

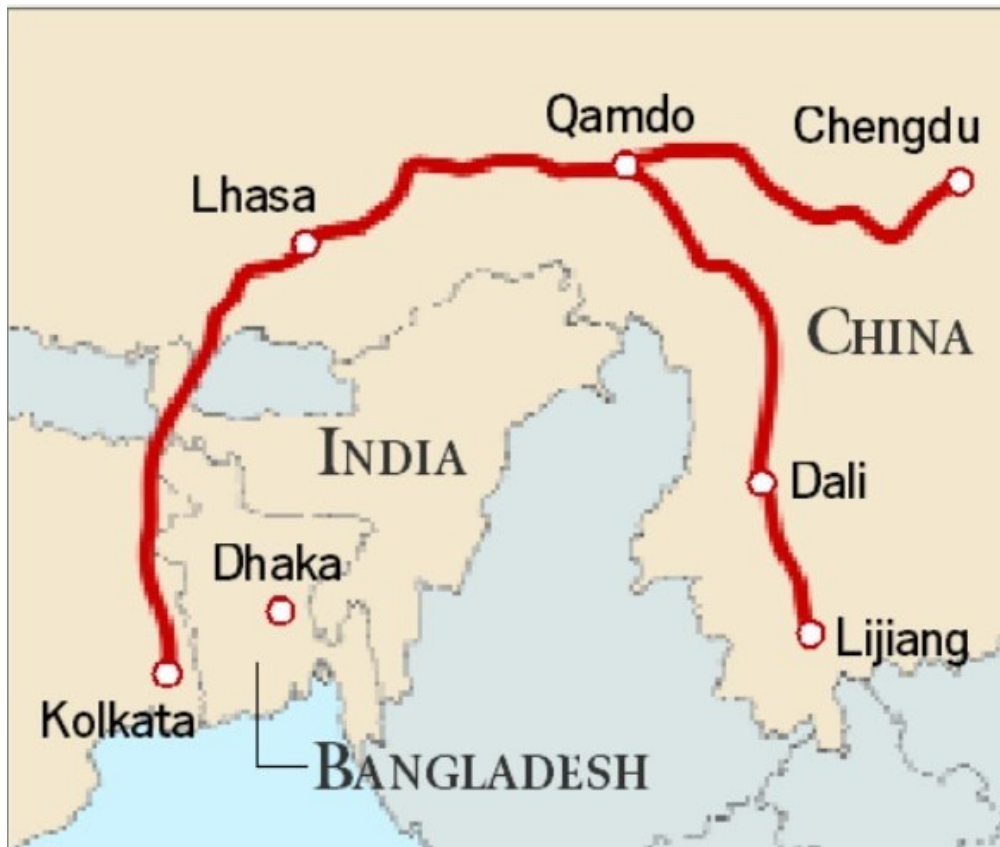
## UPSC Daily Current Affairs| Prelim Bits 25-02-2025

### Tea Horse Road

#### Why in News?

China's Ambassador to India Xu Feihong recently posted on X about the historic Tea Horse Road.

- It spanned more than 2,000 km, and connected **China to India** via Tibet.
- It witnesses the exchanges and interaction between China and India.
- **Origin** - It can be traced to the rule of the Tang dynasty in China (618-907 CE).
- The Tea Horse Road does not refer to a single road but a network of branching paths that **began in southwest China** and ended in the Indian subcontinent.
- **Pathways** - The 2 main pathways passed through cities like Dali and Lijiang in Yunnan province, and reached Lhasa in Tibet, before entering the Indian subcontinent.
- They branched into present-day India, Nepal, and Bangladesh.
- These routes were perilous to travel on, passed through difficult terrain, and reached an elevation of up to 10,000 feet.
- Buddhist monk **Yijing (635-713 CE)** mention
  - Products like sugar, textiles, and rice noodles being transported from southwestern China to Tibet and India while
  - Horses, leather, Tibetan gold, saffron and other medicine herbs went to China.
- Over time, the trade focused on teas and horses during **Song dynasty** (960-1279 CE).
- The main driver for the road is believed to be the **demand for tea** among Tibetan nomads.
- In 1912, as the time of the Qing dynasty came to an end, the Horse Tea Road would continue to remain significant.
- Cultural and technological exchanges over 800 years have created unique local architecture, art, landscape, culture and social life.
- These incorporate the quintessence of **Han, Bai, Tibetan** and other ethnic groups.
- **Declination** - With the establishment of the People's Republic in 1949, the Tea Horse Road witnessed a gradual decline.



