

## UPSC CURRENT AFFAIRS NOTES 25-03-2024

### Arsenic

A new study underlines the risk of using water contaminated with arsenic to cook rice, a staple food serving more than half the world's population.

#### About Arsenic

It is a naturally occurring, semi-metallic element widely distributed in the Earth's crust.

It is widely distributed throughout the environment in the air, water and land.

It is a chemical element in the nitrogen group (Group 15 of the periodic table), existing in both gray and yellow crystalline forms.

It is highly toxic in its inorganic form.

People are exposed to elevated levels of inorganic arsenic through drinking contaminated water, using contaminated water in food preparation and irrigation of food crops, industrial processes, eating contaminated food and smoking tobacco.

Health Impacts: Long-term exposure to inorganic arsenic, mainly through drinking-water and food, can lead to chronic arsenic poisoning. Skin lesions and skin cancer are the most characteristic effects.

In India, the states of West Bengal, Jharkhand, Bihar, Uttar Pradesh, Assam, Manipur and Chhattisgarh are reported to be most affected by arsenic contamination of groundwater above the permissible level.

### World Tuberculosis (TB) Day

World Tuberculosis (TB) Day is celebrated on March 24 annually to spread awareness around the deadly disease.

#### About World Tuberculosis (TB) Day

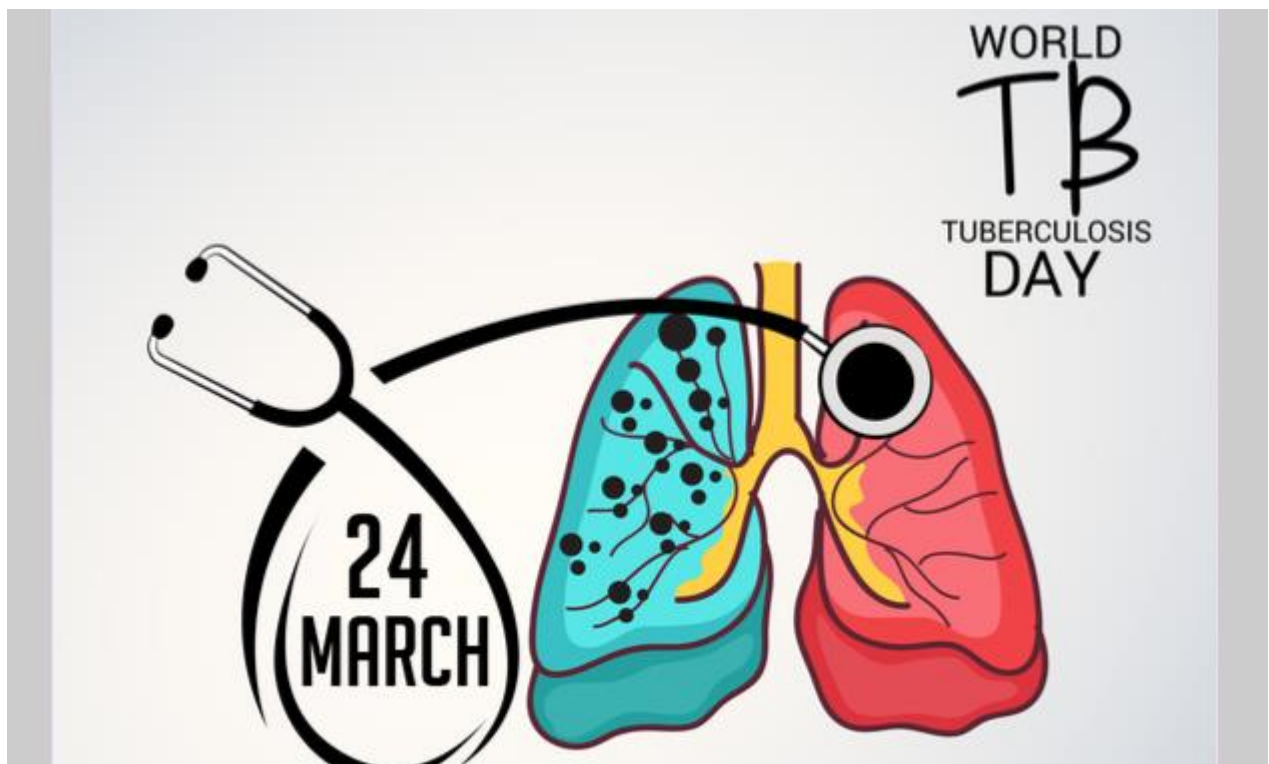
It is celebrated to raise awareness around the disease, increase efforts to eradicate the disease, and mobilise support for those affected by TB.

