

## 7 PM COMPILATION

March, 2022

### Features of 7 PM compilation

- ❖ Comprehensive coverage of a given current topic
- ❖ Provide you all the information you need to frame a good answer
- ❖ Critical analysis, comparative analysis, legal/constitutional provisions, current issues and challenges and best practices around the world
- ❖ Written in lucid language and point format
- ❖ Wide use of charts, diagrams and info graphics
- ❖ Best-in class coverage, critically acclaimed by aspirants
- ❖ Out of the box thinking for value edition
- ❖ Best cost-benefit ratio according to successful aspirants

The IPCC Sixth Assessment Report (Part 2) – Explained, pointwise

**Topic:-** Environment and Bio-diversity

**Sub topic:-**Climate Change

Medical Education in India and Associated Issues – Explained, pointwise

**Topic:- Social Justice**

**Sub topic:-** Issues relating to development and management of **Social Sector/Services relating to Education**

[Kurukshehra February Summary] Maternal and Child Health – Explained, pointwise

**Topic:- Social Justice**

**Sub topic:-** Issues relating to development and management of **Social Sector/Services relating to Health**

Green Hydrogen Policy – Explained, pointwise

**Topic:- Science and Technology**

**Sub topic:-** Indigenization of technology and developing new technology.

India's Defense Manufacturing Sector: Challenges and Opportunities – Explained, pointwise

**Topic:- Science and Technology**

**Sub topic:-** Indigenization of technology and developing new technology.

Sanctions and their Effectiveness – Explained, pointwise

**Topic:- International Relations**

**Sub topic:-** Effect of policies and politics of developed and developing countries on India's interests

Female Labour Force in India – Trends and Challenges – Explained, pointwise

**Topic:- Economic development**

**Sub topic:-** Inclusive growth and issues arising from it.

Prohibition of Liquor: Benefits and Challenges – Explained, pointwise

**Topic:- Governance**

**Sub topic:-** Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

National Land Monetisation Corporation (NLMC): Functions and Benefits – Explained, pointwise

**Topic:- Economic development**

**Sub topic:-** Land reforms in India.

[Yojana March Summary] Harnessing Multiplier Effect – Explained, pointwise

**Topic:- Economic development**

**Sub topic:- Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.**

Nuclear Energy: Status, Advantages and Concerns – Explained, pointwise

**Topic:- Economic development**

**Sub topic:- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.**

Cheetah Reintroduction in India – Explained, pointwise

**Topic:- Environment and Bio-diversity**

**Sub topic:- Conservation**

Maternal Mortality Ratio in India: Status, Challenges and Way Forward – Explained, pointwise

**Topic:- Social Justice**

**Sub topic:- Issues relating to poverty and hunger.**

Karnataka High Court Judgment on Hijab – Explained, pointwise

**Topic:- Indian Constitution and Polity**

**Sub topic:- significant provisions and basic structure**

The Issue of Sealed Cover Jurisprudence – Explained, pointwise

**Topic:- Indian Constitution and Polity**

**Sub topic:- Structure, organization and functioning of the Executive and the Judiciary**

[Kurukshetra March Summary] Agriculture Development – Explained, pointwise

**Topic:- Economic development**

**Sub topic:- Transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.**

India-Australia Bilateral Relationship – Explained, pointwise

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**Sub topic:- Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.**

Central University Entrance Test: Benefits and Concerns – Explained, pointwise

**Topic:- Social Justice**

**Sub topic:- Issues relating to development and management of Social Sector/Services relating to Education.**

Combating TB: Lessons from COVID-19 – Explained, pointwise

**Topic:- Social Justice**

**Sub topic:- Issues relating to development and management of Social Sector/Services relating to Health.**

Comparison of National Pension Scheme with Old Pension System – Explained, pointwise

**Topic:- Social Justice**

**Sub topic:- Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes**

Heat Waves: Rising Frequency and Intensity – Explained, pointwise

**Topic:- Disaster Management**

**Sub topic:- Disaster and disaster management.**

India's Exports Reach US\$ 400 billion: Reasons, Challenges and Way Ahead – Explained, pointwise

**Topic:- Economic development**

**Sub topic:- Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.**

5th BIMSTEC Summit – Explained, pointwise

**Topic:- International Relations**

**Sub topic:- India and its neighbourhood- relations.**

Criminal Procedure (Identification) Bill: Features, Benefits and Concerns – Explained, pointwise

**Topic:- Governance**

**Sub topic:- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.**

The Assam-Meghalaya Boundary Dispute Resolution – Explained, pointwise

**Topic:- Indian Constitution and Polity**

**Sub topic:- Separation of powers between various organs dispute redressal mechanisms and institutions.**



## The IPCC Sixth Assessment Report (Part 2) – Explained, pointwise

### Introduction

The latest report of the Intergovernmental Panel on Climate Change (IPCC) has been released on 28th February, 2022. It is the **second part of IPCC Sixth Assessment Report**. The report has warned of multiple climate change-induced disasters in the next two decades even if strong action is taken to reduce the emissions of greenhouse gases.

The report has said the ability of human beings, and natural systems, to cope with the changing climate was already being tested, and further rise in global warming would make it even more difficult to adapt. In this regard strong commitments and their conversion into reality is desired for tackling climate change.

### What is the IPCC?

It is an intergovernmental body of the United Nations for assessing the science related to climate change. It was **established in 1988 by UNEP and WMO** (World Meteorological Organization). It provides policymakers with regular scientific assessments related to climate change. India is also a member of IPCC.

IPCC itself **does not conduct any research nor does it monitor climate related data** or parameters. Instead, thousands of scientists from all over the world contribute to the work of IPCC on a voluntary basis. The IPCC is divided into 3 Working Groups (WG) that deal with: **(a)** Study the science of climate change (WGI); **(b)** Impacts and Adaptation (WGII); **(c)** Mitigation (WGIII).

### What is the IPCC Assessment Report?

The Assessment Reports are the **most comprehensive evaluations** of the state of the earth's climate. Hundreds of experts go through every available piece of relevant, published scientific information to prepare a common understanding of the changing climate.

The first assessment report was released in 1990 and the subsequent editions were released in 1995, 2001, 2007 and 2015.

The first part of IPCC Sixth Assessment Report was released in August 2021. It was centered around the scientific basis of climate change. The second part talks about **climate change impacts, risks and vulnerabilities, and adaptation options**. The third and final part of the report, which will look into the **possibilities of reducing emissions**, is expected to come out later in the year.

**Read More:** [IPCC's Sixth Assessment Report: Findings and Suggestions – Explained, pointwise](#)

### What are the key findings of the Sixth Assessment Report?

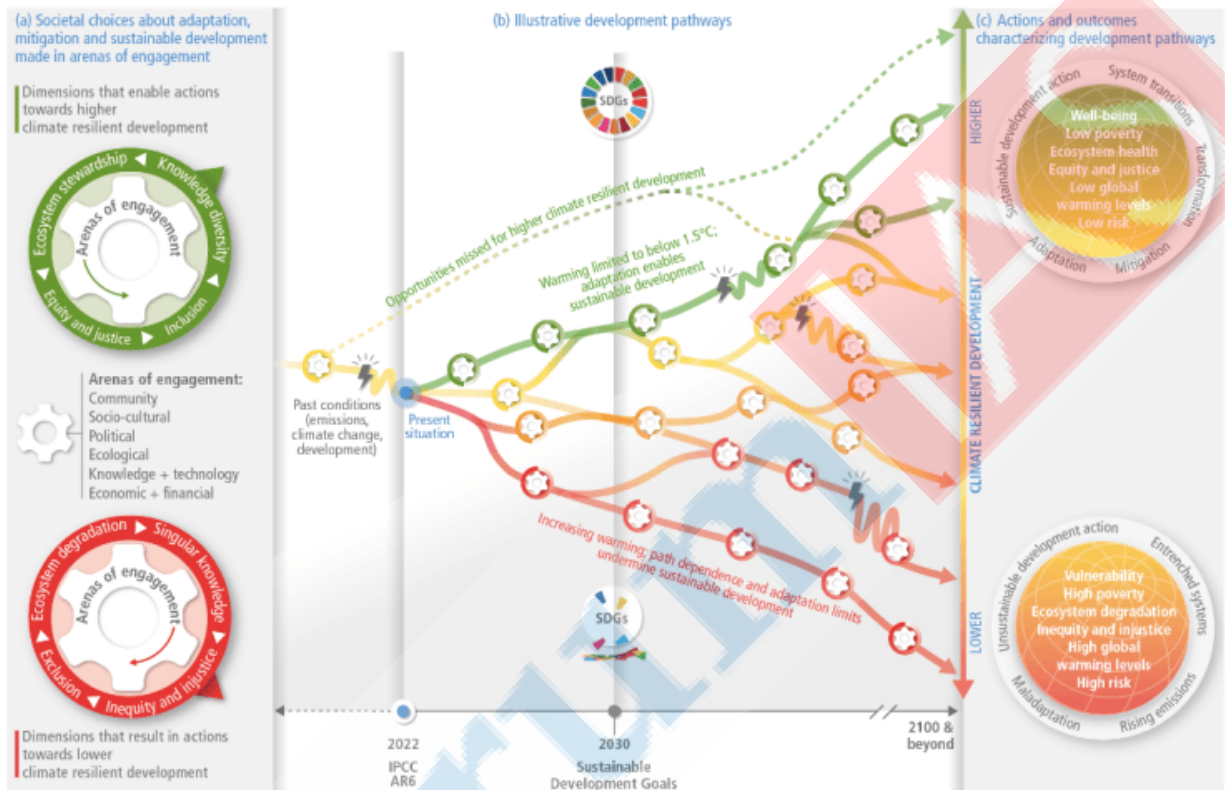
**Vulnerability Mapping:** Over 45% of the global population is living in areas highly vulnerable to climate change. Observed impacts are concentrated amongst the economically and socially marginalized urban residents.

**Degree of Impact:** The impacts are more disruptive and more widespread compared to 20 years ago. If the temperature rise crossed the threshold of 1.5°C from pre-industrial times, then many changes could be **irreversible**. Infrastructure, including transportation, water, sanitation and energy systems have been compromised by extreme and slow-onset events. This has resulted in economic losses, disruptions of services and impacted the overall well-being.

Climate change will **severely impact food production and food security**. Droughts and heatwaves will trigger biodiversity loss, as well as human migration

Global sea levels will likely rise 44-76 cm this century if governments meet their current emission-cutting pledges. With faster emission cuts, the increase could be limited to 28-55 cm

### There is a rapidly narrowing window of opportunity to enable climate resilient development



Source: IPCC Sixth Assessment Report (WGII)

The report observes that the **window of opportunity to enable climate resilient development is rapidly narrowing**.

**Adaptation efforts:** The report has recognised that progress is being made to adapt to the new situation, but in most places, it is nowhere close to what is required to be done. It has said the **gaps in adaptation** were a result of **lack of funds, political commitment, absence of reliable information and a sense of urgency**.

**New Coverage:** The latest report has, for the first time, made an assessment of **regional and sectoral impacts of climate change**. It has included risks to, and vulnerabilities of, mega-cities around the world.

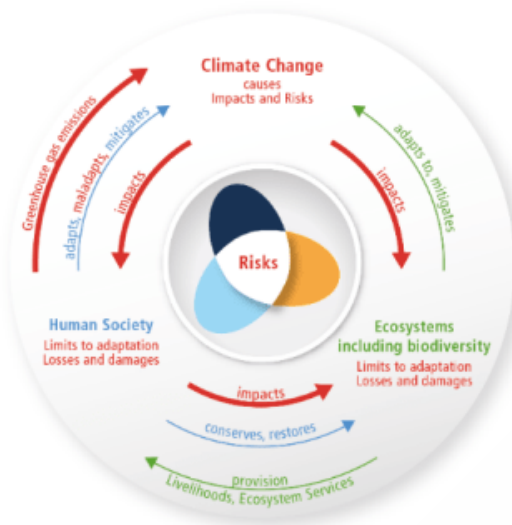
Also for the first time, the IPCC report has looked at **the health impacts of climate change**. It has found that climate change is **increasing vector-borne and water-borne diseases** such as malaria or dengue, particularly in sub-tropical regions of Asia.

Increasing frequency of extreme weather events like heat waves, flooding and drought, and even air pollution was contributing to under-nutrition, allergic diseases and even mental disorders.

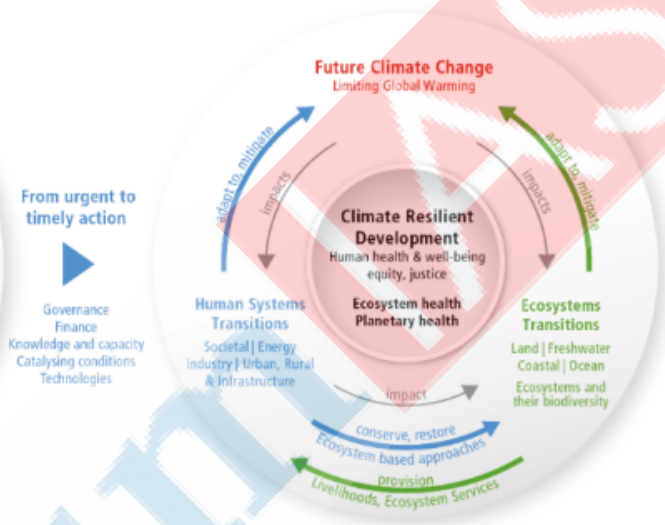
The report has a strong focus on the interactions among the coupled systems viz. **climate, ecosystems** (including their biodiversity) **and human society**. These interactions are the basis of emerging risks from climate change, ecosystem degradation and biodiversity loss and, at the same time, offer opportunities for the future.

#### From climate risk to climate resilient development: climate, ecosystems (including biodiversity) and human society as coupled systems

(a) Main interactions and trends



(b) Options to reduce climate risks and establish resilience



The risk propeller shows that risk emerges from the overlap of:



Source: IPCC Sixth Assessment Report (WGII)

Meeting the objectives of climate resilient development requires society and ecosystems to move over (transition) to a more resilient state. The recognition of climate risks can strengthen adaptation and mitigation actions and transitions that reduce risks. Taking action is enabled by **governance, finance, knowledge and capacity building, technology and catalysing conditions**.

#### What are the findings of the report with respect to India?

The report identifies **India as one of the vulnerable hotspots**, with several regions and important cities facing **very high risk of climate disasters such as flooding, sea-level rise and heat-waves**.

For instance, **Mumbai is at high risk of sea-level rise and flooding**, while **Ahmedabad faces serious danger of heat-waves**. Several cities, including **Chennai, Bhubaneswar, Patna and Lucknow** are approaching **dangerous levels of heat and humidity**.

By the middle of the century, **around 35 million people in India could face annual coastal flooding**, with 45-50 million at risk by the end of the century if emissions are high.

Climate change and rising demand would lead to at least **40% of the Indian population living with water scarcity by 2050** compared with about 33% now. It is estimated that both the Ganges and Brahmaputra river basins will witness increased flooding as a result of climate change.

The report says that **wheat, pulses, coarse and cereal yields could fall almost 9% by 2050**. These disruptions to crop production are expected to cause price spikes in India, threatening food affordability, food security and economic growth.

**Direct damage is estimated at \$24 billion** if emissions are cut as currently promised, and \$36 billion, if the emissions remain high and ice sheets are unstable.

At present, **wet-bulb temperatures in India rarely exceed 31 degrees C**, with most of the country experiencing maximum wet-bulb temperatures of 25-30 degrees C.

It notes that if emissions are cut, but only by the levels currently promised, many parts of northern and coastal India would reach extremely dangerous wet-bulb temperatures of over 31 degrees C towards the end of the century.

#### What is Wet-Bulb Temperature?

- It is a measure that combines heat and humidity. A **wet-bulb temperature of 31 degrees Celsius is extremely dangerous for humans**, while a value of 35 degrees is unsurvivable for more than about six hours, even for fit and healthy adults.

#### What is the significance of the IPCC Assessment Reports?

**Policy Formulation:** IPCC reports form the scientific basis on which countries across the world build their policy responses to climate change. They are meant to present factual situations with as much scientific evidence as is possible.

**High Degree of Credibility:** The fact that these findings are the product of the combined understanding of the largest group of experts on climate science lends it a credibility greater than any individual study.

**Bridges the capacity divide:** The reports present information related to the most vulnerable regions which helps nations take proactive steps for their protection. This is of very high relevance particularly for countries that lack the resources or the capacity to make their own impact assessments.

**Global Cooperation:** These reports also form the basis for international climate change negotiations that decide on the responses at the global level. It is these negotiations that have produced the Paris Agreement, and previously the Kyoto Protocol. The Paris Agreement was negotiated on the basis of the Fifth Assessment Report.

#### What are the challenges faced by nations in tackling climate change?

**Financial Constraints:** Many nations don't have enough financial resources to do considerable investment in critical sectors such as urban infrastructure and prepare social safety nets for the most vulnerable populations.

**Lack of Political Will:** Climate Change and the associated impacts have still not become electoral issues in most countries. This puts climate change on the back seat and results in half hearted efforts.



**Geopolitical Instability:** The conflicts in the Middle East, Africa and recently in Ukraine brutally hurt the economic capabilities of nations. This impedes their efforts towards tackling climate change.

### What should be done?

**First, masses should be sensitized towards climate change** by taking support of NGOs like GreenPeace India. This would also help in creation of Climate Change based Political Parties.

**Second**, countries must switch to **Green GDP or Green Accounting** in order to decrease damage to the environment.

**Third**, Developed countries must accept historical responsibility and provide financial resources to the developing countries based on the **principle of equity and justice**.

**Fourth**, Adaptation efforts must go hand in hand with ambitious reductions in greenhouse gas emissions. As with increased warming, the effectiveness of many adaptation options declines.

In this regard, the successful local level adaptation plans in cities such as Surat, Bhubaneswar and Indore can be adopted. They have enabled its people to make cities resilient to climate change.

### Conclusion

Each of these IPCC's reports have also progressively expanded the scope of their assessment, and introduced fresh information about different aspects of climate change. Mere acknowledgement of the findings by the nations is not enough, rather broad consensus at national and international level is desired to mitigate climate change.

**Source:** [The Hindu](#), [Indian Express](#), [Indian Express](#), [Business Standard](#), [The Times of India](#), [The Times of India](#).

## Medical Education in India and Associated Issues – Explained, pointwise

### Introduction

Among the Indians waiting to be evacuated from Ukraine following the Russian invasion, majority are students who had been pursuing medical education from Ukraine. According to the Ukraine's Ministry of Education and Science, there are around 18,095 Indian students in the country. In 2020, 24% of Ukraine's overseas students were from India. This article will discuss the issues that compel Indians to go abroad for getting their medical degree, issues with the present medical education system in India and the remedial steps to improve the condition of medical education in our country.

### What is the current status of Medical Education in India?

There are nearly 90,000 MBBS seats in the country in around 540+ medical colleges. This comes to one medical college for every 2.57 million people (The number is 1 College for every ~ 1.7 million in the US) and 65 seats per 1 million of population. According to the President of the Medical Assessment and Rating Board, under the National Medical Commission, India is expected to have 100 medical seats for 1 million population very soon i.e., the capacity is expected to be enhanced by 50%.

Many medical colleges have limited facilities and the traditional model of postgraduate medical education offers woefully inadequate opportunities. These are 6,000 MD/MS seats and 16,000 seats via the Diplomate of National Board qualifications each year.

Traditionally, the most sought-after international destinations for medical education were the U.S., the U.K. and a few west European countries. However in the last few decades, Russia, China and Ukraine have been able to offer more affordable and quality education to Indians.

