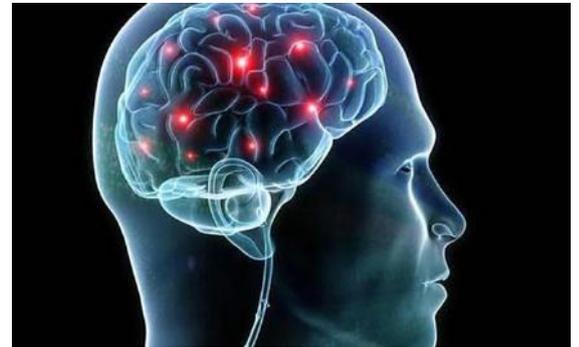


PARKINSON'S DISEASE

Context: US Researchers Establish Parkinson's Origins in Gut.

- ✚ According to researchers the brain disorder is caused by a misfolded protein in the gut that climbs to the brain via a nerve
- ✚ Parkinson's is caused by the build-up of a misfolded protein, called **Alpha-Synuclein**, in the brain cells.
- ✚ The findings showed that the misfolded protein gets transmitted from the gut to the brain along the **Vagus Nerve** – which runs like an electrical cable from the stomach and small intestine into the base of the brain.
- ✚ Blocking this nerve could be the key to prevent the physical and cognitive manifestations of Parkinson's disease



What is Parkinson's disease?

- ✚ It is a **long-term Degenerative Disorder** of the **Central Nervous System** that mainly affects the motor system where symptoms continue and worsen over time. The central nervous system of a person is affected by the disease where the neurons cannot transmit information among themselves, resulting in rigid and slow or even absence of physical movement.
- ✚ The cause of Parkinson's disease is unknown, but is believed to involve both **Genetic** and **Environmental Factors**
- ✚ There is **No Cure** for Parkinson's disease Treatment aims to improve the symptoms.

BIMSTEC



BIMSTEC



About:

- ✚ The **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation** (BIMSTEC) is a regional organization comprising seven Member States lying in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity. This sub-regional organization came into being on 6 June 1997 through the **Bangkok Declaration**.
- ✚ It constitutes seven Member States: five deriving from South Asia, including **Bangladesh, Bhutan, India, Nepal, Sri Lanka, and two from Southeast Asia, including Myanmar and Thailand**.
- ✚ Initially, the economic bloc was formed with four Member States with the acronym 'BIST-EC' (Bangladesh, India, Sri Lanka and Thailand Economic Cooperation). Following the inclusion of Myanmar on 22 December 1997 during a special Ministerial Meeting in Bangkok, the Group was renamed 'BIMST-EC' (Bangladesh, India, Myanmar, Sri Lanka and Thailand Economic Cooperation).
- ✚ With the admission of Nepal and Bhutan at the 6th Ministerial Meeting (February 2004, Thailand), the name of the grouping was changed to 'Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation' (BIMSTEC).
- ✚ BIMSTEC has also established a platform for intra-regional cooperation between SAARC and ASEAN members.
- ✚ The BIMSTEC region is home to around 1.5 billion people which constitute around 22% of the global population with a combined gross domestic product (GDP) of 2.7 trillion economy

Objective:

- ✚ The objective of building such an alliance was to harness shared and accelerated growth through mutual cooperation in different areas of common interests by mitigating the onslaught of globalization and by utilizing regional resources and geographical advantages

USE OF METHANOL TO REDUCE GREEN HOUSE EMISSIONS (GHE)

- ✚ Union Ministry of Road Transport and Highways informed Lok Sabha about the use of Methanol to reduce GHE.
- ✚ In May 2018, the ministry notified mass emission standards for flex-fuel Methanol M15 or M100 and Methanol MD 95 vehicles
- ✚ **M-15** is a blend of 15 % methanol and 85 % Gasoline.
- ✚ Use of blended fuel M-15 in BS-IV cars can result in **lowering** down greenhouse gas (GHG) emissions by about 5 to 10 percent thereby improving air quality.

- ✚ M-15 fuel blending is available as an option and there is no proposal to make such blending mandatory in the Near Future.