## Background

March 24, 1882 is considered a significant date in the battle against tuberculosis as it is on this day that Dr Robert Koch discovered the bacteria that causes TB.

This groundbreaking announcement led to better understanding, diagnosis, and eventual treatment of the disease.

It was not before the year 1982, on the centenary of Dr. Koch's discovery that the International Union Against Tuberculosis and Lung Disease (IUATLD) proposed observing March 24 as World TB Day to raise awareness about TB and its global impact.



The first World TB Day was officially observed in 1983, and since then, it has become an annual event.

Theme of World Tuberculosis day 2024: “YesA! We can end TB”.

Significance of the day: World Tuberculosis Day aims to unite governments, health organizations, and communities worldwide in their commitment to end the TB epidemic by ensuring access to quality care for all those affected.

## What is Tuberculosis?

It is a bacterial infection spread through inhaling tiny droplets from the coughs or sneezes of an infected person. Mycobacterium tuberculosis bacteria is responsible for TB.

It mainly affects the lungs, but it can affect any part of the body, including the tummy (abdomen), glands, bones and nervous system.

TB is a potentially serious condition, but it can be cured if it's treated with the right antibiotics.

It occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death.

## Gulf of Mannar

A recent study concluded that coral cover in the Gulf of Mannar region had declined from 37% in 2005 to 27.3% in 2021.



### About Gulf of Mannar

Along the southeast coast of India lies the Gulf of Mannar, a part of the Laccadive Sea of the Indian Ocean, containing 21 islands.



It spans a total distance of around 125 miles in breadth and 100 miles in length between the northwest coast of Sri Lanka and the southeast coast of India.

It is bounded to the northeast by Rameswaram (island), Adam's (Rama's) Bridge (a chain of shoals), and Mannar Island.

It receives several rivers, including the Tambraparni (India) and the Aruvi (Sri Lanka).

The port of Tuticorin is on the Indian coast. The gulf is noted for its pearl banks and sacred chank (a gastropod mollusk).

### Key facts about the Gulf of Mannar Marine National Park

The Gulf of Mannar is one of the biologically richest coastal regions in all of the mainland of India.

It is the first Marine Biosphere Reserve in South and South East Asia.

In India, the Gulf of Mannar region in Tamil Nadu is one of the four major coral reef areas, and the others are the Gulf of Kutch in Gujarat, Lakhsadweep and Andaman and Nicobar Islands.

It is designated as a Biosphere Reserve.

This Biosphere Reserve encompasses a chain of 21 islands (2 islands already submerged) and adjoining coral reefs off the coasts of the Ramanathapuram and Tuticorin districts. The Gulf is a portion of the sea that is almost surrounded by land except one narrow opening. Gulfs are formed when a giant rock collapses or when a piece of land sinks. This causes a big indentation in the area, and the water eventually fills it up. Gulfs are also formed through a natural process of erosion.

## Vote-from-Home

The Election Commission of India (ECI) has, for the first time in the history of the Lok Sabha elections, extended its 'vote-from-home' facility to Persons with Disabilities (PwD) and senior citizens aged 85 and above.





## About Vote-from-Home

Who is eligible?

People aged 85 and above

Persons with Disabilities: The disability shall not be less than 40% of the prescribed handicap and certified by the certifying authority.