### What factors pull the students to pursue medical education abroad?

**Affordability:** Medical education in Ukraine, Russia and China is more economical than private medical colleges in India. The cost of graduating in medicine in Ukraine is around INR 15-20 lakh for the entire duration of six years. In India, fees of private medical colleges can range between INR 50 lakh to Rs 1.5 crore for a 4.5-year course. A range of other charges are added on to the fees, such as hostel and mess charges, development charges and examination fees further adding to the cost.

**Entrance Requirements:** Many foreign universities either don't have an entrance examination unlike Indian colleges or the level of examination is very easy to clear in comparison to the NEET-UG examination e.g., many students traveling to Ukraine, Russia or China score less than 20% in the NEET-UG exam. The cut-off for India, even in private colleges, is around 60%.

Read More: [National Entrance cum Eligibility Test \(NEET\) – Issues and Significance- Explained, pointwise](#)

**Global Exposure:** The exposure and exchange programs of European countries are better than India. It allows students to study diverse health systems at minimum cost.

**Flexibility:** Universities in Ukraine follow the European Credit Transfer System. It allows students to change institutions in Europe during their course.

Read More: [Brain drain in the health sector – Explained, Pointwise](#)

What are the other shortcomings in Medical Education in India?

**Lack of seats:** Ukraine has one medical college for every ~1.7 lakh people compared to 25.7 lakh people in India. There is intense competition in India and many aspirants are unable to pursue their dream careers. Further there is a dearth of affordable government colleges.

**Poor Quality of colleges:** There has been mushrooming of poor quality colleges which lack proper infrastructure — land, laboratories, equipment, and trained faculty at the postgraduate level.

**Poor Teacher Student ratio:** The ratio is not up to the mark in many private colleges in India while a better teacher student ratio is provided in the European colleges.

**Low passing rate of FMGE:** All those who graduate from foreign medical education institutions are required to take a licentiate exam before they can practice medicine or pursue higher medical education in India. The test is called Foreign Medical Graduates Examination (FMGE). It has a very low pass percentage, e.g., in 2020 only 16.48% applicants passed it.

**Lack of research and innovation:** The medical research and innovation needs an added push as there haven't been many ground-breaking research here.

**What are the adverse impacts of these shortcomings?**

**Undermines Right to Health:** High cost of education directly translates into high cost of medical treatment. Many people are unable to afford and access quality healthcare due to higher costs thereby jeopardizing their right to health.

**Poor condition of Rural Healthcare:** India's huge population still continues to be predominantly rural, but most of the trained medical doctors, paramedics and nurses gravitate towards cities. The rationale is better living conditions, pay and infrastructure e.g., according to a research paper published in the National Medical Journal of India, 74% doctors work in urban areas, density of physicians is 13 per 10,000 population in urban areas and only 3 in rural areas.

Very few quality professionals choose primary care, or work for low and mid-level service providers or opt for teaching. All of which could be beneficial for rural healthcare.

**Exclusion of the Marginalized:** The paucity of seats coupled with high fees in private colleges shatters the dream of many poor people to make a career in healthcare.

**Shortage and Quality of Personnel:** The lack of seats in comparison to the population size translates into shortage of doctors. The doctor patient ratio of 1:1655 in India as against WHO norm of 1:1000 clearly shows the deficit of MBBS. Further the quality produced from namesake medical colleges is often below the required standards.

**Deteriorating Empathy:** Students who invest INR 50 lakhs- 1crore in education often become greedy to recover their investment. They lack the desired trait of empathy to serve the poor and mainly focus on monetary rewards.

**Coaching Culture:** The poor quality of teachers induces students to take support of coaching institutes. This puts an additional monetary burden on them and erodes their trust in the Indian Medical Education system.

**Brain Drain:** Considering the low passing rate of mere 16.5%, many prefer to settle abroad and serve for foreign citizens.

**Proliferation of Quacks:** The people who study medicine but are unable to get into a good college or complete their degree often become quacks. A 2016 WHO report on the health workforce in India had stated that 57.3% of those practicing allopathic medicine did not have any medical qualification.

**What steps have been taken by the Government?**

**National Medical Commission (NMC):** The National Medical Commission has replaced the Medical Council of India with the purpose of reforming the medical education in India. The Commission has a goal of '*curbing outlets of malpractice and boosting visibility, accountability and quality in the governance of medical education*'. The Commission intends to **improve the number of medical seats available and lower the cost of medical education** to encourage more students to pursue careers in healthcare.

Restructuring medical licensing systems, ranking medical colleges, and standardizing entry requirements at medical schools across the country are all essential reforms under the NMC.

To promote the NMC objective, four mutually independent and autonomous committees have been established: **(a)** The Undergraduate Medical Education Board; **(b)** The Postgraduate Medical

Education Board; **(c)** The Medical Assessment and Rating Board; **(d)** The Ethics and Medical Registration Board.

**Competency-based medical education (CBME):** The Medical Council of India (MCI) launched the globally recognized CBME for MBBS students in 2019. The CBME curriculum seeks to step away from a content-based syllabus and more towards one that is more practical and aligned with the country's increasing health demands.

**Pradhan Mantri Swasthya Suraksha Yojana (PMSSY):** 22 new All India Institutes of Medical Sciences (AIIMS) were developed under this initiative, and MBBS classes have already commenced at 18 of the new AIIMS.

**The National Exit Test:** By 2023, the National Exit Test (NEXT) will be the substitute for the National Eligibility cum Entrance Test (NEET) and would be necessary for all MBBS grads and international medical grads. NEXT aims to make the medical education system more transparent, accountable, and consistent.

### What further steps are desirable?

**First**, the **private sector should be encouraged**, along with cooperation from States, to set up more medical colleges and hospitals locally. This would ensure that aspirants remain in India.

**Second**, the **Government should increase the healthcare spending** to 2.5% of the GDP as envisaged by Economic Survey 2020-21. It is currently a ~1- 1.15% of the GDP. The Government needs to make health care the centrepiece of its economic rebuilding.

**Third**, the Government should **ease procedures for establishing medical colleges and provide incentives** for a health-care ecosystem to develop in rural areas.

**Fourth**, the **curriculum should be updated** as per changing times. It should have more practical training and competency based skill development. The institutions should capitalize on e-learning and facilitate infrastructure to support it.

### Conclusion

The WHO argues that universal health coverage is not possible without an adequate volume of educated and trained professionals to deliver quality healthcare services. Hence, the process by which health professionals are educated, trained and supported throughout their careers becomes extremely crucial for a nation. The crisis in Ukraine has brought this issue to the forefront, even the Prime Minister of India has called for expansion of medical education in India in his recent remarks. Hopefully the present crisis can provide the necessary impetus in this regard.

**Source:** [The Hindu](#), [Indian Express](#), [The Times of India](#), [The Times of India](#), [Financial Express](#), [IndiaToday](#).

## [Kurukshestra February Summary] Maternal and Child Health – Explained, pointwise

### Introduction

Despite significant improvement over the last 2 decades, maternal and child health indicators continue to be poor in India. Maternal malnutrition has been linked to an increased risk of maternal morbidity, premature birth, and newborns that are too small for their gestational age.



Because of the negative repercussions for both women and their children, poor maternal nutrition during and throughout pregnancy is a major public health concern. The Government has been running various initiatives for improving maternal and child health but much more needs to be done.

### What is the meaning of Maternal and Child health?

According to the WHO, Maternal health refers to the health of women during pregnancy, childbirth and the postnatal period. It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to ensure a positive and fulfilling experience, in most cases, and reduce maternal morbidity and mortality, in other cases.

The WHO recommends that each stage (pregnancy and pre-natal care, childbirth and postnatal period) should be a positive experience, ensuring women and their babies reach their full potential for health and well-being.

The status of Maternal and Child Health is measured through indicators like Maternal Mortality Rate (MMR), Infant Mortality Rate (IMR), % of institutional deliveries, maternal nutrition like % pregnant women suffering from anaemia, child nutrition indicators like stunting, wasting etc.

### What is the current status of Maternal and Child health?

#### National

**As per National Family Health Survey 5 (NFHS-5) findings**, only 11% of children aged 6 to 23 months had an adequate dietary intake. Overall, 67% children in the age group of 6 to 59 months; 53% of pregnant women (15-49 years) and 57% of adolescents (15-19 years) were anaemic.

While progress has been made, India is still falling short of meeting SDG 2.2 which calls for 'ending all forms of malnutrition for children under the age of five' by 2030. The percentage of stunted, wasted, underweight, and anemic children in India is 36%, 19%, 32%, and 67% respectively.

About one-quarter (23%) of preschool children had folate deficiency.

The % of institutional deliveries has improved significantly from 38.7% in NFHS-3 (2005) to 89% in NFHS-5.

#### Global

Maternal malnutrition is still a global problem, with 24% of mothers in South Asia having a low BMI (Body Mass Index). Furthermore, anemia affects 30% of reproductive-age women and 37% of pregnant women. Women's overweight/obesity is a growing problem in most low-middle-income nations.

According to the WHO, 810 women die every day due to preventable causes related to pregnancy and childbirth. 94% of all maternal deaths occur in low and lower middle-income countries.

### Why is the need to focus on Maternal and Child health?

**Reduction in preventable deaths:** The primary reason is to curtail the magnitude of preventable deaths in the country. A robust maternal health care system would definitely help in reducing the high number of maternal and infant mortality in many states. For instance, Assam witnessed the highest MMR of 215 in the country as per the Sample Registration System (SRS) report (2016-18).

**Improved learning potential:** Access to quality healthcare will improve the learning potential of children and reduce dropout rates at all levels of education. According to the the latest Unified District Information System for Education Plus (UDISE+ 2019-20) report nearly 30% of the students don't transition from secondary to senior secondary level.

**Decreasing Future Expenditure on Healthcare:** Good nutrition and healthcare in early years can help an individual avoid many health problems in future. This reduces future healthcare expenditure for the masses and will enhance the productivity. Further, overall better healthcare levels will reduce the Government's healthcare expenditure.

**Global Commitments:** It will help India fulfill its international commitments as well. Conventions like the UN declaration on Human Rights and targets like UN sustainable development goals place a duty for providing quality healthcare to mothers and children.

### **What are the factors that hinder Maternal and Child health?**

**Poverty:** It reduces the capacity of families to spend on maternal and child health in a judicious way. The situation becomes even more grim considering high out-of-pocket expenditure in India which is around 60%.

**Lack of Institutional Care:** The penetration of hospitals and dedicated child delivery centers is scarce in rural regions. Further, there is an acute shortage of trained gynaecologists in these regions.

**Gender Inequality:** Women in rural areas still lack access to education. Child marriage is still rampant in many parts of India leading to teenage pregnancies that hinder maternal and child health.

**Informal Nature of Economy:** More than 90% of India's economy is informal in nature under which it is very easy to hire and fire an individual. Considering this, women engaged in the informal economy are unable to take a requisite number of child care leaves during and after pregnancy.

**Lack of Food and Nutritional Security:** According to National Nutrition Monitoring Bureau (NNMB) surveys in 10 Indian states, cereals and millets make up the majority of rural diets. However, only approximately half of pregnant women get enough protein and calories.

The NNMB also revealed that most pregnant women's iron, vitamin A and C, and folic acid consumption were less than half of what was advised.

**Son Meta Preference:** Son meta preference refers to the desire of having a male child and is widely prevalent. This subjects women to repeated pregnancies even at a higher age that deteriorates the health of mother and the child.

What steps have been taken by the Government to promote Maternal and Child health?

**POSHAN Abhiyan (National Nutrition Mission):** It aims to enhance maternal nutrition by employing technology, behavior change communication, community engagement, and cross-sectoral convergence.

In 2020, POSHAN Abhiyaan was merged with the existing supplementary nutrition program. Region specific diet charts were introduced for pregnant women by the National Institute of Nutrition.

**Integrated Child Development Services (ICDS):** It includes provisions of nutritious meals, preschool education, primary healthcare, immunization and healthcare to children under 6 years of age and their mothers.

**Table 2: ICDS nutritional norms and budgetary allocation for supplementary nutrition for children (6-72 months old), pregnant women and lactating mothers**

Target Beneficiaries	Calories (kcal)	Protein (g)	Budget per Beneficiary
Children (6-72 months)	500	12-15	Rs. 6
Severely under-nourished children (6-72 months)	800	20-25	Rs. 9
Pregnant and lactating women	600	18-20	Rs. 7

Source: Ministry of Women and Child Development, GOI, 2021

Source: Kurukshetra

Take-Home Rations (THR) comprising micronutrient fortified blended food and/ or energy dense food are supplied under the scheme.

The complementary nature of the cereal-pulse combination for improving the protein quality of the meal is the guiding principle for deciding the combination. In some parts of the country milk powder (skim/whole) and eggs are also provided.

**Pradhan Mantri Matru Vandana Yojana (PMMVY):** It is a maternity cash incentive scheme to provide conditions for safe delivery and nutrition practices. It is implemented in all the districts of the country in accordance with the provision of the National Food Security Act, 2013.

Under the Scheme, Pregnant Women and Lactating Mothers (PW&LM) receive a direct cash benefit transfer of Rs. 5,000 in three installments.

**Janani Suraksha Yojana (JSY):** The National Rural Health Mission's Janani Suraksha Yojana (JSY) aims to reduce maternal and infant mortality by promoting institutional delivery among pregnant women. Under the scheme, eligible pregnant women are entitled to cash assistance of Rs. 1400 (rural) and Rs. 1000 (urban) in low performing states.

The programme also offers performance-based incentives to ASHA (Accredited Social Health Activist) who promote institutional delivery among pregnant women.

**Table 4: Cash Assistance for Institutional Delivery  
(in Rs.)**

Category	Rural Area		Urban Area	
	Mother's package	ASHA's package*	Mother's package	ASHA's package**
LPS	1400	600	1000	200
HPS	700	200	600	200

In both LPS and HPS, BPL/SC/ST women are entitled for cash assistance in accredited private institutions  
 \*ASHA package of Rs. 600 in rural areas include Rs. 300 for ANC component and Rs. 300 for facilitating institutional delivery  
 \*\*ASHA package of Rs. 400 in urban areas include Rs. 200 for ANC component and Rs. 200 for facilitating institutional delivery

Source: National Health Mission <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=841&lid=309>

Source: Kurukshetra

**Janani-Shishu Suraksha Karyakram (JSSK):** It was established with the goal of eliminating out-of-pocket payments for pregnant women and unwell newborns seeking treatment at a public health facility. Every year, more than 1 crore pregnant women in both urban and rural areas use public health facilities.

**Table 5: Entitlements for pregnant women and sick infants under JSSK**

Entitlements for Pregnant Women under JSSK	Entitlements for Sick Infants under JSSK till One Year After Birth
Free Delivery and Caesarean Section	Free treatment
Free Drugs and Consumables	Free Drugs and Consumables
Free Essential Diagnostics (Blood, Urine tests and Ultrasonography, etc.)	Free Essential Diagnostics
Free Provision of Blood	Free Provision of Blood
Free Transport from Home to Health institutions	Free Transport from Home to Health institutions
Free Transport between facilities in case of referral	Free Transport between facilities in case of referral
Exemption from all kinds of User Charges	Exemption from all kinds of User Charges
Free Diet during stay in the health institutions (up to 3 days for normal delivery and 7 days for caesarean section)	

Source: National Health Mission <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=842&lid=308>

Source: Kurukshetra



**Rashtriya Bal Swasthya Karyakram (RBSK):** It is a significant effort aimed at early detection and intervention for children aged newborn to 18 years. It covers the four 'D's': Birth Defects, Deficiencies, Diseases, and Developmental Delays including Disability.

Once the child has been examined and referred, the necessary intervention is provided to the family at no cost.

**Table 1: Timeline summary of policies and programs catering to maternal and child health nutrition**

Year	Policies and Programs Catering to Maternal and Child Health
1975	Integrated Child Health Services Program – includes provisions of nutritious meals, preschool education, primary healthcare, immunisation and healthcare to children under 6 years of age and their mothers.
1993	National Nutrition Policy – includes nutrition specific and sensitive interventions.
2005	National Health Rural Mission – provides accessible, affordable and quality healthcare including nutrition to rural population, especially vulnerable groups.
2007	National Food Security Mission – includes increased production of rice, wheat and pulses through area expansion, productivity enhancement, restoring soil fertility, enhancing farm level economy.
2013	National Urban Health Mission – provides healthcare needs including nutrition to the urban population with a focus on urban –poor.
2013	National Food Security Act – provides subsidised food grains to approximately two thirds of the country's 1.2 billion people.
2017	Pradhan Mantri Matru Vandana Yojana – is a maternity cash incentive scheme to provide conditions for safe delivery and nutrition practices.
2018	POSHAN Abhiyaan – India's flagship program to improve nutrition through inter sectoral convergence – technology and community mobilisation. <i>Anemia Mukht Bharat</i> strategy launched.
2020	POSHAN 2.0 – POSHAN Abhiyaan was merged with existing supplementary nutrition program. Region specific diet charts were introduced for pregnant women by National Institute of Nutrition.

Source: Kurukshetra

### What steps can be taken for further improving the status?

**First**, there is a need to **raise awareness in masses** about the multi-pronged benefits of quality maternal and child health care. For this, a **Jan Andolan component must be inculcated in all key initiatives**.

**Second**, the government should come up with innovative ideas for regions where more action is needed. For instance, the government can take help of a regional sports person to promote exclusive breastfeeding for 6 months.

**Third**, learning from **global examples** can also be taken for improving healthcare. For instance, Mexico's increased taxation on sugar sweetened beverages led to 5.5% drop in consumption in the first year, followed by a 9.7% decline in the second year.

These reductions positively impacted health outcomes (especially obesity and type 2 diabetes) and reduced healthcare expenses in Mexico.

**Fourth**, **Public Accountability tools** like Social Audit, participatory budgeting etc. should be strengthened in states so that effective implementation of healthcare schemes can occur.

**Fifth**, the government should **provide more funds to vulnerable states** like Assam, U.P, Bihar etc.. for improving the overall condition of maternal health.

### Conclusion

Good Health is sine qua non for performing all the other activities in life. India must take robust measures to ensure that all mothers and their children are able to get access to affordable and quality healthcare across the nation. Future discourse must be carried on keeping in mind the popular saying of **'Health is the real wealth'**.

## Green Hydrogen Policy – Explained, pointwise

### Introduction

The Green Hydrogen Policy released by the Ministry of Power envisages building a prominent role for clean fuels in the country's fossil fuel-dominated energy mix. The Policy also shows the scale of the Government's renewable energy vision indicating that the Government wants India to lead the global clean energy transition. Hydrogen and ammonia are considered to be the fuels of the future and promoting the use of green hydrogen and green ammonia is one of the major requirements towards environmentally sustainable energy security of the nation. However, there is still a scope of significant improvements in the Policy measures to create a robust Green Hydrogen production and consumption ecosystem in India.

