



Soapstone Mining in Uttarakhand | Uttarakhand | 10 Jan 2025

Why in News?

- Recently, the **Uttarakhand High Court** took **suo moto cognizance** and criticized the authorities for failing to regulate **soapstone mining** in **Bageshwar district of Uttarakhand**.

Key Points

- **Environmental Concerns:**
 - **Land Subsidence:**
 - **Subsidence** is a critical issue in Uttarakhand, exacerbated by mining activities in **vulnerable areas like Kanda-Kanyal in Bageshwar**.
 - Mining operations, **soil erosion**, removal of resources, and **earthquakes** contribute to the problem.
 - **Slope Instability:**
 - Mining at lower slopes **weakens structural integrity**, affecting villages on upper slopes.
 - **Loamy and loose soil increases susceptibility to erosion**, particularly during **monsoons**.
 - **Deficient Safety Measures:**
 - Lack of green belts, retaining walls, buffer zones, slope monitoring, and protective structures accelerates erosion.
 - **Water and Air Pollution:**
 - Mining activities lead to **water scarcity**, **contamination**, and **air pollution** in the region.
- **Cultural Concerns:**
 - **Impact on Traditional Architecture:**
 - Land subsidence has damaged **Kumaoni Bakhli houses**, which historically demonstrated seismic resilience.
 - **Damage to Heritage:**
 - Cracks in the **Kalika Temple floor in Kanda**, a **10th-century site of cultural and religious importance**, signify mining-related degradation.
 - The region's cultural practices, including **folk music, dance, and handicrafts**, are also affected.
- **Administrative Lapses:**
 - The State and Union governments **failed to define "semi-mechanised mining,"** yet granted environmental clearances for such activities.
 - Heavy equipment use without clear policy limits has worsened the situation.

Soapstone

- Soapstone is a **soft metamorphic rock made of talc** with varying amounts of **chlorite, dolomite, and magnesite**.
- **Uses:**
 - Soapstone is widely used in industries for **making sculptures, countertops, sinks, and tiles** due to its **durability and aesthetic appeal**.
 - It is used in **stoves, fireplaces, and laboratory countertops** because of its excellent heat resistance.

- Ground soapstone serves as a filler in **paper, cosmetics, and paints**.
- It is also used for making **utensils, handicrafts, and idols**.
- **Availability in India:**
 - As per [the Indian Bureau of Mines](#), **Rajasthan (57%) and Uttarakhand (25%) hold significant reserves**.
 - **Rajasthan:** The largest producer, particularly in the Udaipur, Dungarpur, and Bhilwara regions.
 - **Uttarakhand:** Notable deposits in Bageshwar, Pithoragarh, and Almora districts.
 - **Tamil Nadu and Karnataka:** Smaller reserves also exist.

Forest Ecosystem and Green GDP | Chhattisgarh | 10 Jan 2025

Why in News?

Recently, **Chhattisgarh** became the **first state in India to link its forest ecosystem to the [Green Gross Domestic Product \(Green GDP\)](#)**.

- This approach highlights the **economic and environmental value of forests**, focusing on biodiversity conservation and climate change mitigation.

Key Points

- **Goals and Design of the Action Plan:**
 - The plan **ensures economic progress while preserving the environment** for future generations.
 - Key benefits like **climate regulation, soil enrichment, water purification, and carbon absorption** will now be integrated into the state's economic planning.
- **Importance of Forest Resources in Chhattisgarh:**
 - With **44% of its land covered by forests**, Chhattisgarh's natural resources are vital to millions.
 - Forest products such as **tendu leaves, lac, honey, and medicinal plants** significantly boost the rural economy.
 - Forests absorb **carbon dioxide**, playing a crucial role in combating **climate change**.
- **Alignment with National Vision:**
 - The initiative aligns with the Prime Minister's vision of a **"Developed India 2047."**
 - The plan emphasizes both the **economic and environmental benefits of forests** in **budget planning and policy-making**.
- **Findings from ISFR Report:**
 - [The India State of Forest Report \(ISFR\)](#) highlights a significant rise in forest and tree cover in Chhattisgarh, attributed to **biodiversity protection and conservation efforts**.
- **Cultural and Employment Significance:**
 - Forests in Chhattisgarh hold **religious and cultural significance**, deeply tied to tribal traditions and spiritual solace for local communities.
 - Forests contribute to employment through **eco-tourism** activities such as jungle safaris and camping in **national parks**.
- **Ecosystem Services Valuation:**
 - To quantify the **economic value of forests**, scientists will assess their ecosystem services, including:
 - **Clean Air:**
 - **Quantifying CO2 absorption by trees** and its conversion into oxygen.
 - Adding its **market value to Green GDP**.

