

## DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 14-11-2025

### Table of Content

India, Nepal Ink Pact to Step Up Trade Ties

Reforms in Transgender Healthcare in India

Draft Seeds Bill, 2025

Global Carbon Emissions Are Projected to Rise : Global Carbon Project

### News In Short

Workplace Stress & Diabetes

Hepatitis A

Rheumatoid Arthritis

New Royalty Rates of Critical Minerals

Saranda Forest

Revisit NEMMP 2020 to Promote Electric Vehicles

Mudh-Nyoma Airbase

## INDIA, NEPAL INK PACT TO STEP UP TRADE TIES

### Context

- **India and Nepal** have amended the **Treaty of Transit** to **facilitate the movement of rail-based freight** between Jogbani in India and Biratnagar in Nepal.

### About

- This liberalisation extends to **key transit corridors** — Kolkata-Jogbani, Kolkata-Nautanwa (Sunauli), and Visakhapatnam-Nautanwa (Sunauli).
- **Aim:** To strengthen multimodal trade connectivity between the two countries and Nepal's trade with third countries.
- These new measures are expected to **further consolidate economic and commercial linkages** between the two countries and beyond.

### Overview of India - Nepal Relations

- **Shared Border:** The country shares a border with **five Indian states - Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand**.
  - ♦ Land-locked Nepal relies heavily on India for the transportation of goods and services and access to the sea is through India.
- **The India-Nepal Treaty of Peace and Friendship:** Signed in **1950**, it forms the **bedrock of the special relations that exist between India and Nepal**.
  - ♦ Nepalese citizens **avail facilities and opportunities on par with Indian citizens** in accordance with the provisions of the Treaty.
- **Defence Cooperation:** India has been assisting the Nepal Army (NA) in its **modernisation by supplying equipment and providing training**.
  - ♦ Both countries conduct **Joint Military Exercise SURYA KIRAN** alternately in India and in Nepal.
  - ♦ Since 1950, India and Nepal have been awarding each other's Army Chief with the **honorary rank of General**.
  - ♦ **The Gorkha regiments** of the Indian Army are raised partly by recruitment from **hill districts of Nepal**.
- **Trade and Economic:** India remains **Nepal's largest trade partner and Investment** where Indian firms account for **33.5 % of total FDI stock in Nepal**.

- ♦ Nepal is India's 17th largest export destination, up from 28th position in 2014.
- ♦ India constitutes 64.1% of the total trade of Nepal, comprising about \$8.85 billion USD (Indian FY 22-23).
  - This includes \$8.015 billion USD of exports from India to Nepal and \$839.62 million USD of exports from Nepal to India.
- **Connectivity and Development Partnership:** India is the largest developmental donor of Nepal in the field of priority sectors such as health, education and connectivity.
  - ♦ Some of the major projects include Gauchar Airport (presently Tribhuvan Airport), East West Highway, development of cross-border rail links and establishment of **Integrated Check Posts**.
- **Energy Cooperation:** India and Nepal have had a **Power Exchange Agreement since 1971** for meeting the power requirements in the border.
  - ♦ **Joint Vision Statement on Power Sector Cooperation 2022:** It includes joint development of power generation projects in Nepal, development of cross-border transmission infrastructure, and coordinated operation of the national grids.
- **Operation Maitri & post-earthquake reconstruction assistance:** In the wake of the 2015 earthquake in Nepal, India was the first responder and carried out its **largest disaster relief operation abroad (Operation Maitri)**.
- **Cultural Ties:** The leaders of the two countries have often noted the **age-old 'roti beti' relationship**, which refers to **cross-border marriages** between people of the two countries.

### Areas of Concerns between India & Nepal

- **Treaty of Peace and Friendship of 1950:** It was an effort to **strengthen and develop ties and to perpetuate peace between the two countries**.
  - ♦ As time passed, Nepal believed the treaty was asymmetrical and **incompatible with the national interest of Nepal**.
  - ♦ India has consistently stated it is open to reviewing the treaty "in a constructive and forward-looking manner" if Nepal desires it.
- **Kalapani dispute:** The area is in India's control but Nepal claims the region because of **historical reasons**. The area is the largest territorial dispute between Nepal and India.