### What is Green Hydrogen?

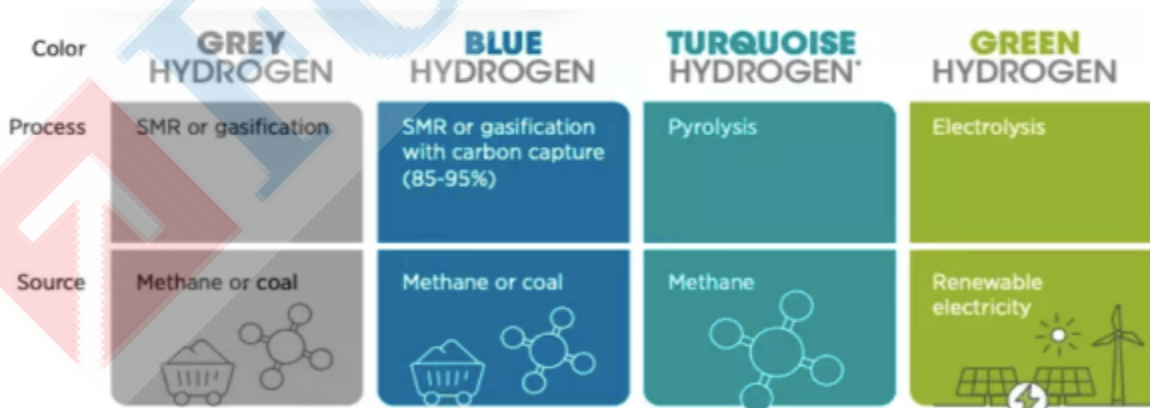
There are various ways to produce hydrogen gas that can be used for commercial purposes. The most common method is **Steam Methane Reforming** which uses methane gas. Sometimes propane, gasoline, or coal are also used. The by-products of this process are carbon dioxide and carbon monoxide i.e., the process has high carbon footprint. The hydrogen produced through this process is called **grey hydrogen**.

Green Hydrogen is the **clean hydrogen generated by using renewable energy such as solar and wind energy** instead of fossil fuels. The electricity produced through solar/wind energy is used to **undertake electrolysis of water** (in electrolyzers) **to produce hydrogen**. The carbon footprint of green hydrogen is negligible compared to other methods of production.

**Read More:** [Green Hydrogen: Potential, Issues and Solutions – Explained, pointwise](#)

The Green Hydrogen Policy defines Green Hydrogen/Ammonia as hydrogen/ammonia '**produced by way of electrolysis of water using renewable energy**' including banked renewable energy and '**hydrogen and ammonia produced from biomass**'.

According to the **certification standards of CertifHy** (established by European Commission and Fuel Cell and Hydrogen Joint Undertaking (FCH JU)) the hydrogen needs to be produced from renewable energy sources and **should have a carbon footprint that is below 36.4 g CO<sub>2</sub>equ/MJ to be classified as Green Hydrogen**.



Note: SMR = steam methane reforming.

\* Turquoise hydrogen is an emerging decarbonisation option.

Source: World Economic Forum

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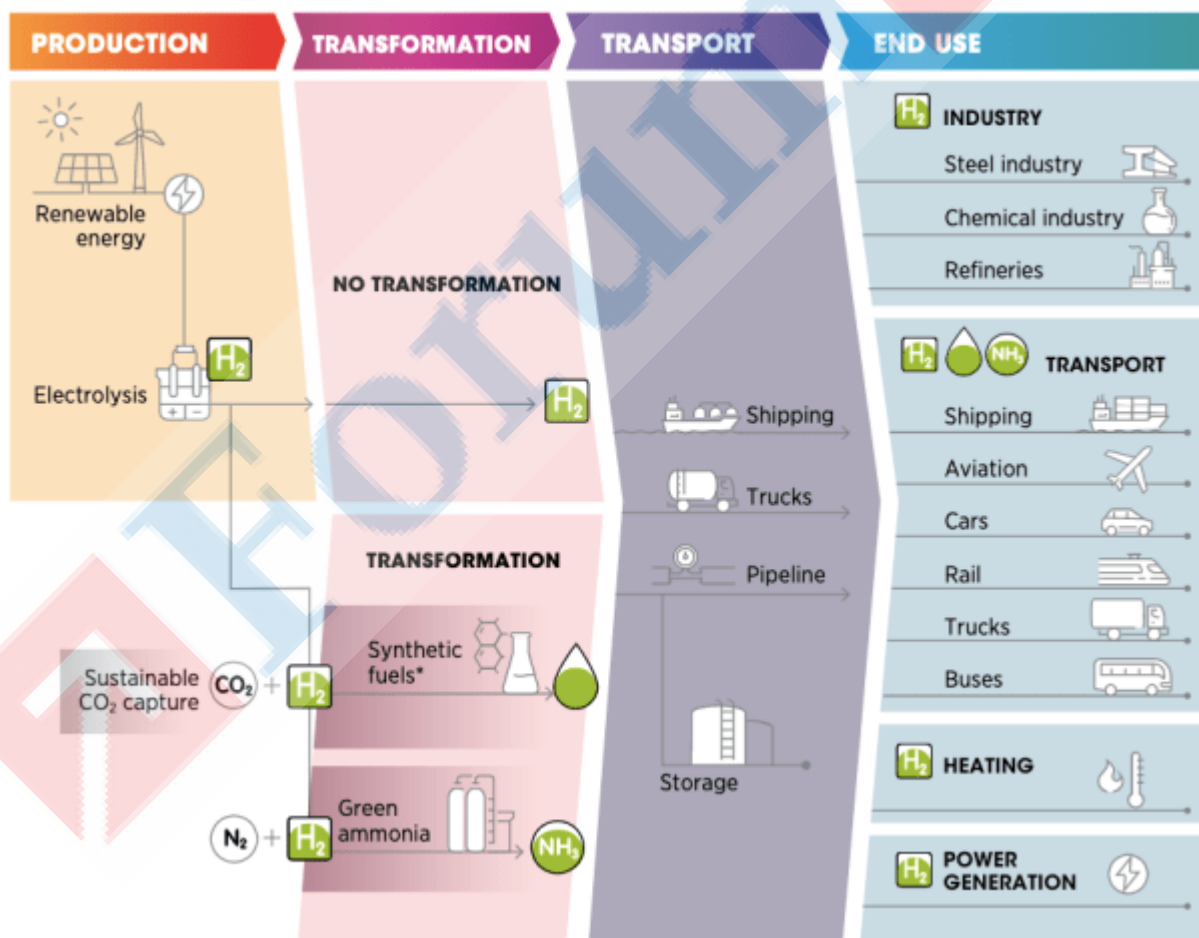
### What are the potential uses of Green Hydrogen?

Hydrogen is used extensively in **chemical industry** e.g., for **manufacturing ammonia and fertilisers**. It is also used extensively in refining, petrochemical industry, steel manufacturing, metallurgy and food processing industries. Using Green Hydrogen to replace the existing hydrogen feedstock produced using carbon intensive methods will contribute to extensive **cut-down of carbon emissions**. Green Hydrogen will play a **crucial role in phase-out of coal**.

Hydrogen can be used in **Fuel cells** which combine hydrogen and oxygen to produce energy. Fuel Cells can also be used in powering Electric Vehicles. Green hydrogen will also **be key for mining vehicles, trains, aircrafts, lorries, buses and even maritime transport**.

In addition, research is underway to promote usage of hydrogen as fuel for domestic purposes e.g., in heating of households.

The International Renewable Energy Agency estimates **hydrogen to cover up to 12% of global energy use by 2050**. Global sales of hydrogen could be worth US\$ 600 billion, and the value chains of green hydrogen could become a US\$ 11.7-trillion investment opportunity by 2050. Governments led by France, Germany, and Japan have allocated at least US\$ 65 billion in support for clean hydrogen.



Source: World Economic Forum

**What is the need for Green Hydrogen Policy?**

The 2<sup>nd</sup> part of IPCC's 6<sup>th</sup> Assessment report has identified **India as vulnerable hotspot** i.e., India is one of the most vulnerable country to climate induced disasters. This necessitates immediate policy action that can cut down carbon emissions and mitigate the impact of climate change.

**Read More:** [The IPCC Sixth Assessment Report \(Part 2\) – Explained, pointwise](#)

India has pledged to achieve NET ZERO by 2070 besides other targets like reducing carbon intensity of the economy and reducing carbon emissions by 1 billion tonnes by 2030. Domestic industrial sector is one of the biggest contributor to India's total emissions, **accounting more than 25% of total emissions**. Hence it is imperative to cut down industrial emissions and the Green Hydrogen Policy is the first step towards improving adoption of clean energy.

**Read More:** [India announces new climate targets at COP26 – Explained, pointwise](#)

**What are the salient features of the Green Hydrogen Policy?**

The Policy has been designed to meet the output target of 5 million tonnes of Green Hydrogen by 2030 under the **National Hydrogen Mission**. The policy provides several incentives for manufacturers and consumers of Green Hydrogen and Green Ammonia. These include: **(a)** Inter-state transmission **charges waived** for 25 years for Green Hydrogen/Ammonia projects commissioned before June 30, 2025; **(b)** Green Hydrogen/Ammonia production plants can be set up in the proposed **Manufacturing zones**; **(c)** Land in Renewable Energy Parks can be allotted for the manufacture of Green Hydrogen/Ammonia; **(d)** To ensure ease of doing business **a single portal for carrying out all the activities including statutory clearances in a time bound manner** (for manufacturing, transportation, storage and distribution of Green Hydrogen/Ammonia) will be set up by the Ministry of New and Renewable Energy; **(e)** **Open access granted** to source renewable energy from anywhere in the country; **(f)** Manufacturers of Green Hydrogen/Ammonia and the renewable energy plant shall be given **connectivity to the grid** on a priority basis; **(g)** The benefit of **Renewable Purchase Obligation (RPO)** will be granted to the hydrogen/ammonia manufacturer; **(h)** **Bunkers to be set up near ports** for storage of green ammonia for export, to be used by the shipping industry.

**What are the potential benefits of the Green Hydrogen Policy?**

**Inter-state transmission charges:** Waiver of charges will **facilitate inter-state transfer of renewable energy** say from a solar power plant in Gujarat or Rajasthan to a chemical plant in Assam. Using this incentive, industries such as fertilizer and petroleum refining which are the key users of hydrogen and ammonia **can cut the production cost of green hydrogen** by sourcing cheaper renewable energy (RE). Some stakeholders say that this will halve the cost of producing Green Hydrogen, while more conservative estimates expect **cost reduction in the range of 15-25%**.

**Banking of Energy:** New policy allows for the banking of unconsumed renewable power with distribution companies for 30 days. This will allow the users to inject non-utilized power into the grid and utilize this banked surplus within 30 days. This will **increase the utilization of electrolyzers bringing down their operating costs**.

**Exports:** The provision allowing bunkers for storage of Green Hydrogen near the ports **will help boost exports**. Exports are essential for India's ambitions of **becoming a global Green Hydrogen hub**.



**Manufacturing Capacity:** Policy measures like **single window clearances**, allocation of land for Green Hydrogen/Ammonia plants in Renewable Energy Parks etc. help create more manufacturing and storage capacities.

**Read More:** [Green hydrogen makes a debut](#)

#### What are some issues with the policy?

**Lack of Demand Side Measures:** The policy is tilted more towards the supply side measures and has very **few measures to promote demand** of Green Hydrogen. Without adequate demand, the investments remain too risky for wide-scale production that could reduce costs. The policy, thus, requires incentives for industries to buy Green Hydrogen, without which private sector participation may be limited.

**Support to new technologies:** The Policy lacks measures to support **technologies to produce and store green hydrogen** like electrolyzers and fuel cells. These technologies can help bring down green hydrogen costs to US\$ 1-1.50/kg. India will need 20-30 GW of electrolyser capacity to meet its hydrogen targets while the global electrolyser capacity is just over 0.3 GW, projected to rise to 16 GW by 2024. At present, Europe and Japan account for the vast majority of patents in hydrogen production and fuel cells, respectively. China produces the cheapest electrolyzers.

*Note: Hydrogen electrolyzers are devices that use electricity to split water into hydrogen gas and oxygen.*

#### What additional reforms are required?

At present, 98% of the hydrogen produced in India is 'grey' (produced from fossil fuels). So, there is a need for additional reforms to fasten India's clean energy transition.

**Enhance Adoption of Green Hydrogen:** At present, there is near 100% cost differential between grey and green hydrogen. If this is narrowed down it will help bring more companies to adopt decarbonization measures. This can be done by introducing special mandates for different industries, till the green hydrogen ecosystem achieves scale. The Government can also **provide support to industries like fertilizers, chemicals and steel through viability-gap funding and grants to help accelerate adoption.**

**Clarity of rules:** The Government should provide more clarity on the applicability of the cross-subsidy and additional cross-subsidy, and on the type and quantum of financial support to GH manufacturers.

**PLI scheme for the sector:** On the lines of the additional ₹19,500 crore for the PLI scheme for manufacturing solar modules, a similar announcement for electrolyzers will be very beneficial for green hydrogen. India has a huge demand for electrolyzers and should focus on meeting this demand domestically.

**Tax incentives:** Reducing GST and customs duties on electrolyser equipment, currently at 18% and 7.5% respectively, till the point that domestic manufacturing capabilities are built, will act as an enabler.

#### Conclusion

The release of Green Hydrogen Policy is indicative of the commitment of the Government towards climate action and clean energy transition. However, much more needs to be done if India wants to gain a foothold in the rapidly growing green hydrogen market, which will not only ensure energy security but also create opportunities for India to become a manufacturing powerhouse

for hydrogen equipment and new technologies. In the absence of a more proactive approach, India may end up depending on imports to meet its hydrogen/clean energy goals, a risk that is avoidable based on recent experiences be it disruptions in the global supply chains due to pandemic or the geo-political developments in Europe.

**Source:** [Business Standard](#), [Livemint](#), [PIB](#), [The New Indian Express](#)

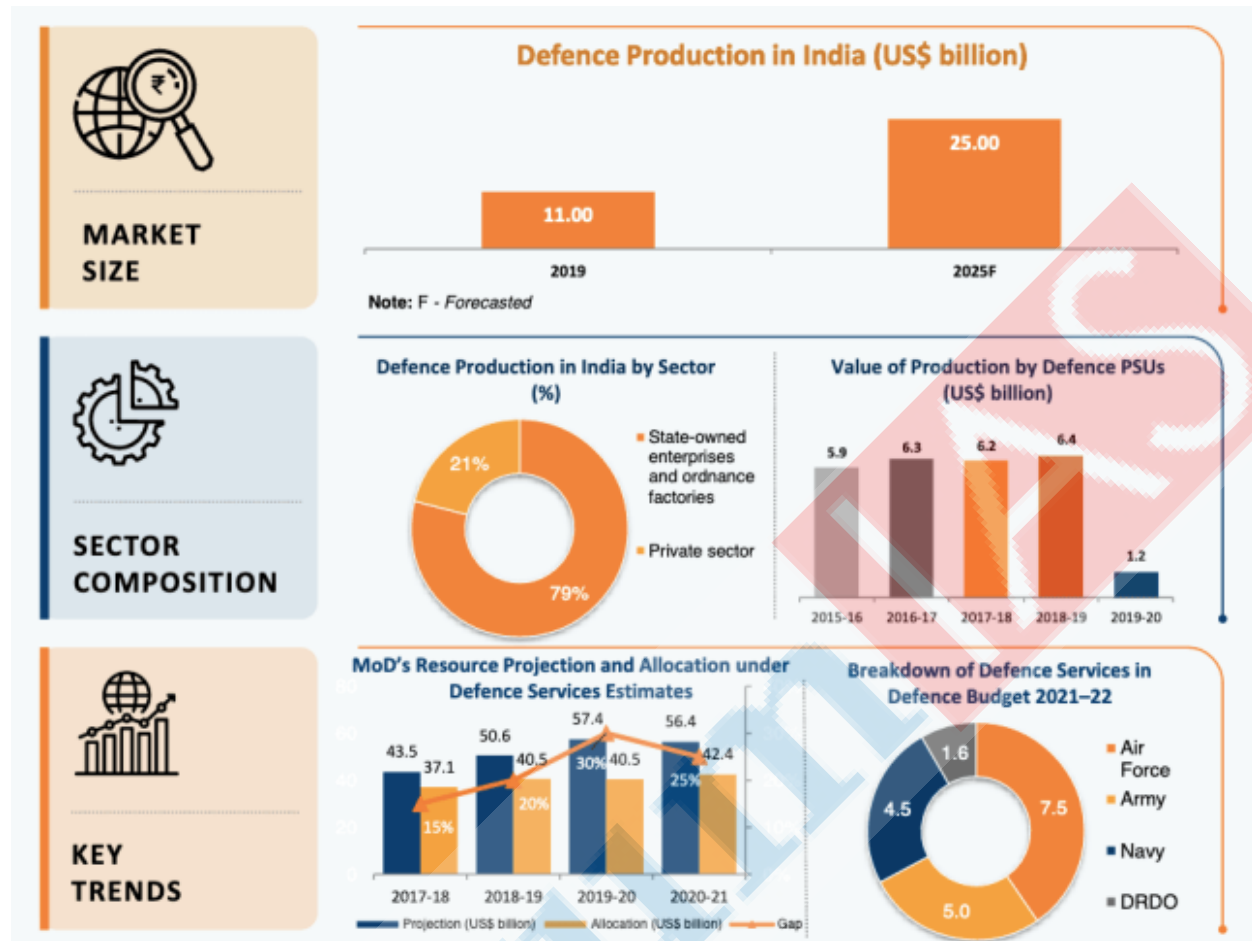
## **India's Defense Manufacturing Sector: Challenges and Opportunities – Explained, pointwise**

### **Introduction**

The Indian defense manufacturing industry is a significant sector for the economy. The industry is likely to accelerate further with the rising concerns of national security. Demand for defense equipment has been growing as India prepares to modernize its forces with rising threat perception of a two-front war. The international pressure on India to give-up its defense ties with Russia in the wake of Russia-Ukraine conflict indicates risks of import dependence for meeting our defense needs. Although India has one of the largest armies in the world, it is also one of the largest importers of defense equipment which calls for developing robust domestic manufacturing capability.

### **What is the current status of the Defense Sector?**

India's defense manufacturing sector has been witnessing a CAGR of 3.9% between 2016 and 2020. The Government of India has set the defense production target at US\$ 25 billion by 2025 (including US\$ 5 billion from exports by 2025).



Source: Indian Defence Manufacturing Industry Analysis Report 2021, IBEF

Defense exports in India were estimated to be at US\$ 1.29 billion in 2019-20. India is providing Made in India defense equipment and services to more than 75 countries.

The value of defense imports stood at US\$ 463 million for FY20. As per recent data of Stockholm International Peace Research Institute (SIPRI), **India is the second largest arms importer** just behind Saudi Arabia.

According to another SIPRI report; **Russia (49%), France (18%) and Israel (13%) were India's top arms suppliers between 2016-20.**

### What is the need to focus on indigenous production?

**National Security:** A country must possess own unique weapon capabilities which are not available with rivals to give a strategic advantage in warfare. Imported technologies which are available to enemy nations reduces the capabilities of defense forces e.g., the BrahMos missile has certain unique features which are not matched by any other missile in the world.

**Fiscal Relief:** It will help in reducing the import bill as India is currently one of the largest importers of defense equipment. This would eventually help in saving a lot of forex outflow and strengthen the Indian rupee.

**Employment Generation:** A robust defence manufacturing sector will generate livelihood opportunities and reduce the burden of unemployment. The Center for Monitoring Indian Economy (CMIE) data shows that the unemployment rate was 7.9% in December 2021. This will also help in structural transition of employment from primary sectors like agriculture to the secondary sector boosting overall labor productivity of the economy.

**Security Concerns:** Defense Equipment imported from abroad are **susceptible to espionage** and sensitive information can be leaked. Domestically manufactured equipment reduces the vulnerability.

