

● POLITY

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SPORTS

## MANU'S HISTORIC BRONZE OPENS INDIA'S MEDAL HUNT

**CONTEXT:** Three years ago, Manu Bhaker was emotional after a disappointing Tokyo 2020 Olympics campaign, finishing without medals in three events.

**BACKGROUND:** Chateauroux, the 22-year-old athlete, competing in her second Olympics, shed tears of joy after securing a bronze medal in the women's 10m air pistol event. Her victory marked India's first medal at the Paris 2024 Games.



PARIS 2024



### Manu Bhaker's Historic Performance

- **Historic Medal:** Manu Bhaker won India's first-ever Olympic shooting medal, becoming the first Indian woman shooter to achieve this.
- **Final Performance:** In the final, Manu qualified in third place and stayed in medal contention throughout the competition.
- **Narrow Defeat:** Manu was narrowly beaten for the silver medal by South Korea's Kim Yeji by just 0.1 points.

South Korea's Kim Yeji by just 0.1 points.

- **Resilience:** Despite slipping to fourth place, Manu regained her position with a crucial 10.3 shot, staying in the medal bracket.
- **Final Outcome:** Manu ultimately finished with a bronze medal, creating history at the 2024 Paris Olympics and showing remarkable composure.

### Manu Bhaker's Journey to Success

- **Generosity in Luxembourg:** Manu Bhaker, while training in Luxembourg, donated a stack of Euros to street performers as part of a training method.
- **Training Penalties:** Manu's coach, Jaspal Rana, used financial penalties for missed shooting targets to replicate competition stress during training.
- **Mental Preparation:** Before the final, Manu drew inspiration from the Bhagavad Gita to overcome her pre-competition nerves.
- **Olympic Setbacks:** Manu faced significant challenges at the Tokyo Olympics but later reconnected with Rana to overcome her disillusionment with shooting.
- **Ongoing Commitment:** After winning bronze, Manu immediately resumed training for upcoming events, with Rana believing in her potential for further success.

INDIAN POLITY

## TWO HELD DAY AFTER THREE IAS ASPIRANTS DROWN IN BASEMENT

**CONTEXT:** Following the drowning of three Civil Services aspirants in a coaching centre basement, Delhi Police arrested the coordinator and building owner, charging them with culpable homicide.

**BACKGROUND:** Over 20 students were trapped in a basement library at Rau's IAS Study Circle, located eight feet below ground. Water from a burst drain flooded the basement, causing the gate to damage. The Delhi Municipal Corporation is investigating the incident, with conflicting reports on the cause of the flooding.



### Immediate Action After Basement Flooding Incident

- **Mayor's Action:** The mayor ordered the immediate sealing of Rau's IAS Study Circle and 13 other coaching centres operating basements illegally.
- **Student Protests:** Students, protesting the unsafe conditions, highlighted poor drainage and frequent water logging in basements.
- **Police Investigation:** Multiple teams are investigating the incident, focusing on discrepancies in the coaching centre's basement usage and lack of drainage.
- **FIR Registered:** An FIR was filed under various sections, including culpable homicide, against the coaching centre owner for failing to meet safety regulations.
- **Protest Dispersed:** Delhi Police removed protesting students blocking Pusa Road, citing public inconvenience and proximity to hospitals, after one hour of attempts.



*"If you invest more in your education, then you are likely to get more interest in it."*

—Benjamin Franklin

### Roles and Responsibilities of Local Self-Government Agencies (LSGDs)

- **Urban Planning and Zoning:** LSGDs prepare development plans and enforce zoning regulations to guide organized and sustainable urban growth.
- **Building Permits:** They review applications, approve plans, and conduct inspections to ensure compliance with local building codes and safety standards.
- **Licensing of Establishments:** LSGDs issue business, trade, and health-related licenses, ensuring compliance with local laws and safety regulations.
- **Environmental and Safety Regulations:** They enforce environmental clearances and fire safety norms for new developments and existing establishments.
- **Public Consultation and Coordination:** LSGDs conduct public hearings, handle grievances, and coordinate with other government agencies to streamline development processes.