- **Water Conservation:**
 - Measuring the **economic impact of water provided by forests** through rivers and springs.
- **Biodiversity:**
 - Valuing the role of forest fauna in maintaining ecological balance and aiding agriculture.

Green Gross Domestic Product (Green GDP)

- **Traditional GDP:** A measure of the **annual value of goods and services** produced within a country, **GDP** has been the global standard since 1944.
 - **Simon Kuznets**, the economist who created **GDP**, stated that **GDP doesn't reflect a nation's true welfare**, as it ignores factors like environmental health and social well-being.
- **Green GDP:** It is a **modified version of traditional GDP** that accounts for the **environmental costs of economic activities**.
 - It incorporates factors such as **natural resource depletion, environmental degradation, and pollution into the economic output**, offering a more comprehensive picture of a nation's true wealth.
- **Need for Green GDP:** Traditional GDP overlooks **sustainability, environmental degradation, and social welfare**. It focuses solely on **economic output** without considering the long-term consequences on the environment.
 - Green GDP, on the other hand, ensures that **economic growth aligns with sustainable practices**, reflecting the true cost of environmental damage and the depletion of natural resources.
- **Formula:**
 - According to the **World Bank**, **Green GDP = NDP (Net Domestic Product) – (Cost of Natural Resource Depletion + Cost of Ecosystem Degradation)**.
 - Where $NDP = GDP - \text{Depreciation of Produced Assets}$.
 - **Cost of Natural Resource Depletion** refers to the value lost due to overuse of natural resources.
 - **Cost of Ecosystem Degradation** refers to the value lost from environmental damage such as pollution and deforestation.

Haryana to Implement New Criminal Laws | Haryana | 10 Jan 2025

Why in News?

Haryana is going to fully **implement the three new criminal laws** by 28th February 2025. The **widespread adoption of 5G technology** would act as a force multiplier, as the new laws require **digital evidence through mandatory videography of crime scenes and recovery procedures**.

Key Points

- **Timelines and Challenges:**
 - The new laws mandate **strict timelines for courts to complete trial proceedings**.
 - Courts face challenges as they must **handle both pending cases under old laws and new cases** in a time-bound manner.
 - Courts are now required to **accept chargesheets electronically**, leaving no room for exceptions.

- **Amendments to Police Rules:**
 - The existing **Police Rules need amendments** to align with the new legal framework.
 - **For example**; introduction of electronic summons delivery, previously unaddressed in the rules.
- **E-Summons App:**
 - The E-Summons App **eliminates the need for physical delivery of summons**.
 - Summons are **transferred electronically**, served via mobile devices or WhatsApp, and acknowledged screenshots are uploaded to the system.
- **Technological Upgrades in Policing:**
 - **Equipment:**
 - **Tablets and mobile handsets** are being procured for the police.
 - Each police station of Haryana has six computers connected to the Crime and **Criminal Tracking Network and Systems (CCTNS)**.
 - **E-Sakshya App:**
 - Designed to upload electronic evidence, requiring extensive backend storage, which is managed by **the National Informatics Centre (NIC)**.
- **Legislative Changes:**
 - **Bharatiya Nyaya Sanhita (BNS)**, **Bharatiya Sakshya Sanhita (BSS)**, and **Bharatiya Nagarik Suraksha Sanhita (BNSS)** replaced **the Indian Penal Code, Indian Evidence Act, and Code of Criminal Procedure**, respectively.
 - These laws, effective from 1st July 2024, aim to strengthen infrastructure and forensic capabilities.