## Reference

[The Indian Express | Tea Horse Road](#)

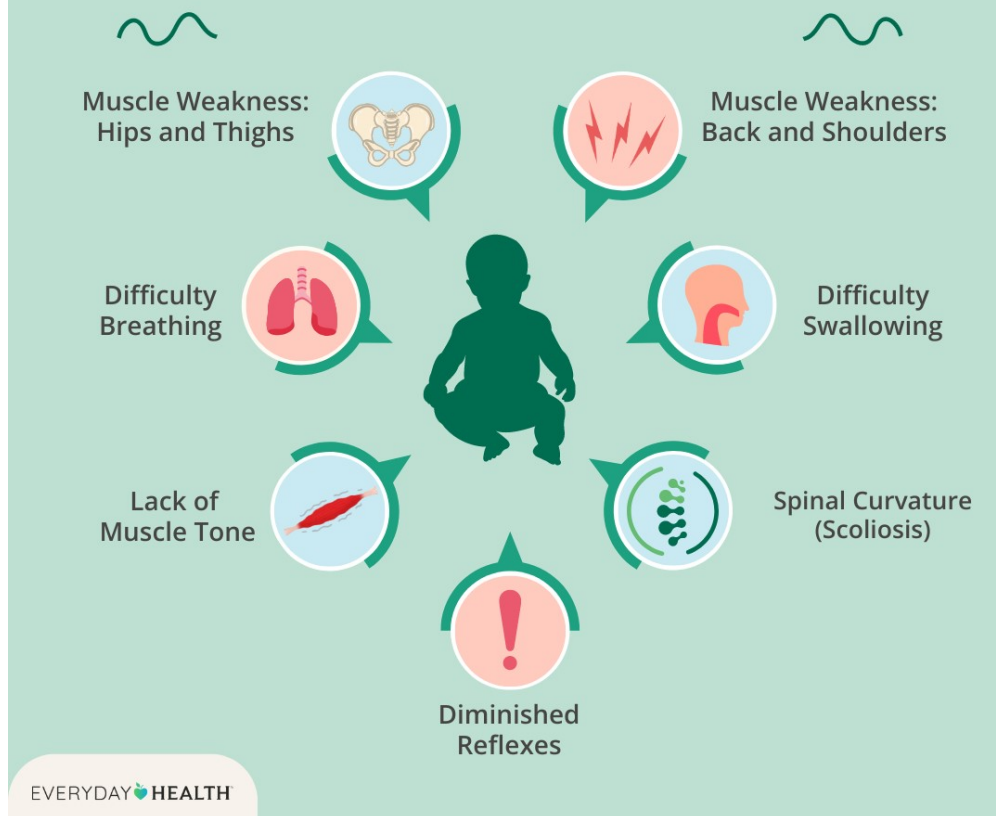
## Spinal Muscular Atrophy (SMA)

### Why in News?

*A two-and-a-half-year-old girl has shown no signs of a genetic disorder, known as spinal muscular atrophy (SMA), becoming the first person in the world to be treated for the disease while in the womb.*

- SMA is a debilitating **genetic condition** which affects motor neurons that control movement, and leads to progressive muscle weakening.
- **Caused by** - Mutations in the survival motor neuron gene (SMN1) which causes a deficiency of a protein crucial for the survival of motor neurons in the spinal cord.
- This prevents muscles from receiving signals from the brain, causing them to waste away.

# How Spinal Muscular Atrophy (SMA) Affects the Body



## • Types of SMA

- **Type I** - Usually diagnosed before age 3
  - **Type II** - Begins to affect children between 6-18 months old
  - **Type III** - Also called ***Kugelberg-Welander syndrome*** or juvenile SMA, begins to affect kids as early as 18 months of age or as late as adolescence
  - **Type IV** - The adult form of SMA, symptoms usually begin after age 35.
- In its most severe form, SMA-1, motor skills decline rapidly and patients usually only live two to three years.
  - **Prognosis** - About one in every 10,000 births have some form of the condition making it a leading genetic cause of death in infants and children.
  - **Recent application in Treatment** - For the treatment, scientists used an oral drug called risdiplam, which is given to patients to slow the progression of SMA.
  - **Risdiplam** is typically given to a patient soon after birth.
  - The mother, who was 32 weeks pregnant, took Risdiplam daily for 6 weeks.
  - The baby started taking the drug from roughly one week old, and will probably continue to take it for the rest of her life.
  - The scientists found that the girl had higher levels of the SMN protein in her bloodstream, compared to those usually born with the condition.
  - The girl seemed to have lower levels of nerve damage, and even after 30 months had normal muscle development with no sign of atrophy.