**Outdated Technology:** On multiple occasions, the imported equipment and technology are outdated e.g., the aircraft carrier INS *Vikramaditya* inducted into the Indian Navy in 2014, was originally commissioned by the Soviet Navy in 1987 and de-commissioned in 1996 (as *Admiral Gorshkov*). India had bought it in 2004, but was inducted into the Indian Navy 10 years later.

Moreover, India remains dependent on the supplier countries for maintenance, servicing and spare parts of defense equipment which also contribute forex outflow.

**Aatmanirbhar India:** The vision of *Aatmanirbhar* India can't be truly achieved unless robust domestic defense manufacturing capability is developed.

#### What factors are favourable to domestic defense production?

**Technological Prowess:** India is often referred as an Information Technology giant with a huge pool of IT professionals who can develop state of art products for the defense forces. Cyber Security has become a 'weapon of war' and a matter of national security' which warrants advanced technological solutions for the armed forces and India has the talent pool to meet the needs.

**Government Support:** The Government has changed its stance on maintaining a monopoly in defense production. It is now welcoming private sector participation in the sector and showing a preference towards domestic procurements.

**Growing Demand:** The recent Russia-Ukraine crisis is a testimony of the growing demand for defense products in the future for every nation. Further the lingering issues like the Kashmir dispute, Left wing insurgency, Terrorism and an increasingly aggressive neighbour etc. create more demand for defense products.

**India's Friendly image:** India is one of the few countries that enjoys friendly relations with many countries including Russia and the U.S. This would allow the private Indian defense manufacturers to collaborate with and access state-of-the-art technology and allow them to export in many countries.

**Culture of Entrepreneurship:** A wave of new startups is flowing across the nation and India is now host to the 3rd highest number of unicorns in the world. This shows the vigor and potential of Indian masses to create new age defense start-ups.

#### What steps have been taken by the Government for the sector?

**Innovations for Defense Excellence (iDEX):** It is an initiative by the Government of India to modernize the nation's Defense industry. It will empower a culture of technology co-creation and co-innovation in the sector and boost innovation among the start-ups and encourage them to be a part of the ecosystem.

**Defense Corridors:** The UP Industrial Defense corridor and Tamil Nadu Defense corridor would evolve as the hub for private industries, subcontractors, skilled manpower and R&D for manufacturing military systems and technologies.

**Budget 2022-23:** It has set aside nearly 70% of the capital allocation for the domestic industry. 25% of the defense R&D budget has been earmarked for the private sector, including the industry, start-ups and academia.

A Special Purpose Vehicle model (SPV) has also been arranged in the budget. It will “establish the role of the private industry as a partner beyond just a vendor or supplier”.

**Positive Indigenization List:** The 3rd positive indigenisation list of sub-system/assemblies /sub-assemblies /components has been notified by the Department of Defence Production, Ministry of Defense in December 2021.

The list is part of the efforts to achieve self-reliance in defense manufacturing and minimize imports by Defense Public Sector Undertakings (DPSUs). It contains 2,500 imported items which have already been indigenised and 351 imported items which will be indigenised in the next three years.

**SRIJAN portal:** It is a one stop shop online portal that provides access to the vendors to take up items for indigenization.

**FDI relaxation:** In May 2020, the limit was increased to 74% under the automatic route. Currently, 100% FDI is allowed through the Government route.

**Defence Production and Export Promotion Policy, 2020:** The Government formulated the policy to provide impetus to self-reliance in defence manufacturing under the ‘Aatmanirbhar Bharat’ scheme. The Ministry aims to achieve a turnover of Rs. 1 lakh 75 thousand crore (US\$ 25 billion), including an export of Rs. 35 thousand crore (US\$ 5 billion) in the aerospace and defence goods and services by 2025.

**Read More:** [Draft Defence Production and Export Promotion Policy, 2020](#)

**Corporatization of Ordnance Factory Boards:** Seven defense public sector undertakings (PSUs) were created through the restructuring of the Ordnance Factory Board (OFB). This would improve functional autonomy, efficiency, growth potential and innovation in the defense sector.

**Read More:** [Ordnance factories’ moment in history](#)

### What are the challenges faced by the Sector?

**Procedural Requirements and Red Tapism:** Despite constantly promoting ease of doing business in India; the time requirement and number of clearances required to start a defense manufacturing unit is below the global standards.

**Lack of Technology Transfer:** All the defense goods imported don’t involve an element of technology transfer. This sustains reliance on imported goods and impedes domestic manufacturing.

**Improper Quality:** The goods produced by some manufacturers fail to meet the international standards as quality is sometimes compromised for cost reduction. This reduces their export potential and jeopardizes the image of Indian goods at global level.



**Poor Implementation:** The budgetary allocation often remains unspent due to delay in disbursement or lesser zeal amongst the bureaucrats. This creates barriers for optimum utilization of the allocated funds for the development of the defense industry.

#### What more should be done?

**First**, the Government should **gradually expand the positive indigenization list** so that greater support is provided to domestic manufacturers.

**Second**, the **proposed SPV in budget 2022-23** should be duly established to enable better private sector participation in defense manufacturing.

**Third**, the success of the Made in India brand necessitates rigorous testing and trials of Indian products as per international standards. For this, **an independent nodal umbrella body** should be created for meeting “the wide-ranging requirements of trial, testing and certification.

**Fourth**, a **monitoring mechanism** under DG-Acquisition should be created to monitor the budget earmarked, specifically for private industry and start-ups. It should have representatives from all the three services.

**Fifth**, the **quality assurance process** should be reformed and made non-intrusive, prevention based and “free from inspector-Raj”.

**Sixth**, **joint projects with a commitment of technology transfer** should be encouraged as done in case of Brahmos Missile with Russia. This would augment independent and indigenous production in future.

#### Conclusion

A strong developed domestic defense manufacturing sector is becoming a strategic necessity in the context of increasing geopolitical risks and an unstable neighbourhood. Moreover it will have added benefits of providing jobs to growing young population and lead the structural transformation of the labor market. The Government must take all necessary steps to support the defense manufacturing sector and realize the dream of an *Atmanirbhar Bharat*.

Source: [Indian Express](#), [Financial Express](#)

### Sanctions and their Effectiveness – Explained, pointwise

#### Introduction

The Russian invasion of Ukraine has been met with myriad sanctions imposed by many western nations. Imposing economic sanctions is often seen as an alternative to military intervention and escalation of conflict. The idea is that sanctions cause economic damage and coerce the target to change its objectionable course of action. The impact of the sanctions is a debatable issue, despite their widespread use. The effectiveness is closely dependent upon a nation’s power and prestige in the International order. In the current scenario, the huge military potential and support of other powers like China are limiting the impact of sanctions on Russia.

#### What is the meaning of Sanctions?

Sanctions are **coercive measures** that can be applied to **diplomatic, economic and cultural relations between states**. Commonly non-military in nature, they are imposed by one state against another (unilateral sanctions) or by an international organization, such as the United

Nations (collective sanctions). Historically, measures have ranged from comprehensive sanctions (wide ranging and broad-based) to more targeted measures like prohibiting trade in particular items, such as arms, essential goods etc. Sanctions are also targeted at particular individuals and groups who pose a threat to peace and security, including political elites, rebel groups, or terrorist organisations.

Economic sanctions are multidimensional. They tend to include **financial sanctions, restrictions on businesses and travel bans** etc. Financial sanctions consist of **targeted asset freezes and restrictions on a wide variety of financial markets and services** e.g., access to international money markets or cross-country financial transactions and settlements for trade.

### **What sanctions have been imposed on Russia?**

The international community has imposed **a mix of economic and diplomatic sanctions**, with countries acting both unilaterally and collectively.

The US and the UK have introduced unilateral sanctions targeting Russia's two largest banks, Sberbank and VTB Bank. They have also frozen the assets and restricted travel of key Russian oligarchs.

**Germany has indicated it is abandoning the Nord Stream 2** Baltic Sea gas pipeline project, designed to double the flow of Russian gas direct to the country.

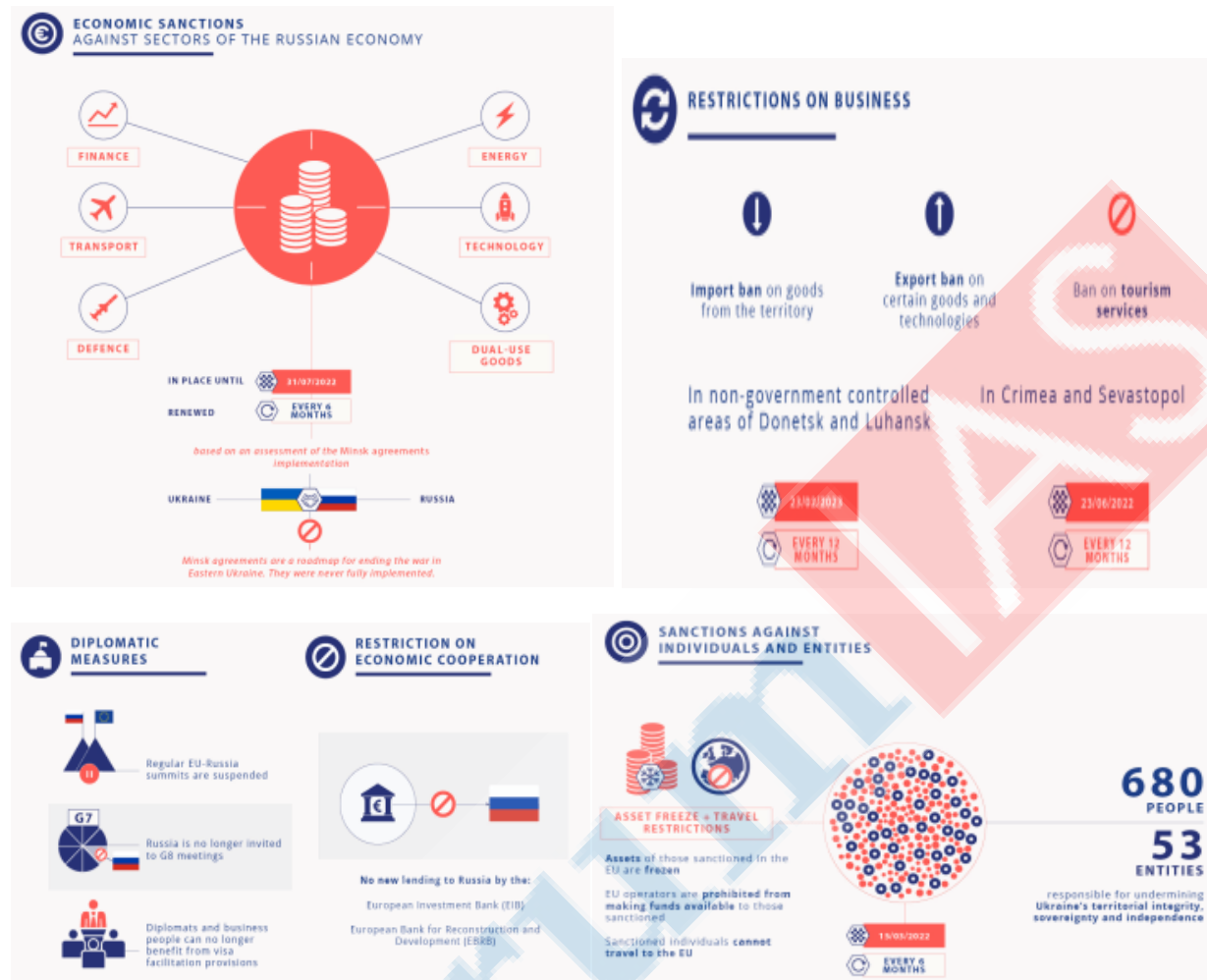
Poland, Czech Republic, Bulgaria and Estonia have closed their airspace for Russian airlines.

**The EU**, on the other hand, has quickly introduced asset freezes and travel bans preventing listed individuals from entering or transiting through EU territory. The list includes President Putin and Foreign Minister Lavrov directly.

Together with the US and the UK, the EU has also agreed to remove select Russian banks from the **SWIFT banking system**. It is the financial messaging infrastructure that links the world's banks).

The Council of Europe in Strasbourg has also applied unprecedented diplomatic sanctions. It has suspended Russia from its rights of representation in the Committee of Ministers and in the Parliamentary Assembly.

These sanctions are in addition to those already in application since the takeover of Crimea in 2014.



Source: Council of the European Union

### What is the rationale behind the imposition of sanctions?

**Inducement for Talks:** The primary reason behind sanctions is to induce the target State to alter its stance and start negotiations.

**Encourage Discontent by Masses:** Sanctions create severe hardships for the masses as many are unable to smoothly run their business or may face job losses in the wake of economic downturn. Widespread protests and demonstrations can coerce the State leaders to alter their stance.

**Global Isolation:** The sanctions instil a feeling of isolation from the global community and even friendly countries with the erring state start looking for alternatives. Denial of access to international financial systems severely reduce the ability to undertake trade and commerce exacerbating the isolation.

**Avoiding Direct Military Conflict:** It is a prudent way to get things done and avoid the brutal impact of a full fledged war especially when the target state has a huge military capabilities.



### What are the impacts of sanctions?

**Economic Instability:** The sanctions impair the prevailing exchange and interest rates in a country thereby causing widespread misery among masses. For instance, the brunt of the ongoing economic sanctions has made the Ruble lose 40% of its value and interest rates have risen to 20%.

**Food Crisis:** The food security of the nation gets hindered as prices keep on rising e.g., the U.S. sanctions against Cuba contributed to a decline in the availability of nutritious foods and increased infectious diseases. Similar was the impact in Iraq in the 1990s.

**Disruption in trade and investments:** The country is unable to transact with fellow countries and its exports, imports, investment, future deals etc. all get jeopardized e.g., the recent SWIFT ban on Russia would make it tough to send money overseas or receive money from outside.

**Dwindling of Social Indicators:** It impairs the prevailing social indicators like infant mortality rate, maternal mortality rate etc.. due to severe hardships faced by the masses. For instance, the United Nations sanctions on Iraq doubled infant and under-five mortality rates.

**Impact on non-target States:** The sanctions also create challenges for countries that are dependent on resources supplied by the target state e.g., the freezing of the **Nord Stream 2 pipeline project** will adversely impact European nations. Germany is almost totally reliant on natural gas imports, with Russia meeting more than half of supplies to Germany in 2020.

### How effective would be the present sanctions against Russia?

The West had imposed sanctions on Russia and its predecessor, the Soviet Union, earlier as well. Although they were largely ineffective. Failures include the 1980 American grain embargo when the USSR invaded Afghanistan in 1979 as well as export control and restrictions on technology transfer during the Cold War. The embargo did not discourage the USSR from its Afghan occupation, and the export controls did not significantly affect the Communist states.

Sanctions were also imposed on Russia in 2014 when President Vladimir Putin annexed the Crimea region of Ukraine. At that time, Russia underwent massive currency devaluation and the Central Bank of Russia burned a lot of forex reserves during that time period trying to keep the Rouble afloat. Since 2014, Russia has been able to stabilise the financial system and had nearly US\$ 635 billion in gold and forex reserves as of early February 2022. While possible Western sanctions against Russian banks could lead to a surge in market volatility, Russia is **likely to be able to withstand restrictions due to its abundant reserves.**

Moreover, Russia is likely to cushion the effect of SWIFT ban through the SPFS (System for Transfer of Financial Messages), an equivalent of the SWIFT financial transfer system developed by the Central Bank of Russia. The Russians are reported to be collaborating with the Chinese on a possible venture, a potential challenger to SWIFT.

In addition, the West has not yet put sanctions on Russian exports of oil and gas even after 10 days of invasion. Oil and gas contribute close to 20% of Russia's GDP, provide 40% of budgetary resources and 60 per cent of export revenues.

### What are the reasons behind the ineffectiveness of sanctions?

**Black Markets:** The products can be purchased and sold through the black markets. Experts are speculating that Russia will also leverage the potential of crypto assets to reduce the impact of recent sanctions.

**Lack of unanimity among enforcing Nations:** The impact of sanctions gets reduced when there is no broad unanimity amongst the big powers e.g., Switzerland, though has expressed support to the West, has not frozen any assets owned by Russians in the banks within its jurisdiction.

**National Interest over Economic Security:** Countries consider national security superior to economic setbacks and often don't bow down if their security is at stake e.g., the severe and universal sanctions against the Iraqi occupation of Kuwait in 1990 crippled the Iraqi economy. Although it did not change the mindset of Iraq's dictator Saddam Hussein at all.

**Alternatives to sanctions:** Following the post-Crimea sanctions imposed in 2014, the use of SPFS by Central Bank of Russia which though a not a perfect substitute of SWIFT, but will allow some continuity in international exchange.

**Dominant position of Leaders:** Impact of sanctions gets diminished if the leaders of target states command a dominant position within the country and can't be easily replaced e.g., Putin has been in power over the last 20 years, directly or indirectly. Similar is the situation of Kim Jong-un of North Korea or Saddam Hussein, who survived in Iraq for many years despite sanctions (and had to be removed through military intervention).

**Veto by Permanent Members:** The collective sanctions by the UN Security Council can only be imposed by the consent of all permanent members. Russia used its veto power to prevent imposition of collective UN sanctions in the recent crisis which induced countries to solely restrict to individual sanctions.

### What lies ahead?

**First**, the **magnitude of sanctions** imposed on countries should be so impactful that the target state is coerced to come to the negotiation table e.g., sanctions against Iraq and Iran were more comprehensive than the recent ones on Russia. All foreign assets were frozen in Iraq, and almost all the trade was halted.

**Second**, the **imposition of sanctions should target critical areas** for which the erring state has a large foreign dependency and no ready substitutes available e.g., oil and gas exports in case of Russia.

**Third**, along with sanctions, there should be **perception building and awareness generation** so that the native citizens compel the state leaders to change their stance. Stakeholders like diaspora in foreign nations and domestic and international media can be engaged in this regard.

**Fourth**, if sufficient results are not generated in the current crisis, then collective UN sanctions should be imposed using tools like 'Uniting **for Peace Resolution**'. The resolution is used to resolve the deadlock of the UN Security Council and calls for convening an emergency meeting of the UN General Assembly.

### Conclusion

Sanctions slowdown economic growth and development, widen the poverty gap, restricts access to food and medicines and exacerbates inequalities. They put a severe burden on common masses but achieve the purpose only when the target state is forced to a course-correction. The success of the sanctions in the past has been a mixed bag. The impact of the present sanctions on Russia is yet to be seen, however the initial observations indicate a limited impact so far.

Source: [Indian Express](#)

## Female Labour Force in India – Trends and Challenges – Explained, pointwise

### Introduction

The UN has given the theme ‘**Gender Equality today for a Sustainable Tomorrow**’ for the International Women’s Day 2022 on March 08. The day is celebrated to sensitise masses regarding the immense contribution of females towards our society and their under-utilised potential across the globe. The true capabilities of women have not been duly harnessed by many nations and India is no exception to it. This is indicated by the low participation rate of female labour force in India. This is despite many initiatives taken by the Government like the Maternity Benefit Act, PM Matru Vandana Yojana (PMMVY) etc.