## GOVERNANCE

### NITI AAYOG FACES STRUCTURAL AND FUNCTIONAL ISSUES

**CONTEXT:** The ninth NITI Aayog Governing Council meeting, chaired by PM Modi, saw 10 State and UT representatives skip or boycott it, raising doubts about the think tank's role.

**BACKGROUND:** The ninth NITI Aayog Governing Council meeting, chaired by PM Modi, saw a boycott from 10 State and Union Territory representatives, including Chief Ministers from Tamil Nadu, Kerala, Karnataka, and others. Their protest over perceived budget inequities highlights growing dissatisfaction with the think tank's advisory role.

#### Challenges and Criticisms of NITI Aayog

- **NITI Aayog Formation:** Established by NDA to replace the Planning Commission, focusing on cooperative federalism instead of a top-down approach.
- **Advisory Role:** NITI Aayog's advisory role limits its power in resource distribution and allocation to States.
- **Competitive Federalism:** The shift to advisory functions led to competitive federalism, with the Finance Ministry controlling state grants.
- **State Consultations:** Unlike the Planning Commission, NITI Aayog has reduced consultations with States on grants and projects.
- **BJP's "Double Engine" Strategy:** BJP's campaign strategy of promoting "double engine" governments has led to complaints of favouritism towards BJP-ruled States.
- **Finance Ministry's Focus:** The Finance Ministry is focused on macro-economic stability but lacks institutional backing for addressing State-specific infrastructure needs.
- **Re-envisioning NITI Aayog:** There is a call to re-envision NITI Aayog to reintegrate responsibilities of the Planning Commission for effective cooperative federalism.



## NITI Aayog

### Overview of NITI Aayog and Its Functions

- **Establishment:** NITI Aayog was established on January 1, 2015, in New Delhi, replacing the Planning Commission.
- **Differences from Planning Commission:** NITI Aayog does not formulate five-year plans or allocate funds, unlike its predecessor.
- **Objectives:** Focuses on shared vision, cooperative federalism, credible planning, supporting weaker sections, and innovation.
- **Approach:** Follows a bottom-up approach, contrasting with the top-down method of the Planning Commission.
- **Composition:** Includes a Chairman, Vice-Chairman, CEO, ex-official and part-time members, and a Governing Council with chief ministers.

## ECOLOGY AND ENVIRONMENT

### MORE EFFORT NEEDED TO REDUCE PLASTIC PRODUCTION

**CONTEXT:** India, like other large economies, generates four million tonnes of plastic waste annually, according to a 2020-21 Central Pollution Control Board report.

**BACKGROUND:** A 2020-21 CPCB report reveals that India generates four million tonnes of plastic waste annually, with only 25% being recycled. Despite regulations since 2016 requiring plastic users to manage and recycle their waste, most plastic ends up in landfills or is improperly disposed of.



### Challenges and Responses in India's EPR System

- **EPR Rules:** Extended Producer Responsibility (EPR) system mandates recycling through an online platform, involving packagers and recyclers.
- **Fraudulent Certificates:** In 2022-23, about 600,000 of 3.7 million tonnes of recycled plastic certificates were found fraudulent.
- **Security Issues:** Hackers stole and sold several thousand certificates, prompting a CPCB audit and security overhaul.
- **CPCB Actions:** CPCB audited 800 firms and revamped the EPR platform, causing delays in filing returns for 2023-24.
- **Future Directions:** Addressing plastic waste requires reducing production, enhancing recycling effectiveness, and tackling root causes, beyond market-driven solutions.

### Comprehensive Measures for Plastic Waste Management in India

- **SBM-U 2.0 Focus:** Emphasizes plastic waste reduction, compliance with Plastic Waste Management (PWM) Rules, and improving waste management practices.
- **Plastic Waste Management Advisory:** Guides on managing plastic waste through reduce, reuse, recycle, and recovery techniques.
- **EPR Guidelines:** MoEF&CC issued EPR guidelines for plastic packaging in 2022 and 2024 to enforce plastic waste management.
- **Special Task Forces:** States/UTs have established STF for eliminating single-use plastics and implementing Plastic Waste Management Rules.
- **Innovation and Alternatives:** "India Plastic Challenge" and National Expo promote eco-friendly alternatives like seaweed, bagasse, and jute to replace single-use plastics.