## Reference

## National Dhanwantari Ayurveda Awards

### Why in News?

*National Dhanwantari Ayurveda Awards conferred to three distinguished practitioners for their contributions to the field of traditional Indian medicine.*

- **National Dhanwantari Ayurveda Awards** - It is given to
  - Celebrate excellence in Ayurveda,
  - Acknowledging practitioners who have excelled in research, practice, and education,
  - To those who have played a pivotal role in elevating Ayurveda's stature both nationally and globally.
- **Instituted by** - Ministry of Ayush.

*In 2016, the Government of India's Ministry of Ayush declared the birth anniversary of Dhanvantari as National Ayurveda Day.*

- **Components of the Awards** - Each recipient of the National Dhanwantari Ayurveda Awards received
  - **Citation** - Recognizing their exceptional contributions and dedication to Ayurveda.
  - **Trophy** - Featuring the Statue of Lord Dhanwantari, symbolizing the divine healer.
  - **Cash Prize** - A monetary award of Rs. 5 Lakh to support further advancements in their field.
- **Significance** - Acknowledge the dedication and innovative contributions of Ayurveda stalwarts.
- Encourage upcoming practitioners and researchers to pursue excellence in traditional medicine.
- Emphasize the integration of time-honored Ayurvedic practices with modern healthcare systems, ensuring that ancient wisdom continues to evolve and meet contemporary challenges.
- Strengthen India's role as a global leader in **holistic healthcare** by showcasing the rich legacy and ongoing innovation in Ayurveda.
- **Award recipients, 2025**
  - **Vaidya Tara Chand Sharma** - Renowned Nadi Vaidya and accomplished author.
  - **Vaidya Maya Ram Uniyal** - Distinguished scholar of Dravyaguna Vigyana from Uttar Pradesh.
  - **Vaidya Sameer Govind Jamadagni** - Founder of the Vishwa Vyakhyanmala national conference and Vishwa Ayurveda Prabodhin.

*In October 2016, on Ayurveda Day, the first All India Institute of Ayurveda was inaugurated by PM Narendra Modi in New Delhi.*

## **Reference**

[PIB | National Dhanwantari Ayurveda Awards](#)

