

TATHASTU ICS

DAILY
CURRENT
AFFAIRS
AUGUST 9

KS/AJ

S.NO	TOPIC OF THE DAY
1	CLIMATE EVENTS AND AN UMBRELLA FOR URBAN HEALTH
2	INDIA'S MINING POLICY SHIFT
3	IMPROVED NUTRITION, EARLY WEIGHT GAIN CAN CUT TB CASES, MORTALITY: LANCET'S INDIA RESEARCH

CLIMATE EVENTS AND AN UMBRELLA FOR URBAN HEALTH

SOURCE: [TH](#)

GS 2

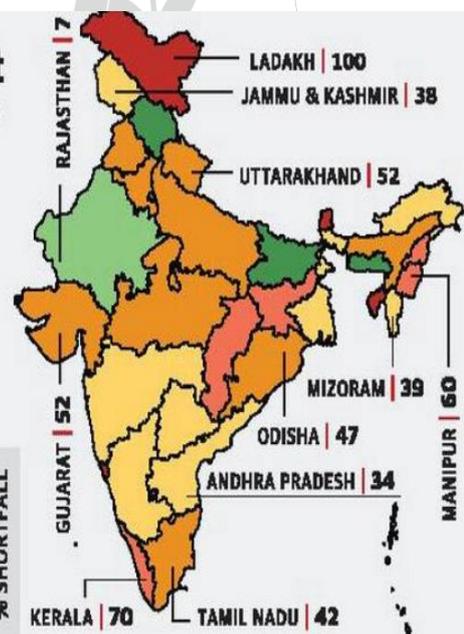
WHY IN NEWS: The concern has been notable among policymakers regarding various events including the cyclonic storm Biparjoy that originated in the Arabian Sea in June, struck western India after landfall, the flooding in Assam, a north-eastern state, and the recent instances of substantial rainfall and resultant damage in northern India.

A STUDY ON DISEASE VULNERABILITY

- **The Indian Journal of Public Health** emphasizes two key findings: Firstly, households with lower socio-economic indicators are more susceptible to malaria.
- Secondly, urban households face significantly higher odds of malaria compared to rural ones.
- Additionally, households located in states with high and moderately high vulnerability to climatic conditions are more likely to experience malaria.
- Following the monsoon season, officials responsible for managing water and vector-borne diseases are closely vigilant to observe and control the proliferation of these illnesses.

Health centre count

The map shows the shortfall (%) of primary health centres (PHCs) in urban areas as of July 2020. The shortfall was more than 50% in 14 States/UTs



WHY THERE IS A NEED TO REBUILD THE HEALTH SYSTEM

- It is essential to reconstruct the urban primary healthcare system and guarantee its ability to withstand challenges.
- The healthcare system must prioritize the vulnerable urban population, particularly those residing in urban slums and peri-urban regions.

- A robust healthcare system is characterized by its ability to effectively address emergencies, proactively plan for imminent crises, and adjust to evolving public health requirements.
- Despite the National Urban Health Mission's initial efforts to enhance primary healthcare systems in urban regions, the constrained capacity of urban local bodies to generate revenue hampers progress, even though it has started making modest improvements.

CHALLENGES FACED BY PUBLIC HEALTH SYSTEM IN INDIA

- **Shortage of Healthcare Personnel:** There is a significant shortage of doctors, nurses, and other healthcare professionals in India. (Doctor population ratio 0.74:1000).
- **Communicable Diseases:** India continues to face a high burden of communicable Diseases including tuberculosis, malaria, and HIV/AIDS.
- Eg: 34% of the world's TB burden, 21% of world's child deaths.
- **Inadequate Focus on Preventive Care:** The public health system often places more emphasis on curative care rather than preventive measures. (Only 6% is spent on preventive care).
- **Inequality in Access:** There is a stark disparity in access to healthcare services between urban and rural areas with rural populations facing greater challenges in accessing quality healthcare. (Rural areas have only 70% population, 31% hospital and 16% hospital).
- **Insufficient Infrastructure:** Inadequate healthcare infrastructure, including a shortage of hospitals, clinics, and primary health centres affects the accessibility and quality of health care services.

PRELIMS SPECIFIC :

Health insurance policies in India:

Ayushman Bharat : IT is the largest healthcare program globally, with the objective of providing coverage to a population equivalent to that of approximately 27-28 European countries.