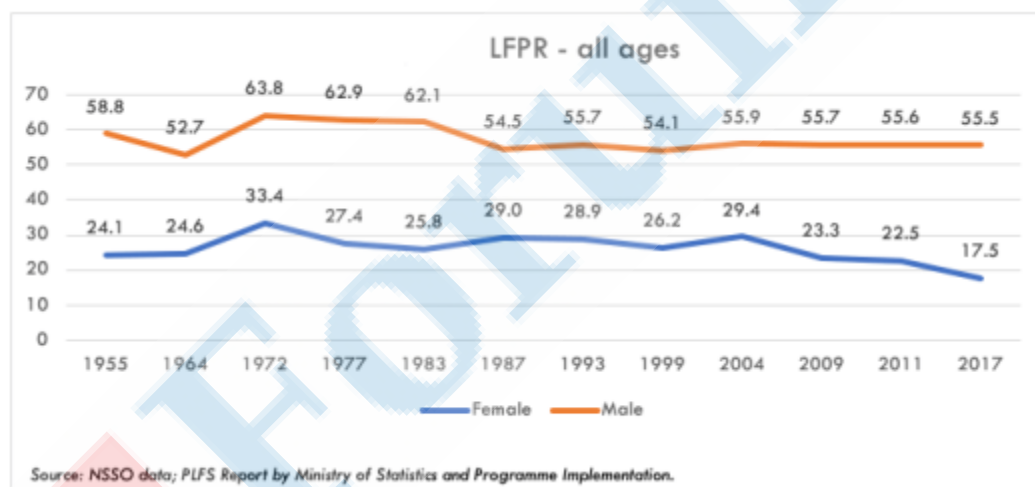
### What is the current status of the female labour force in India?

According to the Periodic Labour Force Survey (PLFS) 2020, only 18.6% of working-age women in India participate in the labour force. This is three times lower than men.

According to the World Bank, Indian women’s participation in the formal economy is among the lowest in the world—only some parts of the Arab world perform worse.

According to a 2018 study by the International Labour Organisation (ILO), more than 95% of India’s working women are informal workers.

The worrying aspect that the female labour force participation has shown a decreasing trend in the recent years.



Source: London School of Economics Blog

### What are the issues faced by the female labour force?

**High Degree of Informalization:** According to the ILO data (2018), about 88% of women employed in industries and 71% in services are informal workers. This creates severe hardships for them like highly precarious jobs/conditions, and lack of social protection. A WHO bulletin observes that ‘**women’s informal work is central to the feminisation of poverty**’.

# Feminization of Poverty A Perspective

## Feminization of Poverty

The Feminization of Poverty is the term used to underscore the **disproportionate socio economic precarity women face relative to men** due to gender stereotypes and norms, and systemic disparities, such as **unpaid domestic labor and gender-based violence**.

## Lack of Opportunities

Women's poverty is directly related to the **absence of economic opportunities and autonomy, lack of access to economic resources, including credit, land ownership and inheritance, lack of access to education and support services and their minimal participation in the decision-making process.**

Beijing Platform for Action, United Nations Fourth World Conference on Women, 1995

## Disproportionate burden on women

"Because of the gender division of labor and responsibilities for household welfare, women **bear a disproportionate burden**, attempting to manage household consumption and production under conditions of increasing scarcity".

Beijing Platform for Action, United Nations Fourth World Conference on Women, 1995

## Absence of Gender Perspective in Policies

Market regulations and orthodox macroeconomic policies further exacerbate this problem by **not incorporating a gender perspective or a human rights approach** into their evaluations and analysis. Thus, market "efficiency" ought to be redefined in order to mean minimization of inequality, and not, maximization of profits

United Nations Development Fund for Women, UNIFEM, 2006

Created by: ForumIAS ©

**Low and Unequal Pay:** The Economic Survey 2018 showed that Indian women typically earn low wages working in highly insecure jobs. Further India had the largest gender gap in median earnings of full-time employees in 2015.

**Glass Ceiling:** The glass ceiling is an invisible barrier that separates women from top management positions. Indians still perceive women as weak, unaggressive, and emotional for higher level management positions. An IIM Ahmedabad study (2022) found that **women who make it to top leadership positions earn 15% less than their male counterparts** on an average. The number of women directors has increased from 4.5% in 2014 to around 16% in 2020 due to regulatory requirements but is still below the desired levels.

**Read More:** [Women execs earn Rs 85 for every Rs 100 earned by men: IIMA study](#)

**Stereotyping of Jobs:** The societal notions about 'gendered occupations' limit the role of women to specific job profiles like nursing, teaching, gynaecologist etc. There are tangible and intangible



barriers to entry of women in multiple professions like heavy engineering, law enforcement, armed forces etc.

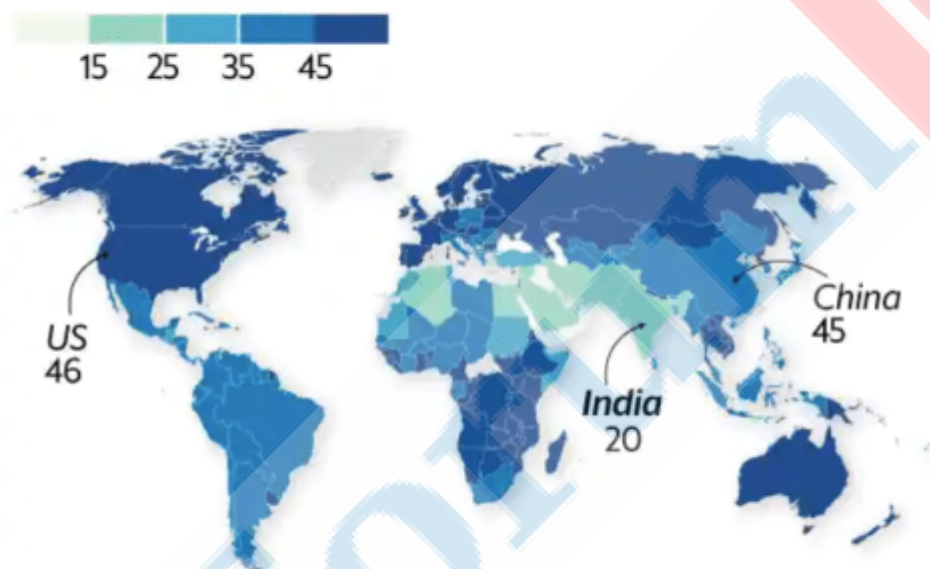
### What are the reasons for low participation of female labour force?

**Financial Constraints:** Many families don't have enough resources to invest prudently on their child. This inhibits expenditure on women's health and education which results in poor participation.

**Cultural practices:** Many women are not allowed to work after marriage. Further child care is considered as a sole responsibility of women which discourages women from joining the labour force.

## Uneven housework load leaves India's labour force unusually skewed on gender

Share of women (%) in each country's labour force



Labour force refers to people aged 15 years or more who supply labour for the production of goods and services in a given period. It includes those currently employed as well as those unemployed but seeking work.

Source: World Bank

**Security Concerns:** The high incidents of violence against women discourages women to work in night like their male counterparts. Further, instances of sexual exploitation at work induces women to opt out of labour force due to family pressures.

**Political Vacuum:** Women constitute around 50% of Indian population however the current Lok Sabha has only 14.4% women. This inhibits a more gender supportive policy formulation for encouraging participation in economic activities. This also reflects lack of gender perspectives in legislations.

**Legally sanctioned gender discrimination:** There are several Union and State Laws that end up discriminating against women e.g., The Factories Act prohibits female employees from cleaning, lubricating, or adjusting machines, and working in operations deemed hazardous. 22

states prohibit the employment of women in up to 80 different processes like working on stone-cutting machines. Many States continue to restrict women from working in several jobs in factories, commercial establishments, and plantations.

Some State laws mandate prohibitions against **women working at night** in factories, commercial establishments, plantations, **and as contract and migrant workers**. Only Gujarat and Kerala allow female migrant workers to work at night in all situations.

## Women at the Margins Migrant Women

### Gendered Phenomenon

Many women migrate as a way to **escape gender-based violence, family control, or forced marriages**. Migration is a graver risk for women e.g., women are **more likely to be victims of human trafficking while migrating**. According to a research, 80% of the trafficking victims are women. Gender and social norms in place of origin, transit and destination play a significant role in shaping migrant's experiences

### Informal and low-paid Jobs

Women migrants tend to concentrate in **informal, low-paid and unregulated industries** (UN Women, 2016)

Despite gender-based obstacles to market labor and gender-wage gaps, **female migrants contributed half of the Global remittances** (UN Department of Social and Economic Affairs, 2017)

### Migrant Women and the Global Care Chain

The **feminization of domestic care** and labor creates a global care chain increasing demand of female care and domestic workers. Out of the 11.5 million international migrant domestic workers, **73.4% are women**. More than 50% of the female migrants in India worked as domestic workers in the households (International Labour Organization, 2015)

### Women make half of the International Migrants

International Migrants by Gender

Year	Female (Millions)	Male (Millions)	Total (Millions)
2000	85	88	173
2005	93	98	191
2010	107	115	222
2015	118	128	246

Women made up half of the 258 million migrants who lived and worked outside the country of their birth. Migrant women are more numerous in every region except Asia and Africa (UN Department of Social and Economic Affairs, 2017)

Created by: ForumIAS

The 'State of Discrimination Index' tracks how states treat female jobseekers on four freedoms. This includes **(a)** Freedom to work at night; **(b)** To work in jobs deemed hazardous; **(c)** To work in jobs deemed arduous, and **(d)** To work in jobs deemed morally inappropriate. As per the Index,

Kerala, Tamil Nadu, and Goa provide the greatest freedom for women to choose work. On the other hand, Odisha, Meghalaya, Chhattisgarh, and West Bengal impose the most restrictions.

**Lack of access to health and childcare:** A study by the ILO in 2016 pointed out that a lack of access to quality child care services forces women workers to leave the labour force. This ceases their earning, and expose them to discriminatory employment practices, and to significant economic and health risks.

### What is the significance of enhancing female labour force participation?

**Tackling poverty:** Female participation will ensure greater disposable income and reduce the poverty levels in society. It will also tackle the phenomenon of feminisation of poverty that is a result of highly informalised work performed by women.

**Improvement in Social Indicators:** Encouraging more women to enter the formal workforce will improve indicators like IMR, MMR etc.. This would happen as women will get access to good health facilities and avoid child marriage.

**Self Confidence and Dignity:** Women who are able to earn for herself are more confident and prefer to live a dignified life. **Financial independence enables women to play a greater role in decision making like family planning.**

**Global Commitments:** The International Labour Organisation charter, UN Declaration on Human Rights etc. place a positive obligation to enhance female participation. Improving FLFPR is related to achievements of **SDG 1** (No Poverty), **SDG 5** (Gender Equality), **SDG 8** (Decent Work and Economic Growth) and **SDG 10** (Reduced inequalities).

**Economy Boost:** McKinsey Global Institute had estimated that by 2025, equal opportunities for women in India could add US\$ 700 billion to the economy. Similarly, the IMF chief has said that gender parity in the workforce can improve India's GDP by 27%.

What steps have been taken by the Government to enhance female labour force participation?

**Maternity Benefit (Amendment) Act, 2017:** The Act more than doubled the duration of paid maternity leave for women employees to 26 weeks. It proposed an option to work from home after this period, on mutual agreement with the employer. It made crèche facilities mandatory for establishments employing 50 or more women.

**Anganwadi centres under the ICDS:** They provide maternal and child nutritional security, a clean and safe environment, and early childhood education. Thus, they facilitate the ability of women to re-enter work post-childbirth.

**National Food Security Act (NFSA), 2013:** Apart from providing affordable food, it entitles pregnant and lactating mothers to a cash transfer of at least INR 6,000. This is done so as to break the compulsion for early returning back to work.

**Stand up India:** The scheme facilitates bank loans for setting up a new enterprise in manufacturing, services, agri-allied activities, or the trading sector by SC/ST/Women entrepreneurs. It provides bank loans between INR 10 lakh and up to 1 crore.

What are the shortcomings in the measures undertaken by the Government?

**Limited coverage of informal sector:** Many schemes are unable to cover the informal sector due to the lack of reliable data. As a result majority women remain devoid of key social, health and maternity benefits.



**Non-Comprehensive nature:** The schemes don't provide adequate coverage e.g., *Anganwadi* Centres do not cater to children under the age of three. Further, the centres function only for a few hours a day, making it inconvenient to send and pick up children during work hours.

**Reduction in Benefits:** PM *Matru Vandana Yojana* (PMMVY) was notified to fulfil the objective of NFSA, 2013. However it limits the benefit to the first birth and has also reduced the amount to INR 5,000 from INR 6,000 under the NFSA, 2013.

**Improper Budgetary Management:** The budgetary allocations are not properly spent and we often see a sufficient degree of un-utilised funds despite the March rush by the departments.

### What corrective steps can be undertaken?

**First**, the **welfare schemes should be made more comprehensive**. Early intake of children in the *Anganwadi* centres can have dual benefits. It will allow mothers time for paid work and converge with the National Education Policy 2020 mandate. NEP acknowledges quality Early Childhood Care and Education for children in the 0-6 age group.

**Second**, the States should **review legislations** like the Factory Act, Shops and Establishment Act etc.. and liberalise the restrictions on women. The best practices from well performing States can be adopted across all States e.g., Andhra Pradesh and Telangana are the only two states that allow women to work in all processes in all establishments.

**Third**, the focus should be on creation of **more Self Help Groups**. They are of immense reliance and drastically enhance women participation as seen in case of ***Kudumbashree* model** of Kerala.

**Fourth**, the Government should come up with **innovative solutions to enhance female retention in industries** e.g, Public crèches can be operated at worksite clusters such as near industrial areas, markets, dense low-income residential areas, and labour nakas.

Crèches closer to the workplace allow for timely breastfeeding and attending to emergencies. This model has been tested successfully by **Self-Employed Women's Association (SEWA) Sangini** in some Indian cities.

### Conclusion

There is a need to take multiple steps to augment the female labour force participation in India in order to realise the numerous social and economic benefits that accrue from greater presence of women in the workforce. Additionally this will help achieve the target of Sustainable Development Goal 5 which focuses on gender equality.

**Source:** [The Hindu](#), [Live Mint](#), [Live Mint](#), [Live Mint](#)

## Prohibition of Liquor: Benefits and Challenges – Explained, pointwise

### Introduction

In November 2021, the Chief Minister of Bihar and some key public servants renewed an oath to never consume liquor and pledged to undertake steps for the implementation of the liquor ban across the state. On that same day, the Director General of Police (DGP) Bihar administered an anti-liquor oath to personnel at the police headquarters in Patna to ensure full implementation of prohibition of liquor. According to various studies, the prohibition of liquor in Bihar has



achieved only partial success in achieving its intended objectives. Ban on alcohol has become an electoral issue in recent times with various political parties and leaders advocating complete prohibition, especially to garner support of women voters. However the chequered success rate of such bans warrants a fundamental rethink of the approach.

This article will analyse the policy of alcohol prohibition, evaluating the benefits and side-effects of a total ban along with recommended remedial measures.

### **What has been the history of prohibition of liquor?**

The term prohibition refers to **legal prevention of the manufacture, storage, transportation, distribution, sale and consumption of alcoholic beverages** with the aim of obtaining total abstinence through legal means. Prohibition and temperance have had an overlapping history in many countries since ancient times like in ancient China, Aztec civilisation and feudal Japanese society.

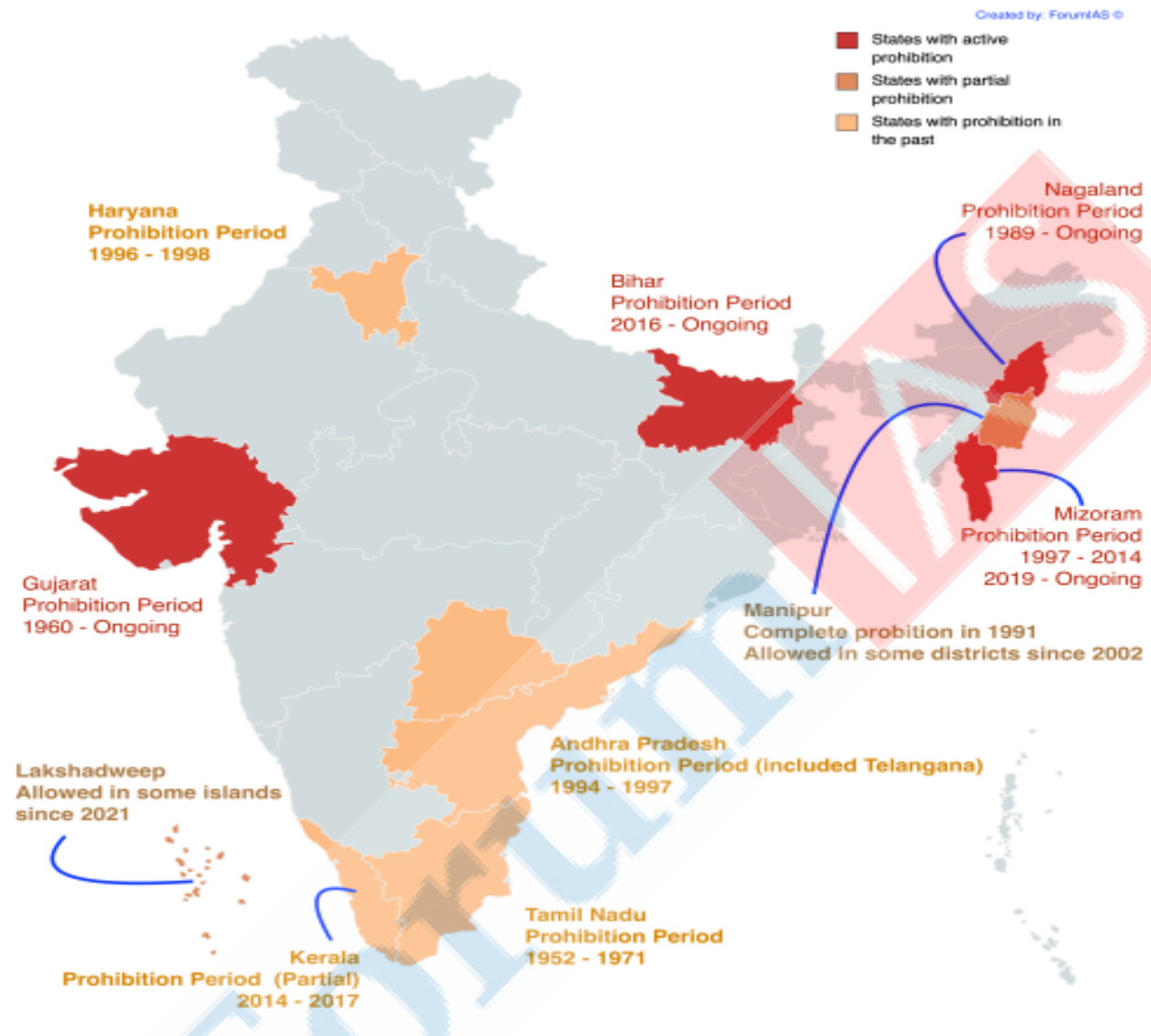
The **anti-liquor movement in the West** is nearly two-centuries old. An abstinence pledge was introduced by churches in the United States as early as 1800. One of the landmarks in the internationalisation of the movement was the organisation of the World Prohibition Conference in London, in 1909. It was instrumental in the formation of the International Prohibition Confederation, embracing the United States, the European countries and a few other industrialised countries of the world. Nationwide prohibition was enforced in the United States in 1920 (via 18th Amendment and National Prohibition Act). However, post 1933 a tilt towards liberalisation was seen **as countries were unable to stop illicit liquor sale** and were losing out on revenue. In 1933, the National Prohibition Act was repealed in the U.S.