## **Solar Coronal Holes**

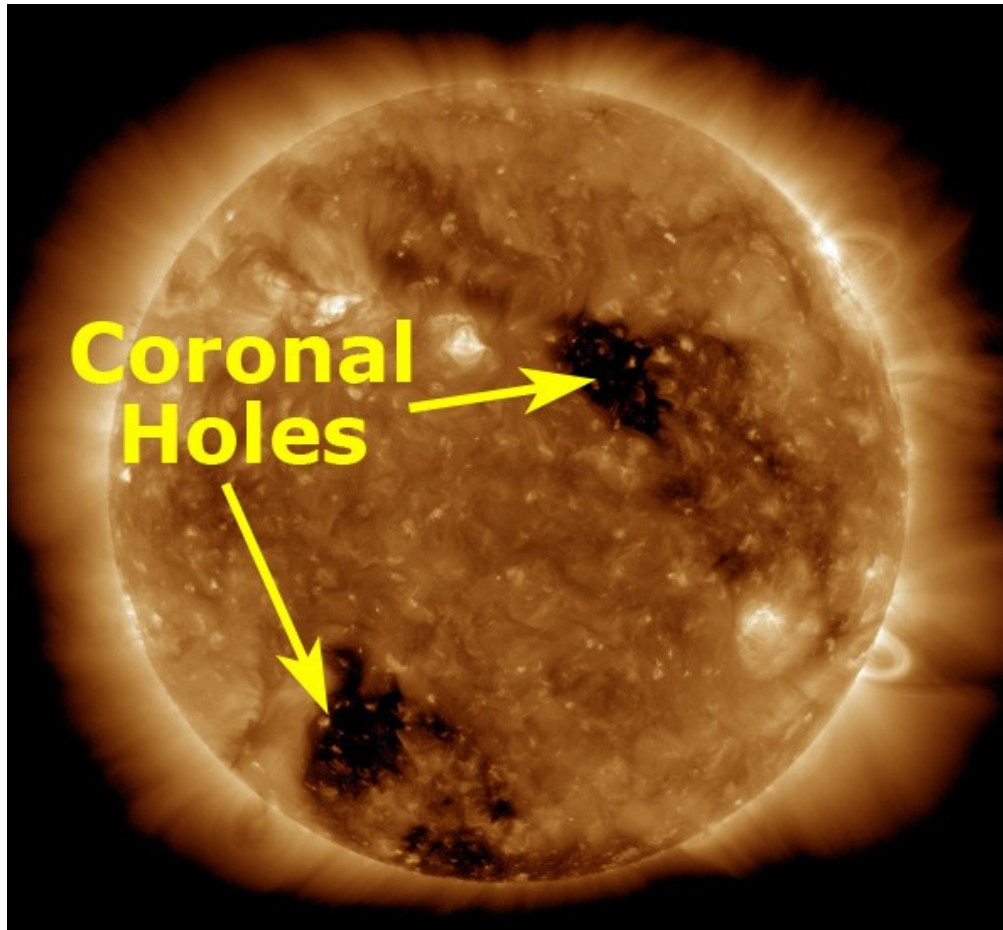
### **Why in News?**

*Astronomers from the Indian Institute of Astrophysics (IIA) recently accurately characterised the latitude dependence of temperature and magnetic field strengths within the coronal holes.*

### **Coronal holes**

- Coronal holes are large, dark areas on the sun that are cooler and less dense than the surrounding plasma.
- They are regions of open magnetic fields that allow solar wind to escape into space.
- These phenomena are intense sources of fast solar wind, streams of charged particles escaping the sun at high speeds.
- **First discovered in** - 1970s by X-ray satellites.
- These holes may appear at any time of the solar cycle but they are most common during the declining phase of the cycle.

*Solar and Heliosphere Observatory (SOHO), a joint project between NASA and the European Space Agency (ESA) is a spacecraft that orbits the Sun, studying the Sun's interior, atmosphere, and solar wind.*



### Key findings of the study

- **Uniform Temperature** - There is no significant variation in the temperature structure of coronal holes across different latitudes.
- **Magnetic field structure** - The strength of the magnetic field structure within coronal holes *varies with latitude*, increasing from the solar equator to the poles.
- These results suggest that coronal holes likely ***originate from the deep solar interior*** and may form from the superposition of *Alfven wave perturbations*, respectively.
- Understanding the thermal structure, estimate the depths of origin of coronal holes, while radiative flux and energy estimations help quantify the thermal energy input into interplanetary space.
- **Significance of the Findings** - Improved monsoon predictions which benefit agriculture and disaster management.
- Deepen the knowledge of how solar phenomena influence Earth's weather systems.

### Reference

[India Today |New Findings of Coronal Holes](#)

**One Liners 25-02-2025**

**History, Art and Culture**

## Ravi Shankar Vyas

- **Born** - Feb 25, 1884, in Gujarat.
- **Role** - 1921 Participated in Indian National Movement demonstrating his commitment by relinquishing his rights to his ancestral property.
- **Associated** - With Mahatma Gandhi & Sardar Patel.
- **Participated in** - Quit India Movement in 1942.

## Adopt a Heritage 2.0 Programme.

- **Initiated by** - Bisleri International & Archaeological Survey of India (ASI)
- **Focus** - On core objective is water conservation at historical sites.
- **Alignment** - This project is in line with India's broader goals for environmental restoration and sustainability.
- **Initial Phase** - Will concentrate on reviving four historically significant water bodies
  - Chand Baori (Abhaneri, Rajasthan)
  - Baori at Neemrana (Rajasthan)
  - Padma and Rani Talabs at Ranthambore Fort (Rajasthan)
  - Budha Budhi Pond at Kalinjar Fort (Uttar Pradesh)

## Geography

### Dukono Eruption

- **Located in**- Halmahera Island in North Maluku, Indonesia.
- **Nature of Volcano** - Active
- **Indonesia** - Has 130 active volcanoes, Situated on the Ring of Fire, faces frequent eruptions & earthquakes.
- **Active volcanoes** - Mount Merapi and Kelut, both located on Java Island of Indonesia.
- **Pacific Ring of Fire:** This 40,000km zone, with tectonic plate interactions, causes 90% of global earthquakes.