### Plastic Waste Management (Amendment) Rules 2024

- **Biodegradable Plastics:** Defined as plastics degrading biologically in specific environments without leaving microplastics; microplastics are solid particles 1-1,000 microns.
- **Microplastics Testing:** Rules lack specific chemical tests for microplastics or reduction levels for elimination.
- **Expanded Importer Definition:** Now includes imports of various plastic-related materials, not just packaging and carry bags.
- **Inclusive Manufacturer Scope:** Encompasses production of plastic raw materials, compostable, and biodegradable plastics, broadening the term's coverage.
- **Certification Requirement:** Manufacturers must obtain CPCB certification for compostable or biodegradable plastic products before marketing or selling.



*"Education is the ability to listen to almost anything without losing your temper or your self-confidence." - Robert Frost*

## SOCIAL JUSTICE

# RECASTING CARE MODELS FOR MENTAL ILLNESS, HOMELESSNESS

**CONTEXT:** Two decades ago, mental health professionals and bureaucrats focused on shelter and treatment, often limiting choices and creativity, not considering alternative cultural experiences and freedoms.

**BACKGROUND:** Socio-normative views have often cast homeless persons with mental illness as mere subjects for rescue missions, focusing on relocating them to mental hospitals or shelters. This approach, though well-intentioned, has historically overlooked their autonomy and choice, revealing a need for more nuanced perspectives on safety and freedom.

### Reimagining Care for Homeless and Mentally Ill Individuals

- **Lived Experience Engagement:** Engaging with lived experience experts challenges traditional notions of care and responsiveness for homeless individuals.
- **Support Circles:** Homeless people often form support networks with fellow individuals, local eateries, and pets, creating a sense of belonging.
- **Collaboration Efforts:** Initiatives like the National Health Mission and The Banyan offer emergency care and recovery centres, improving immediate care.
- **Transformation in Care:** Shifting to smaller, well-staffed units provides better medical care and personal attention, addressing comorbidities from enduring adversities.
- **Policy and Symbolism:** Recent policies need deeper engagement; appearance symbols like shaven heads should not be conflated with mental illness.



### Enhancing Rehabilitation and Housing for Long-Term Psychiatric Patients

- **Long-Term Needs:** About 37% of people in psychiatric facilities experience long-term needs, with a median stay of six years.
- **Rehabilitative Mandate:** The 2017 Supreme Court ruling mandated rehabilitative measures, but community re-entry pathways remain limited and custodial.
- **Institutional Limitations:** Current semi-institutional options often perpetuate poor quality of life and rights violations, with rigid eligibility criteria.
- **Innovative Housing Models:** Housing First and Tarasha, along with India's 'Home Again,' show success in providing

comprehensive social and clinical care.

- **Alternative Facilities:** Hostel-like co-living options, symbolizing social capital and security, may offer better transitions from hospital settings than traditional rehabilitation homes.

#### Rethinking Support for Homeless People with Mental Illness

- **Disability Allowance:** A ₹1,500 monthly disability allowance could be crucial for marginalized homeless individuals, enhancing financial inclusion.
- **Documentation and Access:** Simplifying Aadhar and banking access is essential for financial inclusion and empowerment of HPMI.
- **Holistic Approaches:** Addressing discrimination and integrating post-discharge support within the District Mental Health Programme is crucial for effective care.
- **Economic Justice:** Social cooperatives offer meaningful engagement and community, contrasting with traditional employment models that often overlook individual agency.
- **Tamil Nadu Initiative:** Tamil Nadu's upcoming policy aims to integrate inclusive approaches, challenging the charity-based view and promoting HPMI's agency and societal participation.