The Rashtriya Swasthya Bima Yojana (RSBY): It offers fully subsidised comprehensive secondary and tertiary healthcare packages providing annual coverage of Rs. 5 lakhs per family on a shared basis.

Private voluntary health insurance (PVHI) schemes: PVHI is a contributory and voluntary scheme. It is a retail insurance product with coverage for nearly 11.5 crore persons.

NITI aayog has released a report " Health insurance for India's missing Middle.

NATIONAL URBAN HEALTH MISSION

National Urban Health Mission (NUHM) was approved by the Union Cabinet as a sub-mission under an **overarching National Health Mission (NHM)** for providing equitable and quality primary health care services to the urban population with special focus on **slum and vulnerable sections of the Society.**

NUHM seeks to improve the health status by facilitating their access to quality primary healthcare.

WAY AHEAD

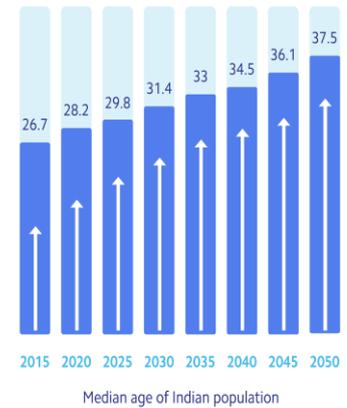
- Enhanced coordination and collaboration are essential in addressing public health emergencies.
- There is a need for better information and data exchange among different stakeholders, preventive and therapeutic roles, medical procedures, and most importantly, overseeing rates and benchmarks.
- The domain of surveillance and information systems like the Integrated Disease Surveillance Programme should be extended universally, broadened in scope, and reinforced.
- Given the intricate character of health and climate crises, the existing framework of specialized disease control initiatives must transition to a holistic healthcare system approach for effectively managing public health programs.
- It is essential to integrate front-line workers from different disease management programs in order to establish a versatile group of public health professionals in urban regions. These individuals would serve as multi-purpose, front-line personnel accountable to both communities and the healthcare system.

India is Getting Serious About Healthcare


Indians in metros
visit doctors
2x more than those
in non-metros


Bangaloreans visit
doctors the most
at 4.8 times, while
Delhiites the
least at 3.8 times


Gynecology,
Dermatology and
Pediatrics emerged as
the top 3 specialties



Median age of Indian population

Institute of Civil Services

INDIA'S MINING POLICY SHIFT

GS 3

SOURCE : [TH](#)

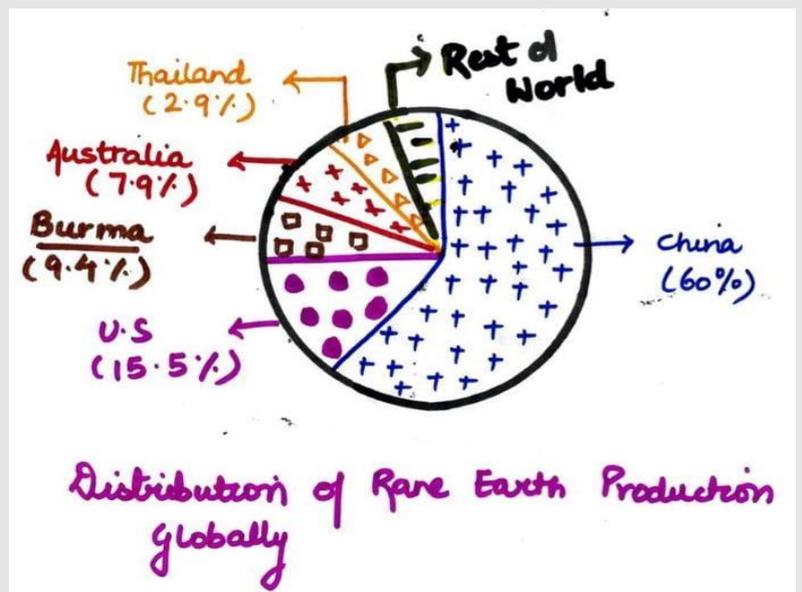
WHY IN NEWS: Only about 10% of India's evident geological potential has been examined so far; the Mines and Minerals (Development and Regulation) Amendment Bill, 2023, seeks to involve the private sector in the exploration of vital minerals

The Mines and Minerals (Development and Regulation) Amendment Bill, 2023, was recently approved by Parliament.