### **What is the current status of prohibition in the world?**

Most countries that introduced prohibition have withdrawn or liberalised the measure like the U.S, Japan, China etc. At present there is complete prohibition of liquor in 5 countries in the Middle-East/North Africa which include Afghanistan, Libya, Saudi Arabia, Somalia and Sudan. Some other countries like Brunei Darussalam, Comoro, Iran, Kuwait, Maldives, Mauritania, Pakistan, Palestine, Syria and Yemen – prohibit alcohol for Muslim citizens only. The United Arab Emirates allows for some sale of alcohol except for the region of Sharjah.

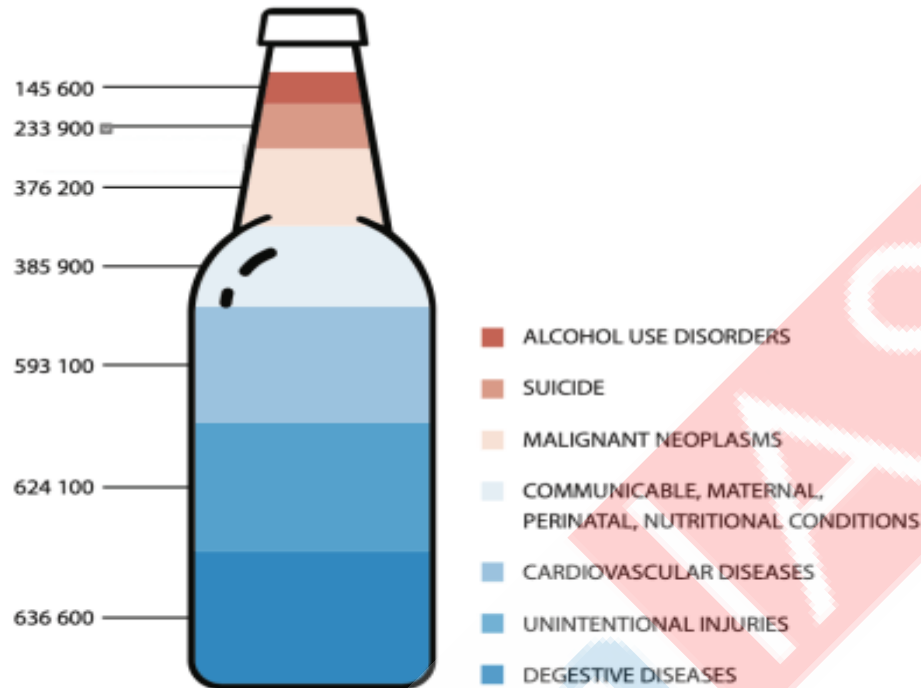
### **What is the current status of prohibition of liquor in India?**

**Entry 51** in the State List makes 'Alcohol for human consumption' a subject matter of States. This provides States the power to make laws and charge duties on alcoholic liquors for human consumption. At present, ban exists in the States of **Gujarat, Bihar, Nagaland and Mizoram**; while partial bans are existent in Lakshadweep and Manipur. Some States like Haryana, Tamil Nadu, Kerala had tried to implement prohibition of liquor but abolished it due to ineffectiveness.



### What is the rationale behind prohibition of liquor?

**Health Benefits:** Drinking liquor places an adverse impact on human health. It diminishes the utility and functioning of the vital organs of the body, especially liver and kidney. According to the WHO, the harmful use of alcohol is a causal factor in more than 200 disease and injury conditions and globally 3 million death occur every year due to harmful use of alcohol (5.3% of all deaths).

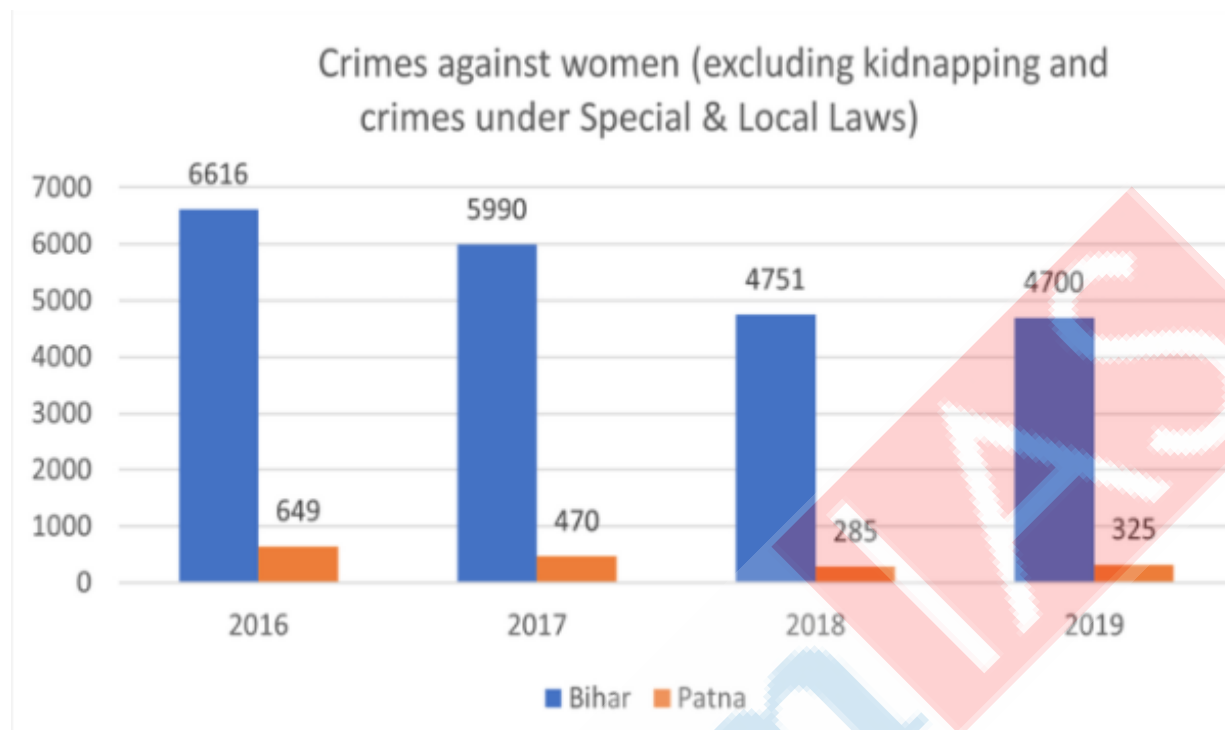


### 3 MILLION DEATHS CAUSED BY ALCOHOL

Source: WHO Global Status Report on Alcohol and Health, 2018

**Constitutional Obligation: Article 47 of the Constitution** directs the State to take measures to raise the level of nutrition and the standard of living and to improve public health. Further the State shall endeavour to bring about prohibition of the consumption of intoxicating drinks and of drugs which are injurious to health.

**Curb Gender Violence:** Several studies have pointed out direct correlation between consumption of alcohol and gender violence including in the domestic setting. A study in Bihar had found that 40% of ever-married women aged between 15 and 49 reported that they experienced physical, sexual or emotional violence by their husbands during the previous 12 months. Proponents argue that prohibition of liquor has potential to bring down the levels of intimate partner violence. A study conducted in Bihar has supported the argument e.g., there has been 28.9% reduction in crimes against women in Bihar between 2016-2019 (after prohibition)



Source: Sexual Violence Research Initiative

**Reduction in Crime:** A reduction in alcohol consumption is also desired to reduce crime in the society as intoxication impairs an individual's ability to distinguish between right or wrong. A report by the Asian Development Research Institute (ADRI) on prohibition in Bihar noted there was a 66.6% dip in cases of kidnapping for ransom, followed by 28.3% dip in murder cases and 2.3% in dacoity.

**Economic Stress:** Addiction to alcohol creates severe hardships especially for poor families as the male members tend to spend more on alcohol due to their excessive addiction. This in turn reduces the budget for spending on essential items and in many cases pushes the family into borrowings. The **1992 Anti-arrack movement** that took place in Andhra Pradesh is a testimony to this. The money saved due to prohibition of liquor is used more productively e.g., the ADRI study pointed out that 19% of households acquired new assets from the money they earlier splurged on alcohol.

#### **What are the counter arguments given against prohibition of liquor?**

**Right to Choice:** A total ban goes against an individual's right to choice and undermines a person's freedom.

**Economic Loss:** The Indian Made Foreign Liquors (IMFL) industry contributes over INR 1 lakh crore in taxes every year. It supports the livelihood of 35 lakh farming families and provides direct and indirect employment to lakhs of workers employed in the industry. It also supports hundreds of ancillary industries in glass, tin, plastic and paper with a turnover of Rs 6,000-7,000 crore.

Moreover complete prohibition has a negative impact on tourism and hospitality sectors.



**Bootlegging:** Failure of effective implementation gives rise to bootlegging (the illegal production, transport and sale of liquor). Liquor mafias emerge which keeps on supplying the illicit liquor (with no quality checks) to the masses. This defeats the purpose of prohibition of liquor, and gives rise to organized crime as well.

**Health impacts:** Many people lose their lives by consuming poor quality illicit liquor (hooch). News reports indicate that as many as 60 people have died after consuming hooch in Bihar since November 2021.

**Populist measure:** Critics argue that Alcohol prohibition is merely used as a political card, especially to woo women voters. However it doesn't solve their problems as people addicted to alcohol end up consuming hooch and other illegal alcoholic substances whose impact is similar or even worse than legally manufactured alcohol.

**Judicial Burden:** It creates tremendous burden on the courts and enhances the pendency of cases e.g., till February 2020, around 2.14 lakh cases were registered under Bihar Prohibition and Excise Act, 2016.

### **Why have Governments been unable to effectively implement prohibition of liquor?**

**Prevalence of Corruption:** Generally, the local officials form a nexus with the liquor mafia and overlook the underground activities. This police-mafia nexus problem is not limited to India, this had been evident in the US as well during the period of prohibition (1920-33).

**Dynamic Modus Operandi:** The modus operandi of unlawful players keeps on changing from time to time. The places of production, mode of transportation, and code languages keep on changing which are very difficult to detect.

**Support by Neighbouring regions:** The liquor gets smuggled from the neighbouring states e.g., Daman (neighbouring Gujarat) has a per capita consumption of 56 litres per annum against the national average of just 4.3 litres per annum. The data show it plays a key role in meeting the demand of Gujarat.

**Huge Supply of Workforce:** There is a huge supply of unemployed youth who want to make quick money by smuggling illicit liquor. The youth who get caught are quickly replaced. Further bail can be easily obtained due to nexus with officials.

**High Degree of Addiction:** The ban doesn't reduce the demand of alcohol rather intensifies it. People are willing to risk their lives and drink illicit liquor just to satisfy their addiction. In the US, the prohibition indirectly increased the use of drugs and other harmful substances among those who could not get hold of alcohol.

### **What corrective measures can be undertaken?**

The principal reason why many prohibition strategy fail is because they seem to be based on the simplistic assumption that cutting off the supply impacts effective demand for alcohol. So there is a need to adopt alternative strategies.

**First,** Policy makers should focus on framing laws which encourage responsible behaviour and compliance.

**Second,** Drinking age should be made uniform across the country and the rules should be strictly implemented.

**Third,** Tough laws should be made and implemented against drunken behaviour in public, domestic violence under alcohol influence, and drinking and driving.

**Fourth,** Governments should set aside part of revenue earned from alcohol for social education and de-addiction. Community based approach should be adopted to tackle the problem of alcoholism.

### Conclusion

Prohibition of liquor is not the ideal solution to check overuse of alcohol and curbing its harmful impact. On the contrary, multiple studies have shown that prohibition proves to be counter productive. The focus of the policy-makers should be on promoting moderation and temperance.

**Source:** [Mint](#)

## National Land Monetisation Corporation (NLMC): Functions and Benefits – Explained, pointwise

### Introduction

The Union Cabinet has approved the creation of a new company to hold and monetise surplus land and buildings of the government agencies and the Central Public Sector Enterprises (CPSEs). The concept of National Land Monetisation Corporation (NLMC) was earlier announced by the Finance Minister of India in her budget speech of 2021. The new company will have the highest degree of professional standards to do efficient land monetisation. It would help the CPSEs and other government agencies to effectively realise the true value of un-utilised or underutilised land parcels.

### What is Asset Monetisation?

Monetisation refers to the process of turning a non-revenue-generating item into cash. In the context of monetisation of public assets, it means the **process of creating new sources of revenue for the Government and its entities by unlocking the economic value of un-utilised or underutilised public assets**. A public asset can be any property owned by a public body, roads, airports, railways, stations, pipelines, mobile towers, transmission lines, etc. and land that remains un-utilised.

Land Monetisation simply involves monetisation of surplus land and building assets. Monetising of land can either be by way of direct sale or concession or by similar means.

## ASSET MONETIZATION

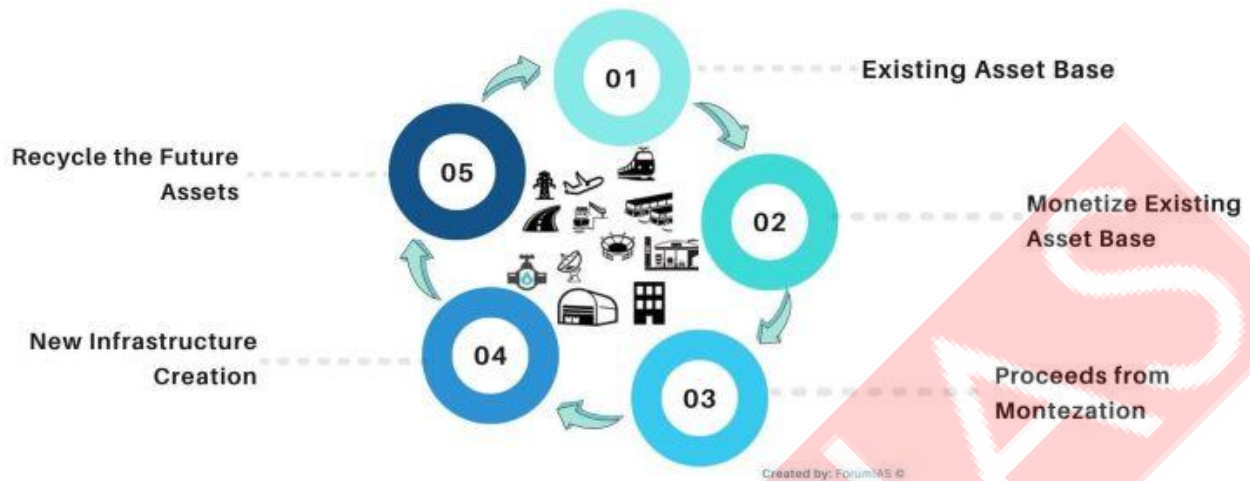


Exhibit: The virtuous cycle of Asset Monetisation

(Adapted from: NITI Aayog National Monetisation Pipeline Guidebook)

### What is the current status of Monetisation in India?

The NITI Aayog has identified two kinds of assets under the NMP, Core and Non-core Assets. Assets which are central to the business objectives of such entity and are used for delivering infrastructure services to the public/users are considered as Core Assets. Infrastructure asset classes such as transport (roads, rail, ports, airports), power generation, transmission networks, pipelines, warehouses etc. are the core assets. The other assets, which generally include land parcels and buildings, can be categorised as non-core assets.



Core and Non-Core Asset Classes

Source: NITI Aayog National Monetisation Pipeline Guidebook

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While the **monetisation of core assets is steered by NITI Aayog**, the initiative for monetisation of **non-core assets** has been hitherto steered by the Department of Investment and Public Asset Management (DIPAM). At present, CPSEs hold considerable surplus, unused and underused non-core assets in the nature of land and buildings. Under the National Monetization Pipeline launched in August 2021, the **public sector enterprises have realised about INR 26,800 crore as of February 2022**; with another INR 15,000 crore to be realised soon by the Ministry of Road Transport and Highways. The target for FY23 is INR 1.62 trillion.

So far, CPSEs have referred **3,400 acres of land and other non-core assets for monetisation**. This includes various CPSEs like MTNL, BSNL, BPCL, B&R, BEML, HMT Ltd, Instrumentation Ltd.

**Read More:** [National Monetisation Pipeline Project – Explained, pointwise](#)

### What is National Land Monetisation Corporation?

The National Land Monetisation Corporation (NLMC) is being set up with the purpose of monetising surplus government-owned land. It is being set-up as a Special Purpose Vehicle (SPV) and will be set up as a wholly-owned Government of India company. It will have an initial authorised share capital of INR 5,000 crore and paid-up share capital of INR 150 crore.

The new company will be set up under the **administrative jurisdiction** of the finance ministry. The Board of Directors of NLMC will **comprise senior Central Government officers and eminent experts** to enable professional operations and management of the company.

The chairman, Non-government directors of the NLMC will be appointed through a merit-based selection process. It will be a lean organisation with **minimal full-time staff**, hired directly from the market on a contract basis.

### What would be the role of the NLMC?

The National Land Monetisation Corporation will undertake monetisation of surplus land and building assets of Central Public Sector Enterprises (CPSEs) and other government agencies.

It is **expected to own, hold, manage and monetise surplus land and building assets of CPSEs** under closure and the surplus non-core land assets of government-owned CPSEs under strategic disinvestment.

It will **also advise and support other government entities** (including CPSEs) in identifying their surplus non-core assets and monetising them in a professional and efficient manner to generate maximum value realisation.

It will **hire professionals from the private sector** just as in the case of similar specialised government companies like the National Investment and Infrastructure Fund (NIIF) and Invest India. This would be done as real estate monetisation requires specialised skills and expertise in areas such as market research, legal due diligence, valuation, master planning, investment banking and land management.

It is expected that NLMC will act as **a repository of best practices in land monetization**.

### Why should the government focus on Land Monetisation?

**Huge potential:** There exists huge portions of land that are lying vacant with government agencies or are being utilised in an improper manner. Various estimates in the public domain peg the extent of land held by various government agencies in **excess of 5 lakh hectares**.



**Additional Revenue:** With monetization of non-core assets, the government would be able to generate substantial revenues by monetising unused and under-used assets.

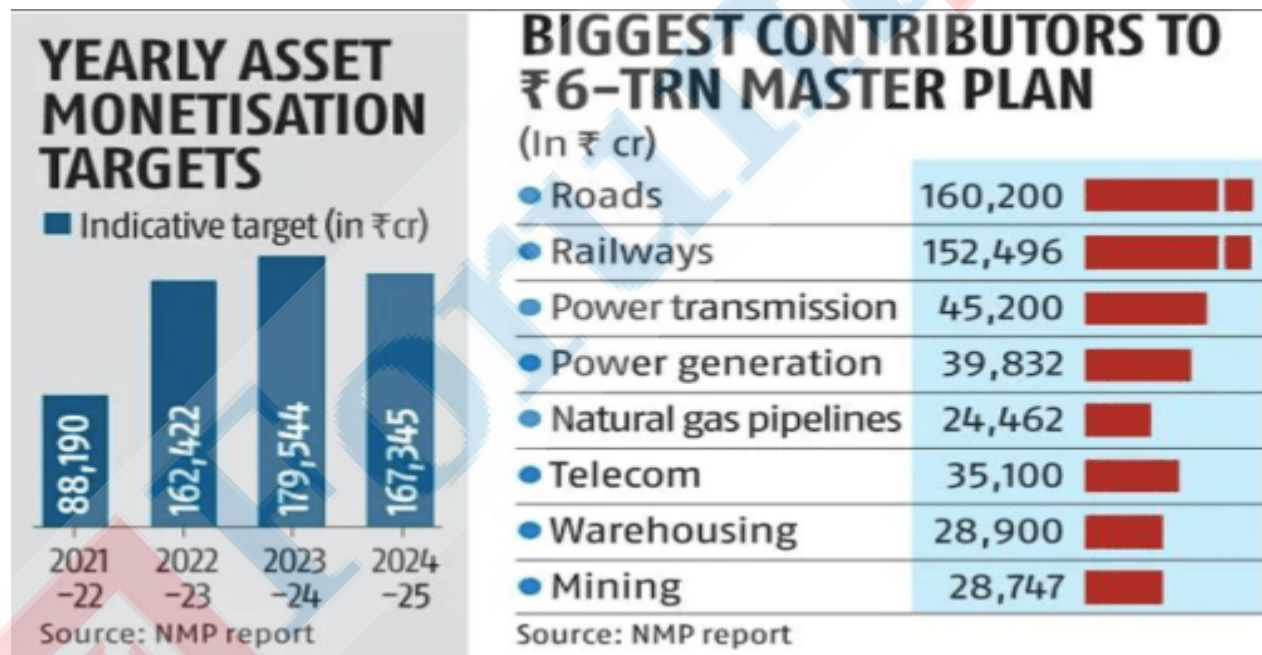
**Realising the true value of Disinvestment:** For CPSEs undergoing strategic disinvestment or closure, monetisation of these surplus land and non-core assets is important to unlock their value.