- **Trust Deficit between the Both Countries:** Perception in Kathmandu that India interferes in Nepal's internal political processes.
  - ♦ India's concerns about **growing Chinese influence** in Nepal's infrastructure, trade, and political decisions.
  - ♦ Occasional political narratives in Nepal portraying India as hegemonic.
- **Security Concerns:** Both India and Nepal have shared security concerns, including issues related to cross-border terrorism, trafficking, and border security.
- **Perception of Unequal Relationship:** Some segments of Nepalese society have expressed concerns about what they perceive as an unequal relationship with India, with allegations of economic dependence and a lack of reciprocity in the bilateral relationship.

#### Way ahead

- Despite these challenges and disputes, India and Nepal have historically maintained close ties and continue to engage in dialogue and diplomatic efforts to address bilateral issues.
- Both countries recognize the importance of their relationship and are committed to finding mutually acceptable solutions to their differences while promoting cooperation and friendship for the mutual benefit of their peoples.

Source: TH

## REFORMS IN TRANSGENDER HEALTHCARE IN INDIA

### Context

- **Tamil Nadu** has emerged as a national leader in transgender healthcare, launching inclusive policies and specialized clinics that aim to dismantle long-standing barriers faced by the community.

### About Transgender Person & Issues Related To Health

- Transgender people are **considered a gender minority in India** due to their distinct identity, historical marginalization, and systemic exclusion from mainstream social, economic, and political life.
- According to the **Census (2011)**, over 4.87 lakh individuals identified as transgender, under the 'Other' gender category.

- The principle of '**leave no one behind**' from the **UN's SDGs** urges governments to prioritize healthcare for marginalized groups—including transgender persons.

### Why Transgender Healthcare Matters?

- Stigma and discrimination in hospitals and clinics.
- Lack of gender-affirming services, such as hormone therapy and surgeries.
  - ♦ Care is often **narrowly restricted** to sexually transmitted infections or gender-affirming surgery.
- Exclusion from education, housing, employment, and social welfare.
- Mental health challenges due to social exclusion and violence.
- Limited access to insurance and financial aid.

### Related Policy & Legal Reforms

- **NALSA Judgment (Supreme Court, 2014):** Recognized transgender persons as a third gender and directed:
  - ♦ Legal recognition;
  - ♦ Reservations in education & employment;
  - ♦ Access to healthcare without stigma.
- **Transgender Persons (Protection of Rights) Act, 2019:** It mandates:
  - ♦ No denial of healthcare;
  - ♦ Separate HIV-centers;
  - ♦ State governments to provide medical care for sex-reassignment surgery (SRS);
  - ♦ Coverage under insurance schemes.
- **Transgender Persons (Protection of Rights) Rules, 2020:**
  - ♦ District Magistrate certification process;
  - ♦ Clarified healthcare responsibilities of states;
  - ♦ Directions for gender-affirming care in public health institutions.
- **National Medical Commission (NMC) 2022–2023 reforms:**
  - ♦ Prohibited discriminatory content in MBBS textbooks;
  - ♦ Directed inclusion of scientific, non-stigmatizing transgender health modules.

### Healthcare-Specific Reforms

- **Ayushman Bharat – Pradhan Mantri Jan Aarogya Yojana (AB-PMJAY):** Government approved a **transgender health package** including hormone therapy, breast augmentation, penectomy, vaginoplasty, facial feminization, voice therapy, and mental health support.

- ♦ AB-PMJAY reimburses up to 5 lakhs for select gender-affirming procedures.
- **Garima Greh (Transgender Health Clinics):** These include mental health and primary care services. Multiple states have introduced specialized clinics:
  - ♦ **Kerala** (first dedicated TG clinic at Kottayam);
  - ♦ **Tamil Nadu Transgender Welfare Board** healthcare support;
  - ♦ Delhi and Maharashtra pilot clinics.
- **Mental Health Integration:** NIMHANS and AIIMS Delhi have published guidelines on gender dysphoria management, counselling, and consent processes for surgeries.