- This amendment pertains to the 1957 Mines and Minerals act that oversees the mining industry.
- The purpose is to encourage private sector funding for the search of crucial and deeply situated minerals within the nation.
- The Bill designates six minerals, like lithium utilized in electric vehicle batteries and other energy storage technologies, as "critical and strategic" minerals.
- The previous classification of these six minerals as atomic minerals limited their exploration and mining to government-owned entities.

PRELIMS SPECIFIC

Rare earth elements (REEs) are a set of seventeen elements in the periodic table, specifically the fifteen lanthanides, as well as scandium and yttrium. These elements play a crucial role in various aspects of modern technology and have significant economic and strategic importance.



IMPORTANCE OF CRITICAL MINERALS

- A variety of minerals play a crucial role in the manufacturing, infrastructure development, and transition towards clean energy. However, their availability is limited.
- India's pursuit of clean energy transitions to achieve net-zero emissions relies significantly on the presence of essential minerals.
- As an instance, Lithium, often referred to as 'white gold,' along with others like cobalt, graphite, and rare earth elements (REEs).

- In recent times, the US, UK, and EU have taken steps to enhance the resilience of supply chains for such minerals through initiatives like the Mineral Security Partnership (MSP), which India joined this year.
- Prominent economies are actively securing supply chains for critical minerals given the prevailing global circumstances.

PROVISIONS OF MMDR ACT 2023

PROVISION	EFFECTS
Creation of National Mineral Exploration Agency (NMEA)	The NMEA will be responsible for conducting mineral exploration activities in India. This will help to boost mineral exploration in the country and attract private investment in this sector.
Relaxation of environmental regulations	The MMRDA Amendment Act relaxes some of the environmental regulations for mining projects. This will make it easier for private companies to invest in mining projects and help to boost the mining sector.
Introduction of a single-window clearance system	The MMRDA Amendment Act introduces a single-window clearance system for mining projects. This will help to reduce the time and cost of obtaining clearances for mining projects.
Introduction of a mineral auction system	The MMRDA Amendment Act introduces a mineral auction system for some minerals. This will help to ensure that the government gets the best possible price for its mineral resources.
Promotion of mineral processing and value addition	The MMRDA Amendment Act promotes the processing and value addition of minerals in India. This will help to create jobs and boost the manufacturing sector.
Requirement of prior consent for transfer of mining leases	The MMRDA Amendment Act requires prior consent from the government for the transfer of mining leases. This will help to prevent the misuse of mining leases.
Strengthening of the regulatory framework	The MMRDA Amendment Act strengthens the regulatory framework for the mining sector. This will help to ensure that mining activities are carried out in a sustainable manner.

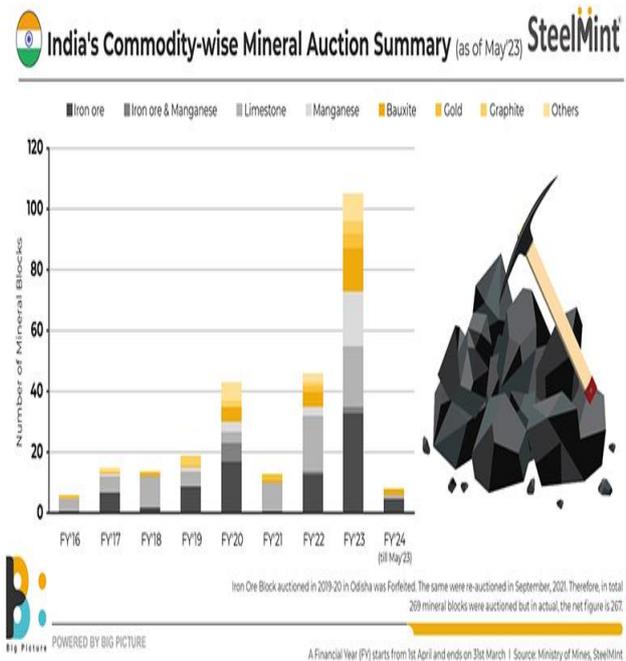
THE MINES AND MINERALS BILL OF 2023 AIMS TO ENCOURAGE PARTICIPATION FROM THE PRIVATE SECTOR BY:

- **Enhancing Mining Opportunities:** The Bill removes six atomic minerals that were previously exclusively reserved for government entities.
- **Facilitating Exploration Initiatives:** The Bill overturns the previous prohibition on specific exploration activities such as pitting, trenching, drilling, and sub-surface excavation.
- **Introducing Exploration License (EL):** The Bill introduces a fresh exploration license (EL) designed to encourage preliminary and potential-level exploration by private entities.
- **Defining Exploration Area:** The Bill outlines the maximum exploration area, permitting activities within a 1,000 square kilometer range under a single exploration license.