Mediapersons covering 'polling day activities': Carrying authorisation letters from the Election Commission

Workers from essential services: Services such as metros, railways and health care

Service voters: Personnel of the armed forces posted away from their hometowns, Central Armed Police Forces personnel deployed away from home and those on poll duty.

How to avail the vote-from-home facility?

Key to the process is Form 12D, which is a letter informing the Assistant Returning Officer (ARO) that the person may not be in a position to go to the polling station to vote.



The form can be downloaded online from the ECI website or collected from the office of the representative district officer of a parliamentary constituency.

The form has to be filled and submitted within five days of notification of the polling date.

Once filed, two polling officials, accompanied by a videographer and a security person, will visit the elector's home and oversee the postal ballot voting process.

The voter will receive an intimation about the date and approximate time of visit via SMS or through post. The home voting option will be attempted twice.

The polling team will schedule a second visit if the elector fails to be at the given address during the first visit.

If the voter is absent on the second visit, "a further visit will not be entertained." The voter will subsequently be ineligible to vote both at polling booths and through the home voting scheme.

## Teesta River

The tourism department of the Gorkhaland Territorial Administration (GTA) resumed rafting in the Teesta River recently after a gap of five months.

### About Teesta River

It is a trans-Himalayan River flowing through the Indian states of Sikkim and West Bengal and, Rangpur in Bangladesh.

It is a tributary of the Brahmaputra River.

Origin: It originates in the Himalayas and flows through the Indian States of Sikkim and West Bengal before entering Bangladesh, where it flows into the Brahmaputra.

It has a total length of about 309 kilometers.



Flowing through the length of Sikkim, the Teesta River is considered to be the lifeline of the state

The flow of the Teesta is greatest during the summer (June to September), when the monsoon rains are heaviest and glaciers supply abundant meltwater.

Main Tributary: Rangeet River

What is a Monsoon?

A monsoon is a shift in winds that often causes a very rainy season or a very dry season.

**What causes a monsoon?**

A monsoon is caused by a seasonal shift in the winds.

The winds shift because the temperature of the land and the temperature of the water are different as seasons change.

For example, at the beginning of summer, the land warms up faster than bodies of water. Monsoon winds always blow from cold to warm.

In the summer, warm air rising off the land creates conditions that reverse the direction of the wind.

Although monsoons are usually associated with parts of Asia, they can happen in many tropical and subtropical regions.



The tributaries namely Subansiri, Ronganadi, Dikrong, Buroi, Borgong, Jiabharali, Dhansiri (North) Puthimari, Manas, Beki, Aie, Sonkosh are the main tributaries on the North while the Noadehing, Buridehing, Desang, Dikhow, Bhogdoi, Dhansiri (South), Kopilli, Kulsi, Krishnai, Dhdhnoi, Jinjiran are the main tributaries on the south bank of the river Brahmaputra.

## Preventive Detention

Observing that preventive detention is a draconian measure and any such move based on a capricious or routine exercise of powers must be nipped in the bud, the Supreme Court has set aside a Telangana High Court order rejecting a detenu's appeal.

Preventive detention refers to the detention of an individual without a trial or conviction by a court.

The primary objective of preventive detention is not to punish an individual for a past offence but to prevent them from committing an offence in the future.

Preventive detention laws are enacted by governments to ensure public safety and maintain social order.

### Constitutional Provisions and Safeguards:

Article 22 of the Indian Constitution grants protection to individuals who are arrested or detained.

It has two parts—the first part deals with cases of ordinary law, which includes situations where an individual is detained as part of a criminal investigation.

The second part deals with cases of preventive detention law, which pertains to the detention of individuals without a trial or conviction.

Article 22(4) states that no law providing for preventive detention shall authorise the detention states that of a person for a longer period than three months unless an Advisory Board reports sufficient cause for extended detention.