### Zagros Mountains

- **Located In** - Iraq was pulled into the Earth.
- **Highest Peak**- Mount Dena.
- **Ancient city** - Susa.
- **Formation of Mountain** -Tectonic in Origin formed during Miocene and Pliocene orogenic episodes.
- This resulted in Arabian Plate's subduction under the Eurasian Plate, creating a 1,500km natural barrier.
- **Geographic Extension**- Stretching from Turkey to Iran, ending at the Strait of Hormuz.

## Polity & Governance

### Principal Secretary to the PM

*Shaktikanta Das recently appointed as Principal Secretary to the PM.*

- **Former post** - Governor of RBI.
- **Administrative head of** - Prime Minister's Office (PMO).
- **Functions** - Briefing notes for discussions with foreign dignitaries, ensuring inter-ministerial coordination, and managing key communications for the PM.
- **Advisory Role** -Assisting the Prime Minister on various domestic and foreign policy matters.

## International Relations and Issues

## India to Host 12<sup>th</sup> Regional 3R & Circular Economy Conference in Jaipur.

- **Nodal Agency**- Ministry of Housing & Urban Affairs
- **Launched by** - United Nations Centre for Regional Development in 2009.
- **Theme**- Realizing Circular Societies Towards Achieving Sustainable Development Goals & Carbon Neutrality in Asia-Pacific”.
- **Aim** - Provide strategic policy inputs to Asia-Pacific governments for 3R and circularity, while sharing best practices.
- **Features** - India's achievements in the 3R and circular economy, featuring exhibitions from key ministries and missions.
- The conference will include an international '3R trade and technology exhibition' with participants from Indian and Japanese businesses.
- The event will conclude with the 'Jaipur Declaration,' aimed at promoting a resource efficient circular economy in the Asia-Pacific region.

## Economy

### Compendium of Datasets and Registries in India 2024

- **Nodal Ministry**- Ministry of Statistics
- **Data Centralization** - Consolidation of 270 datasets from 40 Ministries.
- **Objective** - Offering a single access point for diverse sectors like agriculture, health, and education, aiding informed decisions.
- **Metadata Standardization**- Detailing with collection methods, update frequency & sharing policies, ensures data reliability and user trust.
- **Legal and Regulatory Framework**- Each dataset has a legal and regulatory framework.
- Outlines rules for data collection and dissemination.
- Crucial for stakeholders to understand regulations for responsible data use.

## Environment

### Soliga Tribe-Guardians of the BRT Tiger Reserve

- **Soliga meaning** - "Children of bamboo”.
- **Reside** - In Karnataka's Biligiri Rangana & Male Mahadeshwara Hills.
- **Population Found** - Karnataka & Tamil Nadu.
- **Language spoken**- Sholaga, Kannada & Tamil.
- **Unique Rights & Habitat** - They are the India's 1st tribe granted official rights within a tiger reserve to Own, manage, and use forest resources.
- **Role** - Conservation of Biligiri Rangaswamy Temple Tiger Reserve.
- **Livelihood** - Engage in shifting cultivation and forest product collection, with honey being a vital food source.

### Prakriti 2025

- **Inauguration** - Union Minister for Power, Shri Manohar Lal.
- **Location** - New Delhi.
- **Focus** - Carbon markets and transformational climate initiatives.
- **Goal** - Promoting resilience, awareness, knowledge, and resources.

## Security

### Sagar Kavach' security exercise

- **Location**- West Bengal coastline.
- **Objective** - Exercise aimed to improve Standard Operating Procedures and enhance inter-agency coordination for India's eastern maritime border.
- **Functions** - Scenarios involving hijacked fishing boats and barges.
- Tested response to illegal transportation of goods along the coastline.
- Focused on detection and disposal of improvised explosive devices on critical infrastructure.





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**IAS PARLIAMENT**  
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