#### Case Study: Tamil Nadu's Pioneering Interventions

- The **Tamil Nadu medical Council (TNMC)** has mandated **LGBTQIA+ sensitisation** and transgender health training for all doctors, medical faculty members, and students across the state.
  - ♦ It makes **Tamil Nadu the first state** to institutionalise such comprehensive training within **Continuing Medical Education (CME) programmes**.
- Tamil Nadu was the first Indian state to offer **free gender-affirming surgeries** in a government hospital.
- **Gender Guidance Clinics (GGCs)** was established in 2018 under the **National Health Mission** to provide multidisciplinary care for transgender persons.
  - ♦ Clinics prominently display messages on non-discrimination, privacy, and respect, strengthening trust in the system;
  - ♦ GGC doctors were trained by the **World Professional Association for Transgender Health (WPATH)**.
- Tamil Nadu became the **first South Asian region**, in 2022, to extend **universal health insurance** to cover gender-affirming surgeries, and hormone therapy.
- The **Mental Health Care Policy (2019)** and **State Policy for Transgender Persons (2025)** solidify the state's commitment to health, education, and property rights for transgender citizens.

- The **Madras High Court** has actively advanced transgender rights in rulings addressing marriage recognition; banning conversion therapy; curriculum reform; ending police harassment; and halting unnecessary intersex surgeries;

#### Way Ahead

- While Tamil Nadu offers a promising model, further work is needed:
  - ♦ Expand GGCs to provide **holistic primary-to-tertiary care**;
  - ♦ Publish a **state transgender health manual**;
  - ♦ Regularly train and hold providers accountable;
  - ♦ Strengthen regulation of empanelled hospitals;
  - ♦ Expand **mental health services** in insurance packages;
  - ♦ Create robust **grievance redress systems**;
  - ♦ Promote research and data collection;
  - ♦ Address societal bias through cross-sector action.
- Transgender persons need to be involved at every stage of policy design, implementation, and monitoring.

[Source: TH](#)

## DRAFT SEEDS BILL, 2025

### Context

- The **Ministry of Agriculture and Farmers Welfare** has released the **draft Seeds Bill, 2025**.

### Major Highlights of the Bill

- The proposed legislation is intended to **replace the existing Seeds Act, 1966 and the Seeds (Control) Order, 1983**.
- **The Bill seeks to:**
  - ♦ regulate the quality of seeds and planting materials available in the market;
  - ♦ ensure farmers' access to high-quality seeds at affordable rates;
  - ♦ curb the sale of spurious and poor-quality seeds;
  - ♦ protect farmers from losses;
  - ♦ liberalise seed imports to promote innovation and access to global varieties;
  - ♦ and safeguard the rights of farmers, ensuring transparency and accountability in seed supply chains.

- **Certification:** Every dealer and distributor in seeds shall obtain a registration certificate from the State government before selling, keeping for sale, offering to sell, importing or exporting.
  - ♦ Existing varieties notified under Seeds Act, 1966, shall be deemed to be registered under the new law.
- **The Central Seed Committee:** The Committee shall be **responsible for implementation of this Act** and shall advise the Central Government and the State Governments.
- **Constitution of State Seed Committee:** It shall consist of a Chairman and other Members not exceeding fifteen, who may be appointed or nominated by the State Government.
- **National Register on Seed Varieties:** A register of all Kinds or Varieties of seed shall be kept under the control and management of the Registrar wherein all specifications shall be maintained.
- **Suspension of Registration:** The Central Seed Committee on receipt of a complaint or suo motu, or on the recommendation of a State Government may suspend the registration for such period as it may deem fit.
- **Offences:** It proposes offences in three categories — trivial, minor and major.
  - ♦ **Major Offences:** Any spurious seeds, supply of seeds of non-registered kind or varieties, and doing the Business without registration.
  - ♦ **Penalty:** For such offences it proposes a maximum penalty of Rs 30 lakh and imprisonment for a term, which may extend up to three years.

### Conclusion

- The Bill seeks to regulate the quality of seeds for sale and import, to facilitate production, and supply of quality seeds.
- The Ministry informed that the stakeholders and members of the public are invited to submit their comments and suggestions on the draft Bill.