## SCIENCE AND TECHNOLOGY

# THE RIGHT WAY TO COUNTER A POOR COVAXIN SAFETY STUDY

**CONTEXT:** Published in Drug Safety, the Covaxin study faced major limitations, which Bharat Biotech highlighted on May 16, 2024, three days after the paper's release.

**BACKGROUND:** The Indian Council of Medical Research (ICMR) swiftly criticized the flawed design of a long-term safety study on Covaxin by Banaras Hindu University researchers. Published in Drug Safety, the study faced immediate scrutiny from both ICMR and Bharat Biotech, highlighting significant limitations.



#### Evaluating Vaccine Safety: A Comparison of Study Approaches

- **Study Limitations:** The BHU study lacked a control arm and relied on recall, making it difficult to determine Covaxin's safety.
- **Importance of Control:** A control arm is crucial for assessing vaccine safety and ruling out causality of adverse events.
- **Clinical Evaluation:** Long-term studies with clinical evaluation of

- adverse events are essential for reliable vaccine safety data.
- **Ideal Study Design:** A phase-3, randomised, controlled trial with a large sample size is ideal for accurate vaccine safety assessment.
- **Bharat Biotech Trial:** Bharat Biotech's phase-3 trial, involving 25,800 participants, provided interim safety data up to 56 days post-vaccination.

#### Issues with Covaxin and Covishield Trial Reporting

- **Publication Delay:** Bharat Biotech and ICMR have not published long-term safety data for Covaxin's phase-3 trial, despite completion.
- **Trial Duration:** The phase-3 trial for Covaxin was only one year, yet final safety data remains unpublished.
- **Track Record:** Bharat Biotech's failure to publish Covaxin's final safety data is surprising given their history of transparency.
- **Emergency Authorisation:** Covaxin was granted emergency-use authorisation in January 2021, with safety data expected from ongoing follow-ups.
- **Adverse Effects:** By March 2021, Covaxin was administered to over 19 lakh people, with 311 reported side-effects.
- **Covishield Study:** A similar study on Covishield had comparable limitations and reported increased risk of adverse events post-COVID-19.
- **ICMR Bias:** ICMR criticized Covishield's study but failed to address similar issues in the Covaxin study, raising concerns about bias.
- **Demand for Transparency:** ICMR and Bharat Biotech should publish the long-awaited Covaxin safety data and avoid academic censorship.



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## SOCIAL JUSTICE

## DEFENDING DISABILITY RESERVATIONS

**CONTEXT:** Puja Khedkar's alleged falsification of disability and caste for benefits has sparked a debate on the reservations granted to persons with disabilities (PwDs).

**BACKGROUND:** The debate intensified when a former NITI Aayog CEO suggested reviewing reservations for persons with disabilities (PwDs). Although he later specified mental disabilities, his comment—and similar remarks from other officials—sparked concerns about societal attitudes and the treatment of reservation policies for disabilities.



### Challenges and Bias Against Persons with Disabilities (PwDs)

- **Limited Interaction:** Officers rarely interact with or understand the challenges faced by PwDs, reflecting deep-rooted ableism.
- **Barriers to Participation:** PwDs encounter barriers in infrastructure, education, and employment, affecting their societal and workforce integration.
- **Reservation Policies:** Exploitation of benefits by a few should not overshadow the positive impact of reservation policies for PwDs.
- **Employment Statistics:** Only 23.8% of PwDs were employed in 2018, compared to a 50.2% national Labour Force Participation Rate.
- **Individual Cases:** PwDs like Kartik Kansal and Ira Singhal face significant obstacles in securing posts despite their achievements.

### Challenges in Disability Certification and Reservation Systems in India

- **Misuse Concerns:** Supreme Court ruling emphasizes fair treatment for PwDs; provisions shouldn't be restricted due to potential misuse.
- **Outdated Certification:** Disability assessment should focus on functional limitations rather than outdated percentage-based systems.
- **Inconsistent Assessments:** UPSC's separate disability assessment conflicts with government-issued certificates, leading to contradictory results.

- **Assessment Challenges:** Lack of specialists and unrealistic guidelines make disability certification inaccessible and subjective.
- **Systemic Issues:** Focus should be on systemic issues rather than revising reservation systems, which support marginalized PwDs.

