

## ART & CULTURE

PRE-CONTEXT

### BUDDHISM

THE HINDU, PG.NO: 4.

**News:** "Archaeologists find 1.4-metre-tall Buddha head in Odisha, say dig is only getting started."

#### About Findings:

- **Location:** *Ratnagiri*, Jajpur district of Odisha.
- **The notable discoveries include:**
  - Lion pedestal (Buddha's Simhasana).
  - Votive sculptures of Buddhist deities, such as:
    - **Amoghasiddhi**, one of the five wisdom Buddhas of the Mahayana and Vajrayana tradition.
    - **Ratnasambhava**, one of the five meditating Buddhas;
    - **Akshobhya**, another wisdom Buddhas;
    - **Amitabha**, one of the most widely worshipped Buddhist figures in Mahayana Buddhism.

#### About Ratnagiri:

- Ratnagiri, which means '*hills of jewels*' in Odia, is located on a hillock in the Assia hill range in Jajpur and **encircled by the rivers Brahmani, Kimiria, and Birupa** and their tributaries.
- Ratnagiri is no stranger to Buddha sculptures made of **Khondalite stone**. Dozens of such carvings have been unearthed in the area.
- It is part of '*Diamond Triangle*', a collection of three Buddhist sites — **Ratnagiri, Udayagiri and Lalitgiri**.

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## HEALTH

PRE-CONTEXT

### TUBERCULOSIS

THE HINDU, PG.NO: 11.

**News:** "Why are States asked to use untested AI tool for TB screening?"

"India had the highest tuberculosis (TB) burden in 2023."

#### Tuberculosis:

- **Caused by:** *Mycobacterium tuberculosis (Mtb)*.
- **Preventive Vaccine:** Bacillus Calmette-Guerin (**BCG**).
- Mtb coevolved with humans for a millennia (1000 years).
- Those with **nutritional deficiencies, diabetes, and a habit of smoking** are at the highest risk of contracting TB
- **Multiple Drug Resistance:** microorganisms like bacteria or viruses, develop resistance to multiple antimicrobial drugs, making infections harder to treat.
  - *Mtb developed its ability to grow in macrophages (white blood cells).*

#### India and Tuberculosis:

- India contributes to **25% of global TB cases** in 2022.
- TB is **one of the top 10 causes of deaths** in India.
- India has a significant number (**~75, 000**) of **Multi-Drug Resistant TB** in 2022.
- **SDG goal 3** is to end TB by 2030.

#### National TB Elimination Programme (2017-2025)

- Eliminate TB **by 2025** under **National Health Mission**.
- TB elimination means there should be under **one case of TB for a population of 10 lakh**.
- **Progress in reduction of TB incidence cases:** 280 cases per lakh in 2005 to 190 cases per lakh in 2024 (it was 199 in 2020)—**WHO World TB report 2024**.
- **To reach the target under the programme:** incidence cases of TB must be reduced to 120 by 2025. **Which is not possible by 2025.**
- **Key components of Programme:**
  - Early detection and diagnosis using **Rapid TB detection kits**.
  - **Nikshay Poshan Yojana:** Direct Benefit Transfer of Rs. 1000 monthly nutritional support to TB patients.
  - **Nikshay digital platform** to monitor TB treatment.
  - **Preventive Vaccine BCG** for newborns.

#### About New regimen tackling microbial resistance:

- It is comprised of **four drugs** — **Bedaquiline, Pretomanid, Linezolid and Moxifloxacin**.
- The BPaLM regimen is reputed **to cure drug-resistant TB** in just **six months**, with a **high success rate**.

23 FEB 2025



## EDUCATION

PRE-CONTEXT

### THREE LANGUAGE FORMULA

THE HINDU, PG.NO: 12.

**News:** "Why is three-language policy controversial?"

**Context:** The Union Government has withheld ₹2,152 crore in funds due to Tamil Nadu under the Samagra Shiksha scheme for refusing to join the PM-SHRI initiative. While T.N. is eager to participate in the PM SHRI scheme, it staunchly opposes the accompanying mandate to implement the NEP 2020. One of the State's core objections to the NEP is its insistence on adopting a three-language formula in schools.

#### Constitutional Provisions:

- Constitution provides that **Hindi is the official language of the Union**. English was originally meant to continue as the social language for 15 years from the commencement of the Constitution (till 1965).
  - However, the **Official Languages Act, 1963 provides for the continued use of English, in addition to Hindi, for all official purposes of the Union** without any time limit.
- The **legislature of a State may adopt any one or more of the languages in use in the State or Hindi as the official language(s) for official purposes of that State**.
- Constitution provides that it shall be the **duty of the Union to promote the spread of the Hindi language** so that it may serve as a medium of expression for all the elements of the composite culture of India.