- **Government Auctions:** The Bill grants authority to the central government to hold auctions for composite licenses and mining leases particularly for critical and strategic minerals.

CHALLENGES FACED

- **Revenue Uncertainty:** Exploration firms might remain uncertain about their revenue until the success of mine auctions, discouraging potential private involvement due to unclear returns on investment during the exploration phase.
- **Challenges in Auctioning:** Conducting auctions for exploration licenses poses complexity since the value of undiscovered resources remains uncertain. This complexity may reduce private sector interest owing to the unpredictability inherent in the auction process.
- **Government Control of Discoveries:** The policy restricts private explorers to sharing premiums after discoveries, rather than directly selling their findings. This contrasts with global norms where private explorers can sell their findings to mining companies.
- **Assurance for Investment:** Companies might be hesitant to make substantial investments in exploration due to uncertainties regarding the utilization of discoveries. This hesitation could impact incentives for capital investment.



WAY FORWARD:

- The government should quickly notify the rules and regulations under the Act.
- The government should hold regular auctions for mining leases and composite licences.
- The government should provide financial and technical assistance to the private sector to explore and mine critical minerals.
- The government should strengthen the monitoring and enforcement of environmental and safety regulations for mining.

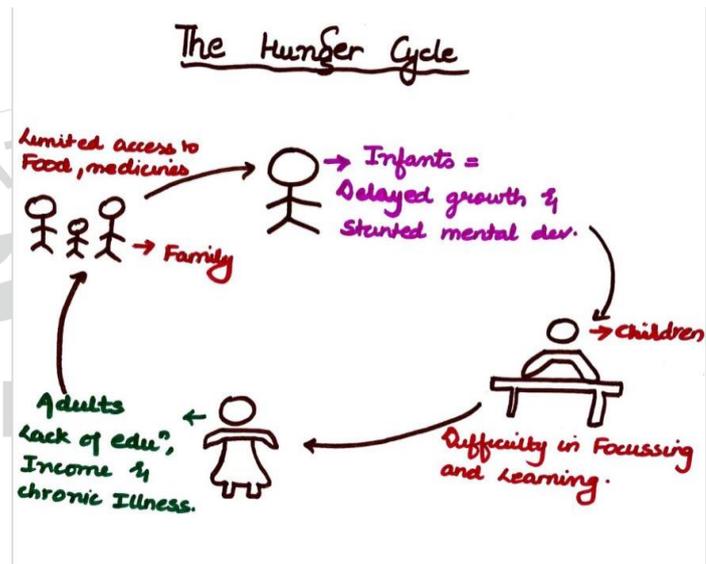
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GS 2 HEALTH

SOURCE : [IE](#)

WHY IN NEWS: As per the results of the RATIONS trial, enhancing nutritional status can lead to a reduction of up to 40 percent in the occurrence of all types of tuberculosis

Based on the discoveries from the Reducing Activation of Tuberculosis by Improvement of Nutritional Status (RATIONS) trial, enhancing nutritional conditions can potentially decrease the occurrence of all tuberculosis forms by as much as 40 percent. Moreover, it may lead to a reduction of up to 50 percent in the occurrence of infectious tuberculosis among individuals in close proximity to patients with infectious lung tuberculosis.



THIS FIG.1 DEPICTS HOW HUNGER CYCLE LEADS TO MALNUTRITION AND LEADS TO VARIOUS DISEASES ESPECIALLY TUBERCLOSIS

HOW TO DEAL WITH THE CHALLENGES OF HUNGER AND MALNUTRITION IN INDIA

- **Diversify food production:** - for instance Production of millets should be encouraged for more nutritious values and biofortification of food grains should be promoted.
- **Enhance social safety nets:** Implement targeted welfare programs like food subsidies, direct benefit transfers, and nutritional support for pregnant women, lactating mothers, and children.
- **Promote nutrition education:** Increase awareness about the importance of balanced diets, breastfeeding, and optimal child feeding practices among communities.
- **Empower women:** Empowered women can contribute to better nutrition outcomes for themselves and their families.
- **Mitigate the impact of climate change:** Establish early warning systems to mitigate the impact of climate change on food production and food security.
- **Monitor and evaluate:** Regularly track progress in reducing hunger and malnutrition and ensure accountability at all level.