**Reviving the Economy:** Prudent monetisation will help in reviving the Indian economy that has witnessed a brutal setback after the COVID-19 pandemic. Monetisation will not only generate greater income for the government but will also encourage private investments and job creation.

**Social Development:** With additional revenue in hand, the government would be in a better position to spend on education, health and other social sector areas without raising debt for the same. India is already expecting a Fiscal Deficit of 6.9% in FY2021-22.

### What is the rationale behind its creation of NLMC?

**Meeting Monetisation targets:** The corporation will help in meeting the target of the National Monetisation Pipeline. The pipeline envisages to generate Rs 6 lakh crore through core assets of the central government over a four-year period from 2021-22 to 2024-25. Top five sectors including roads, railways, power, oil and gas pipelines and telecom account for around 83% of the aggregate value.



Source: Business Standard

**Efficiency enhancement:** The Corporation will fast track monetisation of land and non-core assets of public sector entities. Thus enabling delivery of maximum outcome in minimum time.

**Bridge the Skill Gap:** The desired skill set to take on the responsibility of management and monetisation of non-core assets in government is limited. The proposed SPV will have dedicated experts and personnel to fill this skill gap.

**Attain International Parity:** The SPV will carry out the monetisation of the land and other non-core assets in line with international best practices. This would result in attracting greater investment into the projects.

**Flexibility in Personnel Management:** NLMC will have minimal full-time staff, hired directly from the market on a contract basis. Flexibility will be provided to the Board of NLMC to hire, pay and retain experienced professionals from the private sector; thus providing a greater degree of Flexibility in Personnel Management which is traditionally not available in government departments.

### What more should be done?

**First**, there is indeed a critical need to evaluate the land holdings and prioritise those with significant market opportunities to unlock value in the short term.

**Second**, the modalities of transferring the surplus land and buildings to NLMC should be duly finalised and released in public domain.

**Third**, there should be prudent emphasis on monetising land in rural regions as well. This would help in driving greater investments and curb the rural-urban divide.

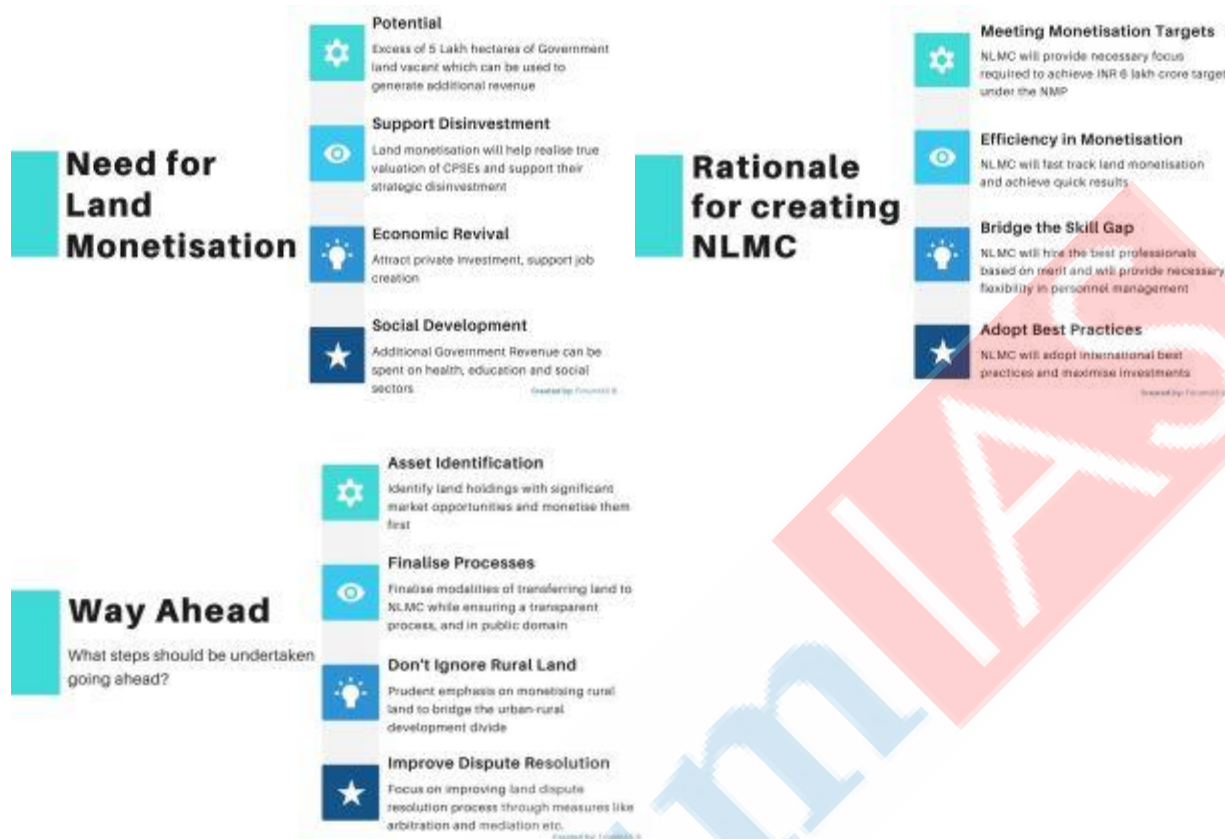
**Fourth**, the government should also focus on improving the land dispute resolution process as many government lands are entangled by litigation. Tools like Arbitration, Mediation etc.. can be leveraged for effective resolution.

### Conclusion

The setting-up of NLMC can be a game changer in the domain of Land Monetisation. It would not only provide the necessary support to PSUs and other government agencies but would also help in boosting economic activities and job creation in the country.

### Summary in Graphics





Source: [The Hindu](#)

## [Yojana March Summary] Harnessing Multiplier Effect – Explained, pointwise

### Introduction

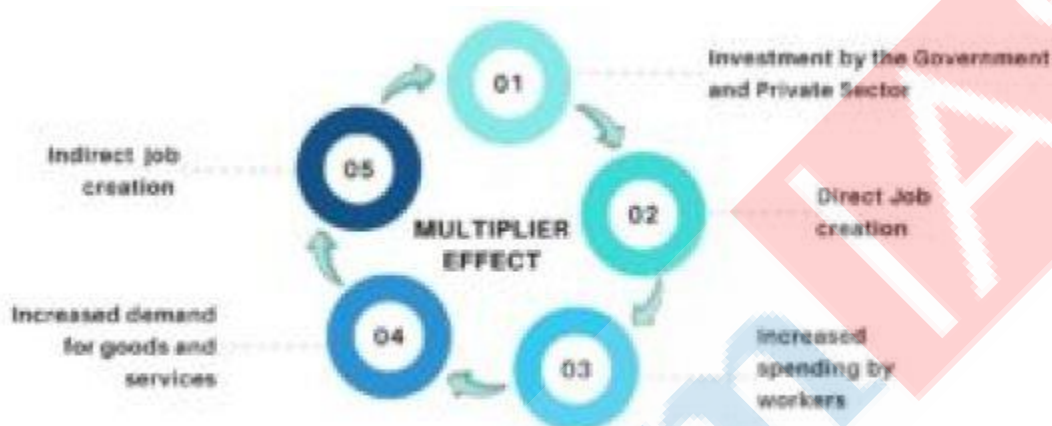
The Indian economy is going through tough times due to the setback caused by the COVID-19 pandemic. The geopolitical risks associated with the ongoing Russia-Ukraine conflict pose further uncertainties. In the present scenario, the focus should be on strengthening India's economy and reducing its external reliance. In the Union Budget 2022-23, the Finance Minister unveiled a transformative approach to invigorate demand and accelerate economic growth. The approach relies on utilizing the multiplier effect by boosting the capital expenditure by both the private and public sector. The Government also increased the outlay under the Scheme for Special Assistance to States for Capital Expenditure (SSASCE) to enhance the capacity of the State governments to undertake capital expenditure.

### What is the multiplier effect of Capital Expenditure?

Capital Expenditure is the long-term expenditure on creation and acquisition of capital assets e.g., the money spent on infrastructure, construction of roads, buildings, machinery, railway lines, airports etc. falls under Capital Expenditure. Capital expenditure leads to **income augmentation, creation of employment opportunities, expands ancillary industries and services, enhances the future productive capacity of the economy, and stimulates demand.**

Public capital expenditure also kicks off a **virtuous cycle by crowding in private investment**. Moreover, it enhances confidence in the economy and attracts foreign investment. All these factors lead to large increase in the income. This **disproportionate rise in income due to capital formation through capital expenditure is called the multiplier effect**.

According to a study undertaken by the economists at the National Institute of Public Finance and Policy; in India, Capital Expenditure has a multiplier effect of 2.45 in the short term and 4.8 in the long term. It means that INR 1 lakh crore spent on Capital expenditure will increase GDP by INR 2.45 lakh crore in short term and 4.8 lakh crore in long term.



### What are the proposals for Capital Expenditure in the Union Budget 2022-23?

In the Union Budget 2022-23, the Finance Minister has proposed a sharp increase of **35.4% in the centre's capital expenditure** outlay from INR 5.54 lakh crore in 2021-22 to INR 7.50 lakh crore in 2022-23. The outlay proposed for 2022-23 is 2.2 times the outlay for capital expenditure in 2019-20.

In addition, the **States will also get grants for the creation of capital assets** through various Centrally Sponsored Schemes. If this amount is added, the Central Government's effective capital expenditure in 2022-23 will jump to INR 10.68 lakh crore. A massive capex support of INR 1 lakh crore to States through the scheme of Special Assistance to States for Capital Investment would also be given under the third phase of the scheme.





## PRIORITISING CAPITAL EXPENDITURE

(UP BY 35.4% FROM RS 5.54 LAKH CR IN 2021-22 TO RS 7.50 LAKH CR IN 2022-23)

- Continue Public Investment to pump prime private investment & demand
- Introduction of Digital Rupee by RBI
- Green Bonds to Mobilise Resources
- Infrastructure Status for Data Centres & Energy Storage Systems
- Measures to Aid Investment by Venture Capital & Private Equity Investment
- Blended Finance for Sunrise Sectors

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Source: Yojana, PIB

What is the Scheme for Special Assistance to States for Capital Expenditure (SSASCE)?

The Union Government had extended a special Scheme of assistance to the State Governments in respect of capital expenditure during the financial year 2020-21 during the COVID-19 pandemic. The Scheme was called 'Special Assistance to States for Capital Expenditure' and an amount of INR 12,000 crore was set aside for this purpose. Funds were provided in the form of **a fifty-year interest-free loan**. This loan was above the normal borrowing allowed to the States.

The States could use the funds provided under the Scheme both for new and ongoing capital projects. They were also allowed to use the Scheme funds for settling pending bills in ongoing projects.

The Scheme **design was kept simple and the States were given full flexibility** to choose projects. Moreover, the information on proposed projects was obtained in a simple format without insisting on the submission of Detailed Project Reports (DPRs).

The Ministry of Finance also decided to provide an additional 2% borrowing to the states in 2020-21. However, half of the additional borrowing was linked to the States completing reforms in four citizen centric areas. The areas identified for reforms were implementation of the One Nation One-Ration Card System, Ease of Doing Business reforms; Urban Local Body/ Utility reforms; and Power Sector reforms.

Considering Repeated requests of the States, the second version of the scheme was launched in the Financial Year 2021-22 with an outlay of INR 10,000 crore.

The **third version of the scheme** was announced in the Budget 2022-23 with a tenfold increase in budget outlay reaching INR 1 lakh crore.



Source: Yojana, PIB

### What is the rationale behind its launch?

The allocation under the scheme will be **used for PM Gati Shakti-related** and other productive Capital investments of the states. The Gati Shakti Mission brings together 16 Ministries including Railways and Roadways. It aims at integrated planning and coordinated implementation of infrastructure connectivity projects.

In addition, the allocation under the scheme is also **proposed to be used for supplementary funding** for priority segments of the **Pradhan Mantri Gram Sadak Yojana (PMGSY)**, including support for the State's share.

Moreover, the Scheme will also be leveraged to motivate States to undertake reforms in the areas like **digitisation of the economy**, including digital payments and completion of the Optic Fiber Cable network. It will also help in fulfilling reforms related to **town planning schemes, transit-oriented development, building by laws, and transferable development rights**.

#### How has the scheme performed?

In the financial year 2020-21, against a total allocation of INR 12,000 crore; an amount of INR 11,830 crores was released to states.

Similarly in the financial year 2021-22, against the Budget Estimate of INR 10,000 crore; capital projects costing INR 9,115 crore were approved till 3rd February 2022, and a total amount of INR 5,301 crores were released to states. This helped in boosting capital investment and completion of several capital projects.

It also **helped in the completion of many citizen-centric reforms**. While 17 States completed One Nation—One Ration Card reforms, 20 States completed Ease of Doing Business reforms.

Local Body Reforms were completed by 11 States and Power Sector Reforms were partially or fully completed by 17 States. Completion of the reform process by the States was certified by the Ministries concerned.

Twenty-three States carried out reforms in at least one of the four identified areas. Two States, **Kerala and Uttarakhand** completed reforms in all the four identified areas.

#### What are the challenges surrounding capital expenditure?

**High Revenue Expenditure Commitments:** In 1990, revenue expenditure formed 73% of the Government spending, while in 2021, revenue expenditure formed 84% of Government spending. The growing demand for revenue expenditure in budgets is largely responsible for not reaping the higher multiplier effects of capital expenditure.

**Missing Target of Disinvestment:** The government missed the last year's disinvestment target of INR 1.75 lakh crores that resulted in reduced flow of capital receipts to the exchequer. It reduced the money available for incurring capital expenditure.

**Global Uncertainties:** The intensification of Russia-Ukraine crisis and the subsequent western sanctions would curtail flow of cheap inputs and resources from Russia. This will increase cost of production and the need of more capital expenditure in comparison to previous levels. In addition, rise in the price of commodities especially oil will increase import bill putting burden on government's finances.

**Pandemic Pressure:** The government is running many schemes to support the poor and marginalized from the after-effects of Pandemic. This has put a significant stress on its capital spending.

**Macroeconomic Stress:** The inflation levels in the country are quite high and are expected to increase if the Russia- Ukraine crisis is not solved immediately. Further the fiscal deficit would be around 6.9% in 2021-22, indicating a higher interest to be paid in future thereby reducing the amount available for future capital expenditure.

What more should be done?

**First**, the states should adopt **good practices from each other for achieving efficient outcomes** e.g., Kerala and Uttarakhand have completed reforms in all four identified areas of the SSASCE and their experience can be implemented across states.

**Second**, the states should **curtail leakages in their spending** using innovative tools like JAM trinity and rationalize their revenue expenditure. They should keep in mind that revenue expenditure has a multiplier effect of 0.90-0.99 which is way less than capital expenditure.

**Third**, the government should do a **cautious evaluation of the ask price for the PSUs** up for disinvestment. Highly skilled professional and investment bankers should be consulted before finalizing the sale price. This would increase the probability of sale and help in meeting the disinvestment targets increasing funds available for capital expenditure.

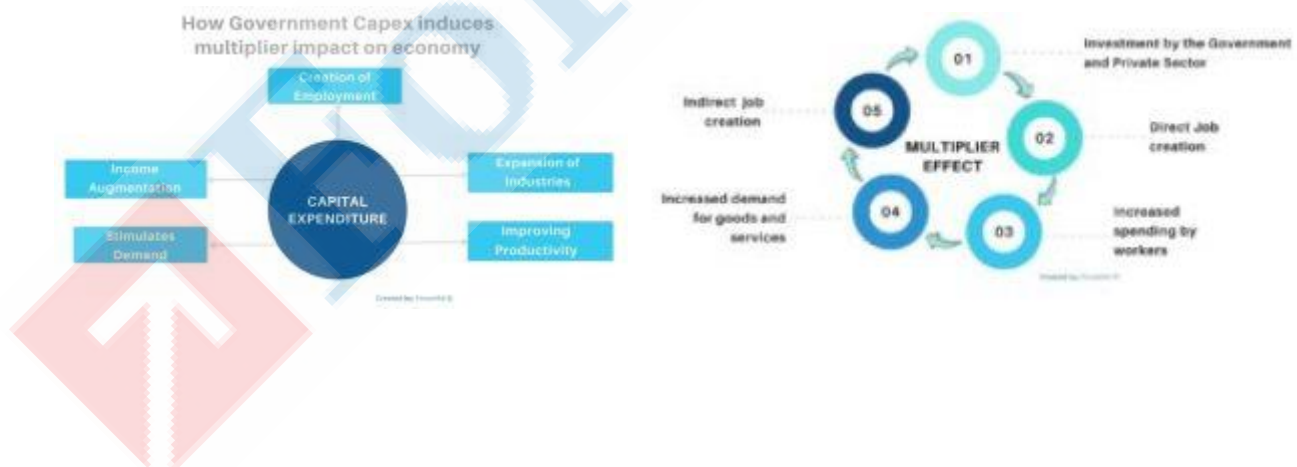
**Fourth**, the government should also **review its direct and indirect tax systems**. The complexities should be removed to ensure greater compliance and prevent tax evasion. Further the list of deductions and exemptions should be reduced for greater tax revenue.

**Fifth**, the government should also **focus on lucrative sources of revenue generation** e.g., 30% tax on profits earned from cryptocurrencies and other virtual digital assets in this year's budget is a welcome step in this regard.