### Rights of Persons with Disabilities Act, 2016 (RPwD Act)

- **Enactment Date:** The RPwD Act, replacing the 1995 Act, came into force on April 19, 2017.
- **Expanded Definition:** Disability types increased from 7 to 21; Central Government can add more types.
- **Benchmark Disabilities:** Defined as having at least 40% disability; entitled to specific rights and benefits.
- **Education Rights:** Children with benchmark disabilities aged 6-18 have the right to free education.
- **Reservations:** 5% reservation in higher education and 4% in government jobs for persons with benchmark disabilities.
- **Accessibility:** Mandates accessibility in public buildings (government and private) within a specified timeframe.
- **Penalties:** Violations of the Act attract imprisonment up to two years and fines ranging from ₹10,000 to ₹500,000.
- **Special Courts:** Designated in each district to handle cases of rights violations against persons with disabilities.

## ECOLOGY AND ENVIRONMENT

### SOUTH AFRICA'S NEW LAW ON CLIMATE CHANGE

**CONTEXT:** South Africa's President Cyril Ramaphosa has enacted legislation mandating emission limits for large fossil-fuel industries to curb environmental impact.

**BACKGROUND:** South African President Cyril Ramaphosa signed a law imposing mandatory emission limits on major fossil-fuel industries and requiring climate-adaptation plans for communities. This legislation aims to help South Africa fulfill its emissions reduction targets under the Paris Agreement.

#### South Africa's Climate Change Commitments and Actions

- **Greenhouse Gas Emissions:** South Africa, a top GHG emitter, had 405 Mt CO<sub>2</sub>e in 2022, a 3% decrease from 2021.
- **Energy Sector Emissions:** The energy sector contributes ~80% of emissions, with energy industries at ~60% and transport at ~12%.
- **Nationally Determined Contributions (NDC):** Updated NDC commits to reducing emissions by 31%, targeting 398-510 Mt CO<sub>2</sub>e by 2025.
- **Net Zero Goal:** South Africa aims for 'net zero emissions' by 2050, outlined in its 2020 Low-Emission Development Strategy.
- **Financial Needs:** South Africa estimates needing \$8 billion per year by 2030 to meet its climate targets.

- **Just Transition Framework:** The 2022 framework by the Presidential Climate Commission focuses on equitable policy shifts in climate and development.

India lacks a comprehensive climate change law, though climate-related issues are addressed in various acts. The Supreme Court recently highlighted the need for explicit climate change legislation, linking it to fundamental rights. Meanwhile, India has committed to significant emission reductions and increased non-fossil energy use by 2030.

## ECOLOGY AND ENVIRONMENT

### CITES RELAXES AGARWOOD EXPORT RULES, AIDING FARMERS

**CONTEXT:** India has successfully blocked the inclusion of agarwood (*Aquilaria malaccensis*) in CITES' Review of Significant Trade, avoiding trade restrictions on the species.

**BACKGROUND:** CITES has set a new export quota for India's valuable agarwood resin and oil, effective April 2024. This move will benefit farmers across Assam, Manipur, Nagaland, and Tripura, where agarwood is cultivated, by boosting their economic prospects.



#### Regulation and Challenges of *Aquilaria malaccensis* Trade

- **CITES Listing:** *Aquilaria malaccensis* was listed in CITES Appendix II in 1995, based on India's proposal at CoP9.
- **NDF Study:** The Botanical Survey of India and MoEFCC conducted an NDF study, recommending controlled harvesting from plantations, not wild populations.
- **Export Quota:** For 2024–2027, the NDF sets annual export quotas of 151,080 kg for agarwood chips and 7,050 kg for oil.
- **Informal Trade:** Absence of export quotas led to increased informal trade of agarwood products to the Middle East and other countries.
- **Price Increase:** The informal trade contributed to higher global prices for agarwood chips and oil, affecting the market.
- **Illegal Trade Seizures:** Between 2017 and 2021, over 1.25 tonnes of chips and six litres of oil were seized in India.