Source: TH

## GLOBAL CARBON EMISSIONS ARE PROJECTED TO RISE: GLOBAL CARBON PROJECT

### In News

- New research by the **Global Carbon Project** was released during **COP30 in Belem, Brazil**.

### Global Carbon Project

- It was founded in 2001 through a collaboration of International Geosphere-Biosphere Programme (IGBP), the International Human Dimensions Programme on Global Environmental Change (IHDP), the World Climate Research Programme (WCRP) and Diversitas.
- It is a Global Research Project of Future Earth and partner of the World Climate Research Programme.

### Purpose

- It was established to build a shared scientific knowledge base that informs policy and action to curb greenhouse gas emissions.
- It focuses on the global biogeochemical cycles of **carbon dioxide (CO<sub>2</sub>)**, **methane (CH<sub>4</sub>)**, and **nitrous oxide (N<sub>2</sub>O)**—examining both natural and human drivers and exploring low-carbon pathways.
- Its work complements international efforts under the UNFCCC, including the Kyoto Protocol and Paris Agreement, aimed at balancing greenhouse gas sources and sinks to stabilize the climate system.

### Key Findings of recent research

- **Global carbon emissions** are projected to rise by 1.1% in 2025, reaching 38 billion tonnes.
- **China's emissions** will rise by 0.4% and emissions are projected to grow in the United States (+1.9%) and the European Union (0.4%) in 2025.
- Despite reforestation efforts offsetting half of deforestation emissions, **total CO<sub>2</sub> emissions have slowed to 0.3%** annual growth over the past decade.
- The remaining **carbon budget** to limit warming to 1.5°C—170 billion tonnes—is expected to be **exhausted before 2030**, prompting warnings that climate change is weakening natural carbon sinks.

### India Related Data

- India's emissions are expected to grow by 1.4%—a slower pace than the 4% increase in 2024—due to a favourable monsoon and strong renewable energy growth.
- India is the third largest emitter of carbon at 3.2 billion tonnes annually (2024), led by the U. S. (4.9 billion tonnes) and China (12 billion tonnes).

- India's per capita emissions are among the lowest globally.
  - The rise in emissions is driven by coal (+0.8%), oil (+1%), and natural gas (+1.3%).

Source : [TH](#)

## NEWS IN SHORT

### WORKPLACE STRESS & DIABETES

#### Context

- India has an **estimated 10.1 crore people living with diabetes** according to ICMR-INDIAB, 2023, and **workplace stress may be one of the factors heightening this burden.**

#### Diabetes Burden in India

- India is often called the **diabetes capital of the world.**
- According to the ICMR-INDIAB Study, the diabetic population jumped from about **32 million in 2000, to almost 90 million adults in 2024.**
- Recent reports estimate as many as **1 in 9 Indian adults live with diabetes**, hinting at numbers soaring beyond 100 million in the near future.
- The burden is deepened by **undiagnosed cases and a surge in needless complications.**

#### What is Diabetes?

- Diabetes** is a chronic metabolic disorder in which the body either does not produce enough insulin or cannot effectively use the insulin it produces.
  - This leads to high levels of glucose (sugar) in the blood.
- Insulin:** Insulin is a hormone produced by the **pancreas.**
  - It helps glucose (from food) enter cells, where it is used for energy.
  - When insulin is absent or not working properly, glucose stays in the bloodstream leading to **high blood sugar.**

#### Types of Diabetes

- Type 1 Diabetes:** It is an autoimmune disease where the body's immune system destroys insulin-producing cells. The body produces little or no insulin.
  - It usually begins in childhood or adolescence.
  - It requires lifelong insulin injections.

- Type 2 Diabetes:** This is the most common type of diabetes. The body becomes insulin resistant or doesn't produce enough insulin.
  - It is usually linked to obesity, sedentary lifestyle, unhealthy diet and family history.
  - It can be managed with diet, exercise, oral medications, and sometimes insulin.
- Gestational Diabetes:** This occurs during pregnancy and usually disappears after delivery, but increases the risk of type 2 diabetes later in life.