#### About Three language Formula:

- **NEP 1968:** introduced three language formula and advocated for Hindi to be a compulsory language across the nation under three language formula.
- **NEP 2020:** It states that "the three languages learned by children will be the choices of States, regions, and, of course, the students themselves, so long as at least two of the three languages are native to India."

#### PM-SHRI Schools: PM Schools for Rising India.

- **Centrally Sponsored Scheme** (60:40).
- To develop more than 15,000 schools **to implement NEP Policy** during 2022-2027.
- **Managed by** Both Centre and State Govts.
- NEP 2020 includes **three language formula** and curriculum changes.

#### Samagra Shiksha Abhiyan

- **Centrally Sponsored Scheme** (60:40).
- **Ministry of Education** is the nodal agency.
- **Vision of scheme** is to ensure inclusion and equitable quality of education inline with SDG for education.
- Estimated outlay of **approx 3 lakh crore** between 2021 and 2026.
- **Features:**
  - Extends support from pre-school to class 12.
  - It **merged earlier three-schemes** Sarva Shiksha Abhiyan, Rashtriya Madhyamika Shiksha Abhiyan, Teacher Education.
  - Envisages one comprehensive strategic plan for development of school education at **district level**.
  - Improving on quality of school education by **focusing on two T's: Teachers and Technology**.
  - Promotes **vocationalisation of education**.
  - Focusses on **digital education like UDISE+, Shagun etc.**
- Strengthens and **upgrades Teacher Education Institutions** Eg. SCERT.
- Supports states to implement **RTE Act 2009**.

23 FEB 2025

## ENVIRONMENT

PRE-CONTEXT

### SUSTAINABLE ENERGY

THE HINDU, PG.NO: 11.

**News:** "Powering a sustainable future."

**Context:** Generating electricity by burning coal leads to considerable air pollution, which affects human and animal health. Recent studies, have shown that in India nitrogen dioxide and ozone emissions from coal-fired power plants diminish yields of staple crops like wheat and rice.

#### Wind Energy:

- Use of wind power by placing **windmills** to generate electricity.
- **Nine windy States of India** generate as much as 50 Gigawatts (GW) of electricity.
- India is the **fourth largest wind power** maker in the world.

#### Solar Energy:

- It uses energy from sunlight.
- This involves **setting up solar panels on houses and buildings or on large scale solar farms**.
- These panels absorb sunlight and convert light into electricity.
- **Central and State govts offer subsidies** to those who install solar panels.
- India is the **third-largest producer** of solar power in the world.

#### Block a river and generate power:

- This involves stopping a part of a river to make electricity, besides offering water for agriculture in areas where the river flows.
- When a **river's water is blocked by a dam and then released, the resultant energy is used to generate electric power**.
- The top five dams across India together generate as much as **50 GWs (Gigawatts) of hydroelectric energy**.

#### Generation of Power where a river flows into the sea:

- Here concept of **osmotic pressure difference** plays role in power generation.
- **India has a vast coastline of 7,500 km**, where rivers from the west, south and east drain into the sea, and this technology can effectively generate electricity.
- Here is an **opportunity** for Indian scientists and technologists to rise to the challenge.

#### Nuclear Energy:

- Using **nuclear reactors for peaceful purposes** and generate electricity.
- Nuclear power plants use **nuclear fission** to heat water, create steam, and spin turbines to generate electricity.
- The **set of eight nuclear power plants in India** together generate 3.5 GW of electricity.

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## SECURITY

PRE-CONTEXT

### WEBSITE BLOCKING

THE HINDU, PG.NO: 12.

**News:** "How was 'Vikatan' made inaccessible?"

**Context:** The website of the Tamil magazine, Vikatan, was rendered inaccessible for several readers on February 15.

#### About Website Blocking:

- **Section 69A of IT ACT 2000:** governs website blockings.
  - **Grounds:** *Empowers the govt.* to block a website in the "interest of sovereignty and integrity of India, defence of India, security of the State, friendly relations with foreign States or public order or for preventing incitement".
- **IT Rules, 2009:** *empowering Ministries and State govt departments* to refer a blocking request through a nodal officer to a designated officer under the IT Ministry, which then constitutes a committee that takes a decision.
- **IT(Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021:**
  - *Empowering the I&B Ministry and the IT Ministry* to issue emergency orders blocking content on social media platforms, streaming services, online news websites, and so on.

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ज्ञानं नेतृत्वं जनसेवा

**Thank you!**