National Informatics Centre (NIC)

- It is a premiere S&T institution of the Government of India, **established in 1976**, for **providing e-Government / e-Governance Solutions** adopting best practices, integrated services and global solutions in Government Sector.

Crime and Criminal Tracking Network & Systems

- **Background:**
 - **Crime and Criminal Tracking Network & Systems (CCTNS)** is a plan scheme conceived in the light of experience of a non-plan scheme namely - **Common Integrated Police Application (CIPA)**.
- **Launch:**
 - CCTNS is a **Mission Mode Project** under **the National e-Governance Plan (NeGP)** of the **Ministry of Home Affairs**.
 - Approx. 14,000 Police Stations throughout the country have been proposed to be automated besides 6000 higher offices in the police hierarchy.
 - It was approved in **2009**.
- **Objectives:**
 - Make the Police functioning **citizen friendly** and **more transparent** by automating the functioning of Police Stations.
 - Improve delivery of **citizen-centric services** through effective usage of **ICT**.
 - Provide the Investigating Officers of the Civil Police with **tools, technology and information** to facilitate investigation of crime and detection of criminals.

PM to Inaugurate Z-Morh Tunnel | Jammu & Kashmir | 10 Jan 2025

Why in News?

The Prime Minister is going to inaugurate [the Z-Morh tunnel](#) on 13th January 2025, marking the first major milestone in establishing a year-round strategic corridor between Kashmir and Ladakh.

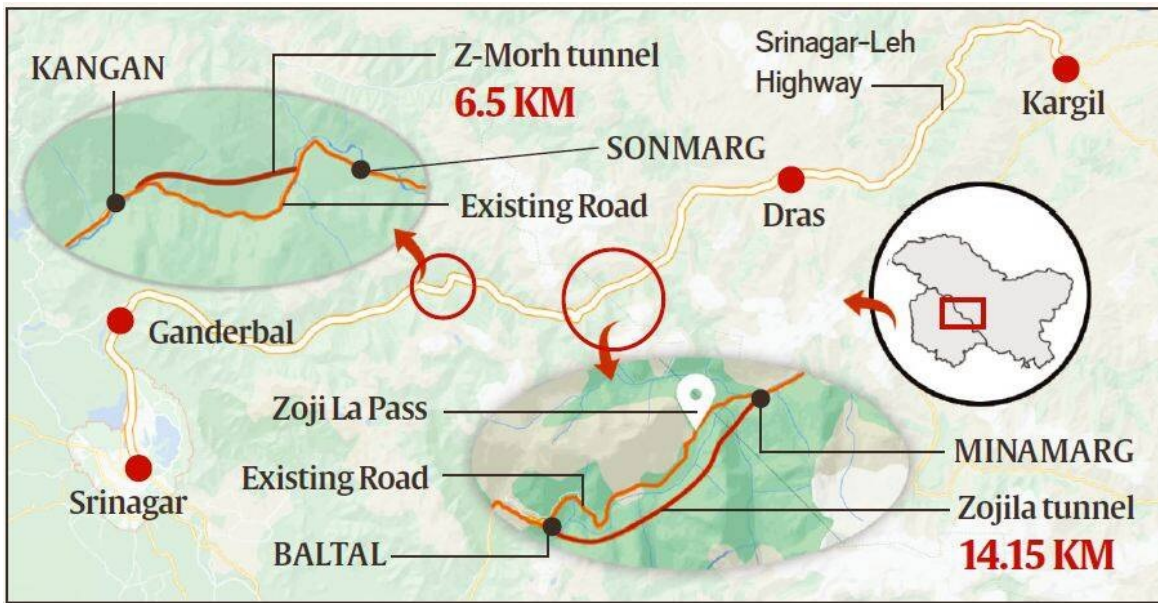
Key Points

- **Strategic Importance of the Z-Morh Tunnel:**
 - **Year-Round Access:**
 - The Z-Morh tunnel, located in **Ganderbal district of central Kashmir**, is crucial for keeping Sonamarg open to tourists throughout the year.
 - It **addresses the previous issue where [snowfall and avalanches](#) would block access** to the tourist spot in winters.