#### Do You Know?

- World Diabetes Day** is observed on **November 14** each year to raise awareness about diabetes, its prevention, and management.
- The day aims to support individuals living with diabetes and encourage collective actions to reduce the overall burden of the disease.

Source: [TH](#)

### HEPATITIS A

#### Context

- As India debates the inclusion of the typhoid conjugate vaccine in its Universal Immunisation Programme, it raises the question whether **Hepatitis A deserves a priority for inclusion.**

#### What is Hepatitis?

- Hepatitis is an **inflammation of the liver**, there are **five main strains of the hepatitis virus**, referred to as types **A, B, C, D and E.**
  - Types B and C** lead to chronic disease and together are the **most common cause of liver cirrhosis, liver cancer and viral hepatitis-related deaths.**
- Hepatitis A:** It is caused by the Hepatitis A Virus (HAV). It does not cause chronic infection and is usually self-limiting.
  - It spread through contaminated food and water (fecal-oral route).
  - It is entirely preventable where vaccines offer protection rates exceeding 90 to 95%.
- Hepatitis B:** Hepatitis B is known to cause acute infection, liver failure happens in severe cases.
  - Spread:** Spread through blood and body fluids, sexual contact, mother-to-child transmission.

- ♦ **Treatment:** Hepatitis B can be prevented with a vaccine, providing nearly 100% protection against the virus. The vaccine is usually given soon after birth with boosters a few weeks later.
- **Hepatitis C:** The severity from a mild illness to a serious, lifelong illness including liver cirrhosis and cancer.
  - ♦ **Spread:** The hepatitis C virus is a **bloodborne virus** and most infections occur through exposure to blood from unsafe injection practices.
  - ♦ **Treatment:** Direct-acting antiviral medicines (DAAs) can cure more than 95% of persons, there is currently **no effective vaccine** against hepatitis C.
- **Hepatitis D:** It **only** affects people who are **already infected with hepatitis B**, as it needs the hepatitis B virus to be able to survive in the body.
  - ♦ It is usually spread through blood-to-blood contact or sexual contact.
  - ♦ There's no vaccine specifically for hepatitis D, but the hepatitis B vaccine can prevent it.
- **Hepatitis E:** It is generally a mild and short-term infection that does not require any treatment, but it can be serious with a weakened immune system.
  - ♦ There's no vaccine for hepatitis E.

#### Universal Immunization Programme

- UIP was launched in **1978** for protection of children from life threatening conditions by providing **vaccination** entirely funded by the **Central Government**.
- **Beneficiaries:** All children and Pregnant women.
- Under UIP, immunization is providing free of cost **against 12 vaccine preventable diseases:**
  - ♦ **Nationally against 9 diseases:** Diphtheria, Pertussis, Tetanus, Polio, Measles, Rubella, severe form of Childhood Tuberculosis, Hepatitis B and Meningitis & Pneumonia caused by Hemophilus Influenza type B.
  - ♦ **Sub-nationally against 3 diseases:** Rotavirus diarrhoea, Pneumococcal Pneumonia and Japanese Encephalitis.
- A child is said to be fully immunized if the child receives **all due vaccines within the 1st year of child**.

Source: [TH](#)

## RHEUMATOID ARTHRITIS

### Context

- A new study in which researchers mapped the hidden preclinical evolution of **rheumatoid arthritis** at the molecular level and revealed that the immune cells are primed to become troublesome years before the first symptoms appear.

### What is Rheumatoid Arthritis (RA)?

- **Definition:** RA is a **chronic autoimmune disease** in which the immune system mistakenly attacks the joints.
- **Age & Gender Pattern:** It commonly affects individuals between **30–60 years**. **Women are three times more likely** to develop RA than men.
- **Causes and Risk Factors:** The exact cause remains unclear. Likely contributors include – genetic factors, hormones, and environmental triggers such as smoking or certain infections.
- **Systemic Nature:** It is a **systemic disease**, affecting not just joints but also **lungs, heart, eyes, skin, nerves, and blood vessels**.
  - ♦ Persistent inflammation increases the risk of **heart disease** and contributes to **fatigue, fever, and depression**.
- **Treatment and Management:** It is **not curable**, but **early diagnosis and timely management** can; reduce symptoms, slow disease progression, and prevent long-term disability.

