three years.
 - However, the government amended the Companies Act 2013 to remove this limit, opening the doors to unlimited funding by corporate India.

Concerns raised by RBI and EC

- RBI and the ECI have raised concerns about electoral bonds. They said that electoral bonds could:
 - Increase black money circulation, money laundering, cross-border counterfeiting, and forgery;
 - Set a bad precedent by encouraging money laundering and undermining faith in Indian banknotes;

- Erode a core principle of central banking legislation;
 - Legitimize opacity in how elections are funded;
 - Become vehicles for money laundering for shell companies and foreign donations.
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WHAT IS HAEMOGLOBIN (HB)?

A recent discovery has revealed that haemoglobin isn't used by red blood cells (RBCs) alone.



About Haemoglobin (Hb):

- It is an **iron-containing protein found in the red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues back to the lungs.**
- It is **made up of four protein molecules (globulin chains) that are connected together.**
- Haemoglobin **forms an unstable, reversible bond with oxygen. In the oxygenated state, it is called oxyhemoglobin and is bright red; in the reduced state, it is purplish blue.**
- It also plays an **important role in maintaining the shape of the RBCs.** In their natural shape, RBCs are round with narrow centers resembling a donut without a hole in the middle. **Abnormal haemoglobin structure can, therefore, disrupt the shape of RBCs and impede their function and flow through blood vessels.**
- Haemoglobin levels **vary from person to person. Men usually have higher levels than women.**

What does a low haemoglobin level mean?

- A low haemoglobin level is referred to as **anemia or low red blood count.**
 - A **lower than normal number of RBCs is referred to as anemia and haemoglobin levels reflect this number.**
 - Some of the more **common causes of anemia are:**
 - **loss of blood** (traumatic injury, surgery, bleeding, colon cancer, or stomach ulcer),
 - **nutritional deficiency** (iron, vitamin B12, folate),
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- If an ice shelf thins or disappears, these glaciers tend to speed up, discharging more ice into the ocean and causing sea level rise.
- Both ice shelves and ice sheets are different from sea ice, which is the free-floating ice that surrounds the polar regions.
- Sea ice is created by sea water freezing.

Way forward

- According to the researchers, the melting West Antarctic ice sheet is just one contributor to sea level rise, which is just one impact of climate change.
- There are many other impacts which we can still avoid or limit: like the loss of the East Antarctic Ice Sheet, or the severity of heatwaves, droughts, and extreme rainfall.

RAJAJI TIGER RESERVE

The Uttarakhand government recently decided to establish Rajaji Tiger Reserve Conservation Foundation to accelerate the ecological, economic, social, and cultural development of the landscapes in and around the reserve.



About Rajaji Tiger Reserve:

- **Location:**

- Rajaji Tiger Reserve (earlier Rajaji National Park) is located in the Shivalik range of the Himalayas and spread over 820 kms.
- It covers a part of over **three districts of Uttarakhand:** Haridwar, Dehradun, and Pauri Garhwal.
- It was **named after** the famous freedom fighter **Rajgopalachari**, popularly known as "**Rajaji**".
- **The park was created** in 1983 by the **amalgamation of three sanctuaries:** **Rajaji Sanctuary** and National park (estd. 1948), **Motichur Sanctuary** (estd. 1964), and **Chilla sanctuary** (estd. 1977).
- On 20 April 2015, its name was changed to Rajaji Tiger Reserve.
- It is **famous as an elephant habitat**, as there are around 600 elephants in Rajaji.

- It's location in a **transition zone between temperate western Himalaya and central Himalaya** enhances the species diversity.

Vegetation: The area is covered with **diverse forest types** ranging from **semi-evergreen to deciduous** and from **mixed broad-leaved to Terai grassland** and has been classified as **Indus-Ganges Monsoon Forest type**.

Flora:

- Lofty strands of **Sal trees** (Shorea Robusta) **dominate most parts** of the reserve.
- Other popular flora found here include **Rohini, Palash, Shisham, Sal, Sandan**, Khair, Arjun, Baans, Semul, Chamaror, etc.

Fauna: It has a **sizeable population of Tiger and Asian Elephants**. It is home to a variety of wild animals like **Leopard, Jungle cat, Himalayan Black Bear**, Sloth Bear, Striped Hyena, Goral, Sambar, Wild Pig, Spotted Deer, Barking Deer, etc.