The detainee is entitled to know the grounds of his detention. The state, however, may refuse to divulge the grounds of detention if it is in the public interest to do so.





The detaining authorities must give the detainee earliest opportunities for making representation against the detention.

Who can make laws under Preventive Detention?

Parliament has the exclusive power to enact a law for preventive detention for reasons connected with defence, foreign affairs, or security of India.

Both Parliament and State Legislature have powers to enact a law for preventive detention for reasons related to the maintenance of public order or the maintenance of supplies or services essential to the community.

Laws that provide for Preventive Detention:

In India, various laws provide for preventive detention, including the National Security Act (NSA) of 1980, the Unlawful Activities (Prevention) Act (UAPA) of 1967, and state-specific laws like the Maintenance of Internal Security Act (MISA) and the Public Safety Acts (PSA) in certain states.

Under these laws, authorities can detain an individual for a specific period, typically up to 12 months, without presenting formal charges or conducting a trial.

The detention order is issued by a designated authority or government official and is subject to periodic review by an advisory board.

## Electoral Trusts

The recently released list of corporate contributors to political parties under electoral bonds is under examination, although many of these have been frequent donors, paying large sums to political parties through electoral trusts.

About Electoral Trusts

These are trusts set up by companies with the objective to distribute the contributions received from other companies and individuals to political parties.

The companies which are registered under section 25 of the Companies Act, 1956, are only eligible to make an application for approval as an electoral trust.

The names of electoral trusts, currently, do not indicate the name of the company/group of companies which set up the trusts.



Who can and who cannot contribute to electoral trusts?

Who can:

An individual who is a citizen of India

A company registered in India

An association of persons (Indian residents)

Who cannot:

An individual who is not a citizen of India

Other electoral trusts (approved under the Electoral Trusts Scheme)

Contributors without PAN

NRIs without a passport number

For administrative expenses, the electoral trusts are permitted to set aside a maximum of 5 percent of the total funds collected during a financial year. The remaining 95 percent of total income of the trusts, including any surplus from the previous financial year, is required to be distributed to eligible political parties.

What Laws/Rules govern the creation and functioning of electoral trusts?

The Central Government amended the Income Tax Rules, 1962, on January 31, 2013, to insert Rule 17CA, which lists the functions of electoral trusts approved by the Central Bureau of Direct Taxes (CBDT).

The Central Government, also launched 'The Electoral Trusts Scheme, 2013, which specified the eligibility and procedure for registration as an electoral trust, apart from laying down the format for their registration.

## Right Whales

A recent study finds that female right whales may never breed after entanglement in fishing gear.

About Right Whales



Right whale, (family Balaenidae) is any of four species of stout-bodied whales having an enormous head measuring one-quarter to one-third their total body length.

While they differ genetically, and in conservation status, they do not differ significantly in their external appearance.

From the 17th to 19th century, these whales were hunted for their oil and their strong, elastic baleen.

Because of the considerable economic value of these products, this cetacean gained its name because it was the “right whale” to take.

Adult right whales are generally between 45 and 52 feet in length and can weigh up to 70 tons.

When feeding, these whales swim slowly and use baleen to eat schools of small, shrimp-like crustaceans, called zooplankton.

Conservation Status:

Right whales were nearly exterminated by uncontrolled hunting, and the International Union for Conservation of Nature and Natural Resources (IUCN) considers two of the four species as endangered. They have been completely protected by international agreement since 1946.

Whereas at least 10,000 bowheads and approximately 13,000 southern right whales remain, northern right whales are rare, with North Atlantic right whales numbering only in the hundreds and North Pacific right whales numbering only slightly more.

The IUCN classifies the North **Pacific right whale as an endangered species** and the North **Atlantic right whale as a critically endangered species**.

Zooplankton are small, aquatic microorganisms in the water column that include crustaceans, rotifers, open water insect larvae and aquatic mites. The zooplankton community is composed of both primary consumers, which eat free-floating algae, and secondary consumers, which feed on other zooplankton.