CURRENT STATUS OF TUBERCLOSIS

- From 2010 to 2020, each year witnessed the loss of 1.5 to 2 million lives due to tuberculosis.
- Tuberculosis has a greater impact on individuals in economically disadvantaged countries, particularly those who are impoverished and susceptible.
- According to the Global TB report of 2021 by the World Health Organization, India bears 25% of the worldwide tuberculosis burden with 2.59 million reported cases.
- India has observed a reduction of over 20% in the reporting of tuberculosis cases, with 1.8 million cases reported in 2020 as compared to 2.4 million cases in 2019.

PRELIMS SPECIFIC

CB NAAT TEST

- CB-NAAT (Cartridge-based nucleic acid amplification test) is a rapid molecular diagnostic test used to detect tuberculosis (TB) and drug-resistant strains of TB.
- It is a gold standard test for detecting active TB infections.
- The GeneXpert machine uses a process called polymerase chain reaction (PCR) to amplify the DNA of the TB bacteria.
- The amplified DNA is then analyzed to determine if it is from *Mycobacterium tuberculosis*, the bacteria that causes TB.
- The CB-NAAT test can also be used to detect resistance to the drugs rifampicin and isoniazid, which are the first-line drugs used to treat TB.

INDIA EFFORTS AGAINST TUBERCULOSIS

- **India's National TB Elimination Program** is being reinforced to achieve the objective of eradicating the TB epidemic from the country by 2025, five years ahead of the Sustainable Development Goals (SDG) target for 2030.
- **National Strategic Plan (NSP) for Tuberculosis Elimination (2017-2025)** encompass various initiatives such as the **Nikshay Ecosystem**, which is the national TB information system, the **Nikshay Poshan Yojana (NPY)** offering financial assistance, and the **TB Harega Desh Jeetega Campaign**.
- Presently, two vaccines named **VPM 1002** and **MIP (*Mycobacterium Indicus Pranii*)** have been developed and identified for TB, both of which are in Phase-3 clinical trials.
- Under the **Ni-kshay Poshan Yojana**, patients are provided Rs 500 in financial aid via direct benefit transfer.
- To ensure accurate diagnostics and treatment, the government is focusing on utilizing technology and creating digital health IDs for TB patients through the **Ayushman Bharat Digital Health Mission**.

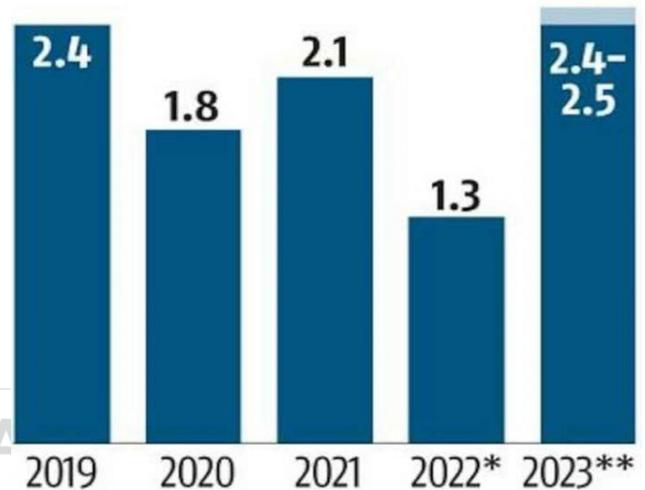
WAY FORWARD

- **Improve access to quality healthcare:** This includes providing access to TB diagnosis and treatment services, as well as nutrition services.
- **Address the underlying causes of malnutrition and TB:** This includes addressing poverty, inequality, and social exclusion.

- **Raise awareness about malnutrition and TB:** This includes educating people about the risk factors for these diseases and how to prevent them.
- **Empower women and girls:** This is important because women and girls are disproportionately affected by malnutrition and TB. This is due to a number of factors, including gender discrimination, lack of education, and limited access to resources
- **Strengthen the health system:** This includes investing in human resources, infrastructure, and supplies.
- **Support research and innovation:** This is important to develop new diagnostic tests, treatments, and prevention strategies. This will help us to better understand these diseases and to develop more effective ways to control them

TB CASES IN INDIA

Cases in mn



* Till date ** expected
Sources: India TB Report, Central TB Division, MoHFW