The banner features the text 'RAS Mains Course' in large, bold, blue letters with a yellow outline. Below it, there are two circular icons: one with 'Hindi Medium' and another with 'English Medium'. Further down, there are three icons representing '700+ Hours of Classes', 'RAS Mains Series', and '20 Mains Test Series'. A prominent blue button with white text says 'Admissions Open'. In the bottom right corner, there is a black box with white text showing a phone number '87501 87501'. The background is light gray with faint icons of a ruler, a graduation cap, a book, and a pencil.

- **Tunnel Features:**
 - The Z-Morh tunnel, located **under the Thajiwas Glacier**, **bypasses** areas prone to [landslides and avalanches](#).
 - An **intelligent traffic management system** will help regulate vehicle flow and will also facilitate adventure tourism at Thajiwas Glacier and [the Sindh River](#).
- **Cultural and Tourism Boost:**
 - The tunnel was praised as a **major infrastructure asset for central Kashmir**, with significant potential to **boost [winter tourism](#) in the region**.
- **Details of the Tunnel Project:**
 - **Cost and Length:**
 - The Z-Morh tunnel, built at a cost of Rs 2,680 crore, is 6.5 km long and features a two-lane passage.
 - It includes a 10.8-meter main tunnel, a modified horseshoe-shaped escape tunnel, and several culverts.
 - **Connectivity:**
 - The Z-Morh tunnel is part of the larger strategic route to Ladakh, linking to the Zojila tunnel.
 - [The Zojila tunnel](#), Asia's longest, will reduce travel time between Ganderbal and Kargil from three hours to just 20 minutes.
- **Geopolitical and Strategic Significance:**
 - The Zojila and Z-Morh tunnels are **vital for the movement of goods and personnel**, especially for security forces stationed in Ladakh.
 - **The Zojila Pass** is currently the **only road linking Kashmir to Ladakh** but is often closed during the winter months due to heavy snow.
 - Both tunnels are located in [seismic Zone IV](#), necessitating the implementation of robust safety measures to prevent structural damage.



Vande Bharat for Katra-Srinagar Route | Jammu & Kashmir | 10 Jan 2025

Why in News?

Recently, **the Railway Board** unveiled a [Vande Bharat Express train](#), specially designed to operate seamlessly in the challenging winter conditions of Jammu & Kashmir, for the upcoming **Katra-Srinagar rail route**.

Key Points

- **Climate-Specific Features:**
 - The Vande Bharat Express, stationed at Shakurbasti coaching depot in New Delhi, has been **specially designed for Jammu & Kashmir's extreme winter conditions**.
 - It features **advanced heating systems** to prevent the freezing of water and bio-toilet tanks, ensure the vacuum system and laboratories remain warm, and **optimize air-brake system** functionality in sub-zero temperatures.
- **Passenger Amenities:**
 - The train also **includes all amenities** found in existing Vande Bharat Express trains, such as fully air-conditioned coaches, automatic plug doors, and mobile charging sockets.
- **Symbol of Connectivity:**
 - The train connects the Kashmir Valley more effectively to the national railway network, symbolizing India's commitment to bridging geographical and economic gaps.

Vande Bharat Trains

- It is an **indigenously designed and manufactured semi high speed**, self-propelled train that is touted as the next major leap for the Indian Railways in terms of speed and passenger convenience since the introduction of Rajdhani trains.
- The first Vande Bharat was **manufactured by the Integral Coach Factory (ICF), Chennai** as part of the ['Make in India' programme](#), at a cost of about Rs. 100 crore.
- The Vande Bharat was **India's first attempt at adaptation of the train set**

technology compared with conventional systems of passenger coaches hauled by separate locomotives.

- The train set configuration, though complex, is faster, easier to maintain, consumes less energy, and has greater flexibility in train operation.



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About Indian Railways

- It was **established in 1853** and is **one of the largest railway networks globally**.
- The **first train in India ran** over a distance of 21 miles, connecting **Bombay and Thane**.
- India has the **3rd largest metro-rail network** in the world after **China and the US**. By 2050, India is projected to account for **40% of the global rail activity**.

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