#### Overview of CITES: Regulation of International Wildlife Trade

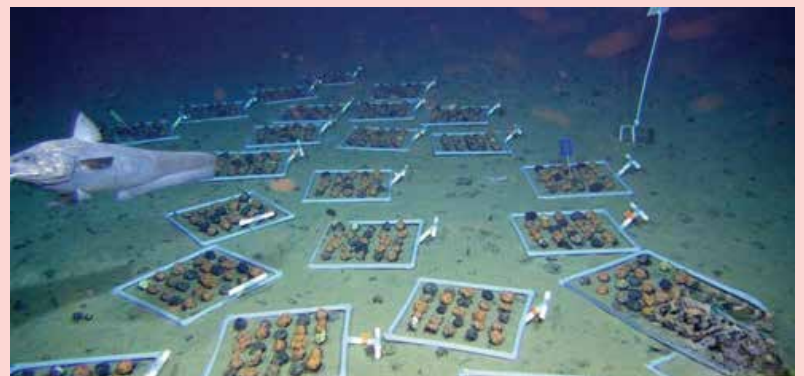
- **Objective:** CITES aims to ensure international trade in wild animals and plants does not threaten their survival.
- **Adoption:** CITES was adopted in 1973 and came into force in 1975, with 184 member parties.
- **Species Coverage:** The convention regulates trade in over 38,000 species, categorizing them into three Appendices.
- **Appendix I:** Includes species threatened with extinction, prohibiting commercial trade to ensure the highest protection.
- **Appendix II:** Covers species not currently threatened but potentially at risk without trade controls; regulated trade allowed.
- **Appendix III:** Contains species for which countries seek international trade controls; regulated by export permits and certificates of origin.

## SCIENCE AND TECHNOLOGY

### SURPRISING 'DARK OXYGEN' DISCOVERY COULD ENSNARE DEEP-SEA MINING

**CONTEXT:** Scientists have discovered an unknown process producing oxygen in deep ocean regions, challenging previous understandings and suggesting hidden ecosystems.

**BACKGROUND:** Polymetallic nodules on the ocean floor, which can release oxygen by splitting water molecules, are attracting global attention for their mining potential. India plans to apply for exploration licenses in the Pacific Ocean and is developing a submersible for deep-sea mining as part of its 'Deep Ocean Mission'.



#### Unexpected Oxygen Findings in the Clarion-Clipperton Zone

- **Study Focus:** Scientists from Germany, the U.K., and the U.S. examined the Clarion-Clipperton Zone's deep-sea environment.
- **Resource Richness:** The Zone, larger than India, has high concentrations of polymetallic nodules with 6 billion tonnes of manganese.
- **Oxygen Anomaly:** At 4 km depth, oxygen levels unexpectedly

- increased, contrary to expected decreases due to animal consumption.
- Experimental Method: Devices released from the surface measured oxygen in isolated ocean floor samples, showing rising levels.
- Lab Verification: Recreating ocean floor conditions in the lab confirmed oxygen levels initially increased before eventually dropping.

#### Impact of Deep-Sea Mining and Discovery of 'Dark Oxygen'

- Nodule Voltage: Polymetallic nodules have surfaces with up to 0.95 V, potentially creating a 'dark oxygen' source.
- 'Dark Oxygen' Discovery: Andrew Sweetman noted this new oxygen source, essential for life, differs from photosynthesis.

- Mining Concerns: Deep-sea mining, with contracts from the International Seabed Authority, may harm ecosystems reliant on 'dark oxygen.'
- Historical Impact: The DISCOL Experiment (1989-1996) showed long-lasting environmental effects from simulated deep-sea mining.
- Long-Term Effects: A 2019 study found mining impacts from DISCOL still affected the Peru Basin's megabenthos after 26 years.

Studies suggest that deep-sea mining could cause significant environmental damage, including irreversible loss of ecosystem functions and harm to deep-sea jellyfish. The uncertainty surrounding abyssal ecosystems and new challenges like 'dark oxygen' have led major European insurers to exclude deep-sea mining from their portfolios.



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