WORLD BANK -TARGET OF ELIMINATING TB IN INDIA BY 2025

- ✚ India signs a Loan Agreement worth US\$ 400 Million with the **World Bank** to help Treat and Eliminate Tuberculosis from India.
- ✚ The World Bank Supported Program will cover Nine State in the country to achieve the target of **Eliminating TB by 2025**.
- ✚ The Program seeks to ensure that these **Private Sector** providers adhere to established protocols of timely diagnosis, notification and effective management of TB.
- ✚ The Program will provide **Financial Incentives to Private Sector** care providers for reporting cases of TB and ensuring that their patients complete the treatment regimen.
- ✚ It will also provide Direct Benefit Transfers to patients for acquiring the critical nutrition needed during treatment.
- ✚ The Program will help the GoI strengthen the monitoring and implementation of Nikshay - a web-based TB case monitoring system introduced by the government.

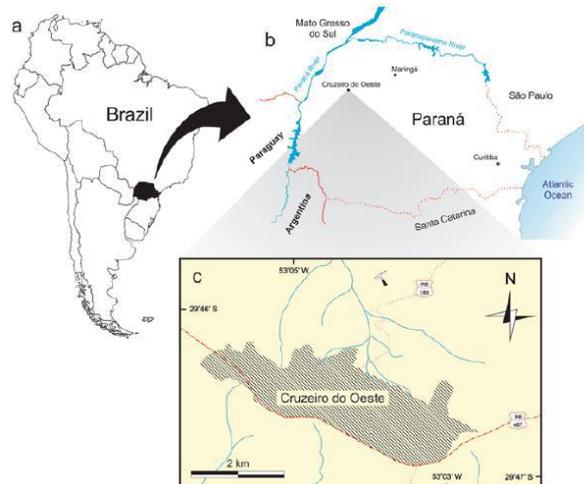


About TB:

- ✚ **Tuberculosis (TB)** is an infectious disease usually caused by **Mycobacterium Tuberculosis (MTB)** bacteria. Tuberculosis generally **affects the lungs**, but can also affect other parts of the body.
- ✚ Tuberculosis is **Spread** through the **Air** when people who have active TB in their lungs cough, spit, speak, or sneeze.

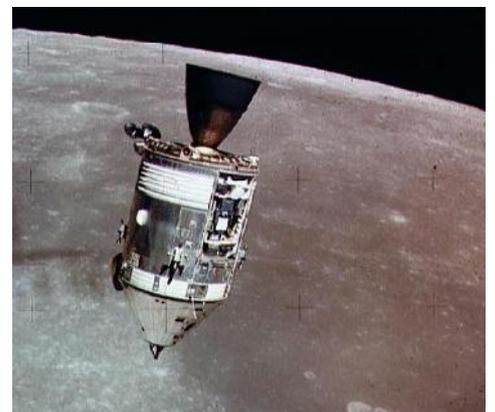
DESERT DWELLING CARNIVOROUS DINOSAUR'S BONES FOUND IN BRAZIL

- A desert based carnivorous dinosaur that used claws to capture small prey 90 million years ago has been unearthed in southern Brazil **Vespersaurus Paranaensis** were found in **Cruzeiro do Oeste** municipality of Parana state.
- In this context the location is important



APOLLO 15 MISSION

- Apollo 15** was the ninth crewed mission in the United States Apollo program, the eighth to be successful, and the fourth to land on the Moon.
- The mission began on July, 1971
- It was the first J mission, with a longer stay on the Moon and a greater focus on science than earlier landings.
- Apollo 15 saw the first use of the Lunar Roving Vehicle.**



L 98-59b: A NEW PLANET DISCOVERED BY NASA MISSION

- It is between the sizes of Mars and Earth and orbits a bright, cool, nearby star.
- It has been named L 98-59b.
- The discovery of the new planet has been made by NASA's Transiting Exoplanet Survey Satellite (TESS)
- L 98-59b is around 80% Earth's size.

- ✚ Their host star, L 98-59, is about one-third the mass of the Sun and lies about 35 light-years away.
- ✚ While L 98-59b is a record for TESS, even smaller planets have been discovered in data collected by NASA's Kepler satellite, including Kepler-37b, which is only 20% larger than the Moon



About:

- ✚ The Transiting Exoplanet Survey Satellite (TESS) is a **NASA Mission** that will look for planets orbiting the brightest stars in Earth's sky
- ✚ The mission will monitor at least 200,000 stars for signs of exoplanets, ranging from Earth-sized rocky worlds to huge gas giant planets.
- ✚ **TESS, however, will Focus on stars that are 30 to 100 times Brighter than those Kepler Examined.** This will help astronomers better understand the structure of solar systems outside of our Earth, and provide insights into how our own solar system formed.