Source: [TH](#)

## NEW ROYALTY RATES OF CRITICAL MINERALS

### In News

- The Union Cabinet has approved to specify/revise the **royalty rate** of four critical minerals—caesium, Graphite, Rubidium and Zirconium to promote domestic production.

### What are Critical Minerals?

- They are essential for economic development and national security, and the lack of availability of these minerals or the concentration of extraction or processing in a few geographical locations could potentially lead to **“supply chain vulnerabilities and even disruption of supplies”**.
- In 2023, the Centre identified 30 critical minerals, including lithium, cobalt, nickel, graphite, tin and copper, which are essential for the country's economic development and national security.

### What is Royalty Rate?

- A royalty rate is a **charge imposed by the government on mining companies for extracting minerals from the earth.**
- Royalty rates are governed by **Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) & Mineral Concession Rules, 1960.**
- These laws empower the Central Government to fix and revise royalty rates periodically after consulting State Governments.

### Significance

- Graphite, Caesium, Rubidium and Zirconium are important minerals for high-tech applications and energy transition. This would help in **reducing import dependence.**
- **Graphite** is a crucial component in **electric vehicle (EV) batteries**, primarily serving as the anode material, which enables high conductivity and charge capacity. However, India imports 60% of its requirement of Graphite.
- **Zirconium** is a versatile metal used in various industries, including **nuclear energy**, aerospace, healthcare and manufacturing, due to exceptional corrosion resistance and high temperature stability.
- **Caesium** is mainly used in the high-tech **electronic sector**, particularly in atomic clocks, GPS systems, other high precision instruments, medical instruments including in cancer therapy, etc.
- **Rubidium** is used in making specialty glasses used in **fibre optics**, telecommunication systems, night vision devices etc.

Source: [TH](#)

## SARANDA FOREST

### In News

- The Supreme Court directed the Jharkhand government to declare the ecologically rich **Saranda forest** as a wildlife sanctuary.

### About Saranda

- Saranda Forest in Jharkhand is **Asia's largest Sal (*Shorea robusta*) forest**, spanning approximately 820-900 square kilometers. It is famously called the "**land of seven hundred hills**," reflecting its hilly terrain.
- The forest is part of the **Chhotanagpur bio-geographic zone** and forms a natural landscape continuum with forests of Odisha and Chhattisgarh.

- It is home to critically endangered species, including the endemic sal forest tortoise, four-horned antelope, Asian palm civet, and wild elephants.
- It has been inhabited by the **Ho, Munda, Uraon and allied Adivasi communities** whose subsistence and cultural traditions are intrinsically tied to forest produce.
- It also accounts for **26% of India's iron ore reserves.**

Source: [TH](#)

## REVISIT NEMMP 2020 TO PROMOTE ELECTRIC VEHICLES

### In News

- Recently, the Supreme Court suggested revisiting the **National Electric Mobility Mission Plan (NEMMP) 2020** amid escalating air pollution in Delhi.

### National Electric Mobility Mission Plan (NEMMP) 2020

- It is a National Mission document providing the vision and the roadmap for the faster adoption of electric vehicles and their manufacturing in the country.
- **Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme formulated in 2015** under NEMMP by Ministry of Heavy Industries.
  - ♦ It aims to promote **adoption of electric/ hybrid vehicles (xEVs) in India.**

Source : [TH](#)

## MUDH-NYOMA AIRBASE

### In News

- The Chief of the Air Staff inaugurated the **Mudh-Nyoma airbase in Ladakh.**

### About

- The airbase is situated in Nyoma, Leh district of Ladakh, at an altitude of 13,700 feet (4,200 m), making it one of the world's highest fighter-capable airfields.
- Construction was led by the Border Roads Organisation.
- Its proximity to the LAC gives India critical tactical and logistical advantages, enabling quick response, force projection, and enhanced surveillance in sensitive sectors like Depsang Plains, Pangong Tso, and Chushul Valley.

Source: ET