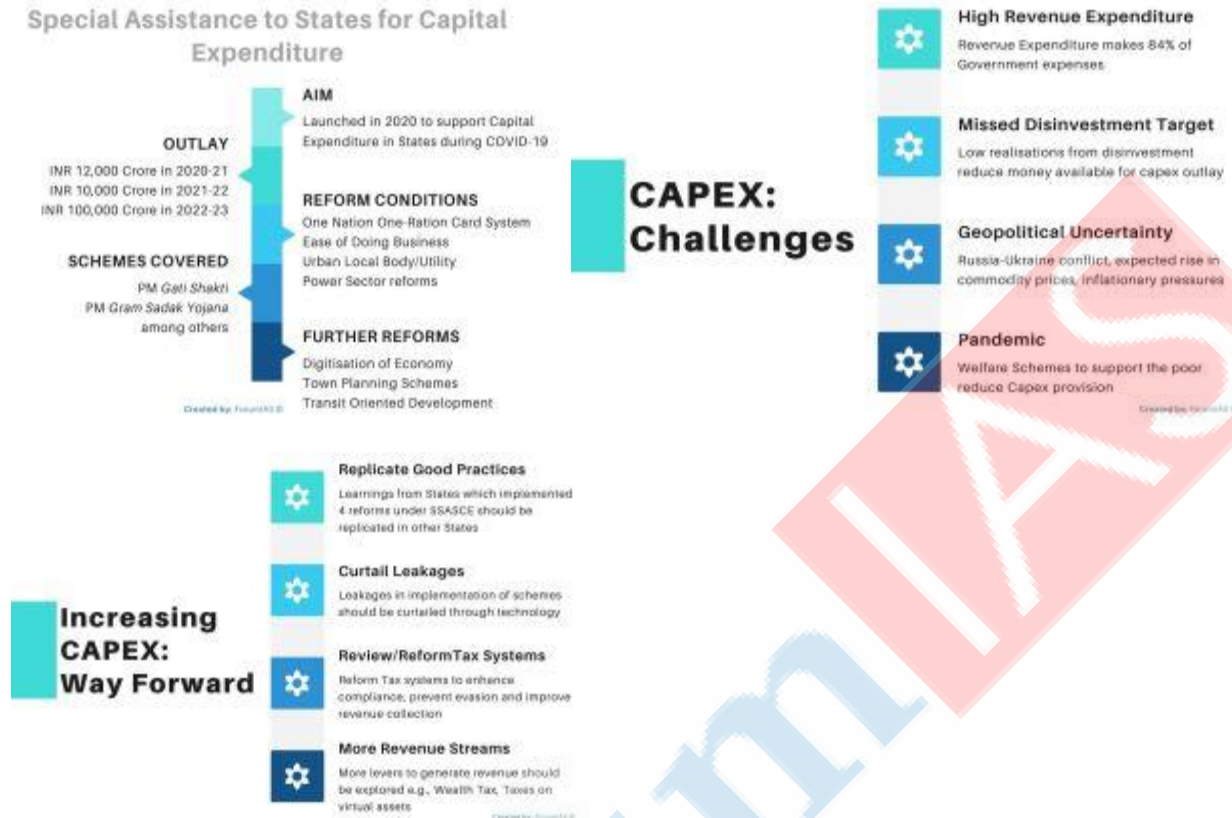
### Conclusion

It is expected that with a massive allocation of INR 1 lakh crore, the third and drastically improved version of the SSASCE 2022-23 would be a game changer. It will not only spur capital investment and economic growth through the multiplier effect, but will also accelerate the movement of States on the reform path outlined by the Finance Minister in her budget speech. However the government should also focus on improving its revenue generation so as to fund its commitments.

### Summary in Graphics







Source: Yojana March 2022

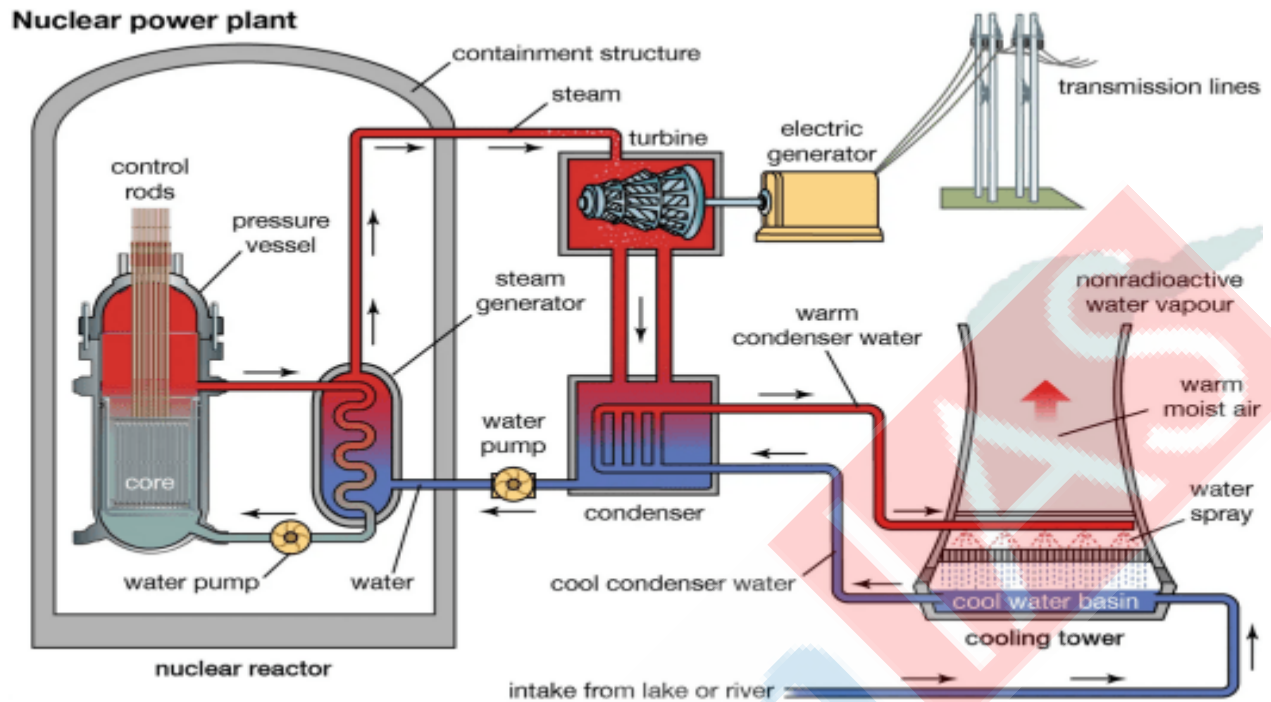
## Nuclear Energy: Status, Advantages and Concerns – Explained, pointwise

### Introduction

Several recent incidents have highlighted the hazards associated with Nuclear Energy. First, there was an attack near the Nuclear Power Plant in Zaporizhzhia in Ukraine (Europe's largest Nuclear plant). In South Korea, a wildfire approached the Hanul Nuclear Power Plant triggering high-level alert and 'all-out efforts' to avoid a nuclear disaster. These incidents could have transformed into Chernobyl (1986) or Fukushima (2011) like nuclear disasters. This has raised concerns regarding the costs associated with Nuclear Energy vis-a-vis the benefits, calling for a reconsideration of Nuclear Energy in the Energy Policy of nations.

### What is Nuclear Energy?

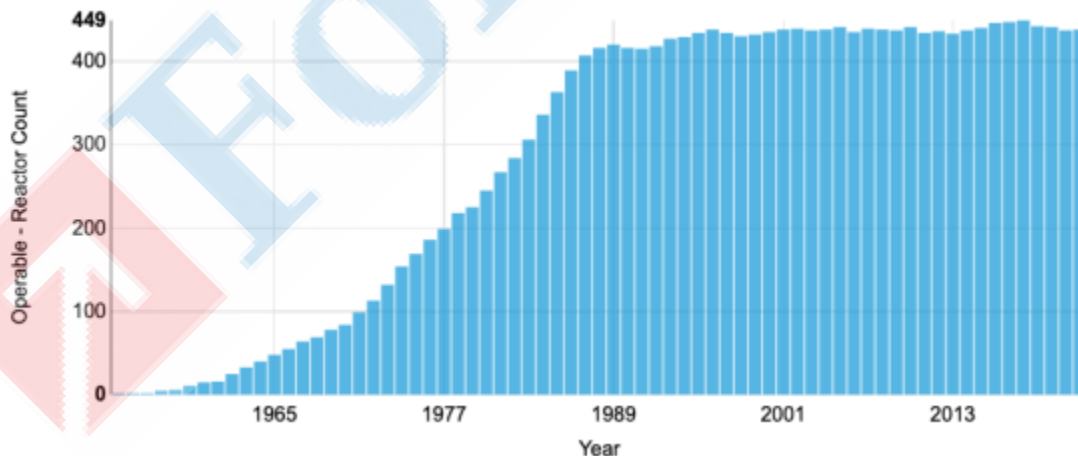
Nuclear power is the use of nuclear reactions to produce electricity. Nuclear power can be obtained from nuclear fission, nuclear decay and nuclear fusion reactions. Presently, the vast majority of electricity from nuclear power is produced by nuclear fission of uranium and plutonium in nuclear power plants. The energy released from the controlled nuclear fission is used to heat water into steam. The steam turns the turbines which generates electricity through attached generators.



Source: World Nuclear Association

### What is current status of Nuclear Energy in the world?

The nuclear energy came into vogue in the 1950s and witnessed exponential rise in the 1960s and 1970s as it was considered a clean alternative to coal and oil. However, the share of nuclear energy started stagnating from 1980s-90s onward. The number of operable nuclear reactors producing energy were 416 in 1990 and but have risen only to 438 in 2021 in 32 countries. Similarly, **in 1996 17.5% of the world's electricity** came from nuclear power plants; by 2020, this figure had **declined to just ~10%**.



Source: World Nuclear Association, IAEA

Several European Countries have high share of nuclear energy in their electricity mix like France (70%), Slovakia (53%), Hungary (48%), Bulgaria (40%) etc. However many countries like Germany

(2022) and Belgium (2025) have announced phase-outs of nuclear energy. In 2008, the U.S. government had projected an expansion of nuclear capacity to 114.9 GW by 2030. However, in 2021, it predicted that capacity would contract to 83.3 GW. Many other countries are expected to follow the path of phasing out nuclear energy in the near future.

### What is the scenario of Nuclear Energy in India?

India had embarked on nuclear energy path right since Independence. The **Atomic Energy Act of 1948** created the Indian Atomic Energy Commission 'to provide for the development and control of atomic energy and purposes connected therewith'. The country's first two reactors at Tarapur, Maharashtra were imported (commissioned 1969). But the 220 MWe Pressurised Heavy Water Reactors (PHWRs) at Kalpakkam, Tamil Nadu was the first completely indigenous nuclear power plant. These reactors were commissioned during 1983-85.

At present, India has **23 operable nuclear reactors and 7 nuclear reactors** under construction. Nuclear power is the **fifth-largest source of electricity** in the country after coal, gas, hydroelectricity and wind power. It comprises **around 2%** of the total energy mix. The Indian Government operates all nuclear plants through the **Nuclear Power Corporation of India**.

### Read More: India's Three Stage Nuclear Power Programme

On December 15, 2021, the Indian government informed Parliament that it plans to build '10 indigenous reactors in fleet mode' and had granted 'in principle approval' for 28 additional reactors. This includes 24 reactors which would be imported from France, the U.S. and Russia.

### Why are the benefits of Nuclear Energy?

**Resource Base:** India has vast thorium reserves which could be exploited using a thermal breeder reactor. A significant amount of thorium reserves are found in the monazite sands of coastal regions of South India.

**Energy Sovereignty:** India's energy mix is dominated by Coal and Oil. Low reserves of oil in India create import dependence. Increasing nuclear energy in the energy mix help India attain energy sovereignty.

**Clean Fuel:** The carbon emissions from a nuclear power plant are much lower than a traditional thermal power plants. Nuclear Energy has the potential to enable India to meet its Climate Goals.

**Economic Benefits:** Oil and gas constitute a major component of India's import bill and play a crucial role in raising the country's fiscal deficit. Focusing on Nuclear energy will reduce demand for imports and the country's current account deficit.

**National Security:** Nuclear Research enabled India to acquire nuclear weapons. Several defense experts have pointed out the importance of 'nuclear deterrence' in the context of Russia-Ukraine conflict. Though India has been an ardent supporter of global disarmament, there can be no denial that the 'deterrent effect' of India's nuclear arsenal has checked the belligerence of India's hostile neighbours.

What steps have been taken by the Government for the advancement of Nuclear Energy?

**Atomic Energy Commission for India:** It is the governing body of the Department of Atomic Energy (DAE), Government of India. The DAE is under the direct charge of the Prime Minister. The functions of the Atomic Energy Commission are: **(a)** Organize research in atomic science in the country; **(b)** Train atomic scientists in the country; **(c)** Promote nuclear research in the

commission's own laboratories in India; **(d)** Undertake prospecting of atomic minerals in India and to extract such minerals for use on an industrial scale.

**Bhabha Atomic Research Center (BARC):** It is India's premier nuclear research facility, headquartered in Trombay, Mumbai, Maharashtra. It is a multidisciplinary research program essential for India's nuclear program.

**Nuclear Power Corporation of India Limited:** It is wholly owned by the Government of India and is responsible for the generation of electricity from nuclear power. NPCIL is administered by the Department of Atomic Energy.

**Civil Nuclear Deals:** India has signed civil nuclear agreements with 14 countries as of 2016. This includes Argentina, Australia, Canada, Czech Republic, France, Japan, Russia, South Korea, the United Kingdom, the United States etc.

### What are the concerns associated with Nuclear Energy?

**Nuclear Disaster:** Nuclear fission reactions occurring in nuclear reactors are highly radioactive. Radiation leaks from reactors can prove fatal for human beings as nuclear radiation can cause genetic defects, mutations and other physiological defects. Genetic defects can cripple future generations as well. Radiation leaks can occur due to technical failure (like Chernobyl, 1986) or natural disaster (like Fukushima, 2011).

The costs associated with a Nuclear disaster are unimaginable. The clean-up costs of Fukushima disaster have been estimated in excess of US\$ 600 billion. It explains the reluctance of the suppliers of nuclear technology to India to accept the liability of a nuclear disaster.

**Cost Overruns:** Nuclear power plants are capital intensive and recent nuclear builds have suffered major cost overruns. An illustrative example is the V.C. Summer nuclear project in South Carolina (U.S.) where costs rose so sharply that the project was abandoned after an expenditure of over US\$ 9 billion.

**Outdated Technology:** Amongst the 24 foreign reactors with 'in principle' approval, six are of the VVER (water-water energy reactor) design that has had multiple operational problems at Kudankulam in Tamil Nadu. Further, Twelve reactors are proposed to be imported from the U.S., including at least six AP1000 reactors — the same design that was abandoned in South Carolina.

**Protests by Locals:** Safety concerns following the Fukushima accident have led to protests against each planned reactor e.g., locals turned against the Mithivirdi nuclear project in Gujarat post the disaster. Moreover, the reluctance of equipment manufacturers/suppliers to accept liability in case of a nuclear disaster, reduces the reliability of their claims regarding robustness of their equipment.

**Availability of Cheap Alternatives:** Solar and Wind are widely emerging as cheap and effective alternatives to Nuclear Energy. They promise to provide electricity between INR 2-4/unit. On the other hand, the DAE had estimated the cost of production of electricity in the proposed Jaitapur and Mithi Virdi Nuclear Power Plants to be INR 9 and INR 12 per unit respectively.

**Inadequate Foreign Research:** Since 2010, an incompatibility between India's civil liability law and international conventions has limited the provision of foreign technology in nuclear research. Further, India is not a member of the Nuclear Supplier group and has not signed the Non-Proliferation treaty.



**What should be the approach going forward?**

**First**, India should continue to enhance the **proportion of solar and wind energy** in the electricity mix. The approach towards expansion of nuclear energy should be cautious, given the concerns.

**Second**, focus should now be placed on **Nuclear Fusion technology** which is safer than nuclear fission and has vast reserves in the form of ocean water.

**Read More:** [Nuclear Fusion Technology: Evolution, Challenges and Future Potential – Explained, pointwise](#)

**Third**, the **safety and management of nuclear facilities** should be duly augmented. There should be constant updating of skills possessed by nuclear operators along with regular surprise audits.

**Fourth**, the **masses should be cautiously and comprehensively sensitized** about the functioning of nuclear power plants using highly intellectual individuals having mass appeal e.g., Dr. APJ Abdul Kalam himself visited Rameshwaram and sensitized the masses before the establishment of the Kudankulam nuclear power plant.

**Conclusion**

Nuclear Energy shouldn't be outrightly rejected considering the strategic implications from the perspective of national security, as well as vast the potential of Nuclear Fusion technology. However the approach towards establishing more nuclear power plants should be cautious. It is advisable that India should continue to place a greater focus on other viable alternatives like solar and wind in the near future.

**Source:** [The Hindu](#)

**Cheetah Reintroduction in India – Explained, pointwise****Introduction**

The Supreme Court had approved the Cheetah Reintroduction in India in January 2020. Since then the wildlife enthusiasts have been ardently waiting to see cheetahs in the wild in India. The COVID-19 pandemic had delayed the process especially due to the emergence of the Omicron variant in South Africa from where some cheetahs were to be translocated. However the situation is now improving and the process has again gained some pace. A delegation from India had visited Namibia in February 2022 to discuss the translocation logistics with the Namibia Government. Namibia would be giving 3 cheetahs for translocation to India and may become the first nation from where cheetahs would be relocated to Kuno wildlife sanctuary in Madhya Pradesh.

**Key details about Cheetahs**

The cheetah, *Acinonyx jubatus*, is one of the oldest of the big cat species. It is also **the world's fastest land mammal** and capable of running at speeds of 80 to 128 km/h. They are considered native to Africa and central Iran.

The cheetah occurs in a variety of habitats such as the Savannah grasslands in the Serengeti (Kenya-Tanzania, Africa), arid mountain ranges in the Sahara and hilly desert terrain in Iran.

The cheetah is threatened by several factors such as **habitat loss, conflict with humans, poaching** and **high susceptibility to diseases**. In 2016, the global cheetah population was estimated at around 7,100 individuals in the wild; it is listed as **Vulnerable on the IUCN Red List**.

Historically ranging throughout most of Sub-Saharan Africa and extending eastward into the Middle East and to central India, the cheetah is now distributed mainly in small, fragmented populations in central Iran and southern, eastern and northwestern Africa.

The **Asiatic cheetah** is classified as a **critically endangered** species by the IUCN Red List, and is believed to **survive only in Iran**. It is smaller and paler than an African cheetah and looks more like a cat with a smaller head and longer neck.

**Read More:** [Cheetah \(Acinonyx jubatus\)](#)

### What has been the history of Cheetahs in India?

India has a long history of cheetahs. The name '**cheetah**' comes from the Sanskrit word **chitraka** that means '**spotted**'.

The earliest historical references of cheetahs are in classical Greek records of India from the geographer Strabo, about 200 BCE.

Coming down to the Mughal Period, the cheetahs were used extensively for hunting. Mughal Emperor Akbar had 1,000 cheetahs in his menagerie. People in Central India, particularly Gwalior State and Jaipur State, used to hunt with cheetahs. The last three cheetahs living in the country were killed in 1947 by the ruler of erstwhile *Koriya* state in present day Chhattisgarh. **The species was officially declared extinct in India in 1952.**

### How did the cheetah become extinct in India?

The animal is **extremely easy to tame, compared to other non-domesticated predators, and was used to hunt prey, a sport called 'coursing'**. The animal was a popular part of many royal courts throughout India and other parts of Asia where it was found.

But **another trait of the cheetah was that it was impossible to breed** in captivity. There was only one recorded successful attempt of breeding a cheetah in captivity until the 20th century, an event recorded by Emperor Jahangir in 1613 in the book *Tuzuk-i-Jahangiri*.

As the Cheetah's number dwindled due to the high number of Cheetahs being taken from the wild, the animal was also then finally brought to extinction with the advent of the widespread hunting brought to India during the time of the British Raj.

While **the government has officially stated** that the animal was driven extinct from **desertification, experts** suggest that the animal had plenty of habitat and prey population to survive if it weren't **hunted** to extinction.

### What is the action plan for cheetah reintroduction in India?

Under the action plan, the Government of India would bring 50 Cheetahs over the next five years to form a **founding population** of the species. Further, former cheetah-range states, i.e. Gujarat, Rajasthan, Chhattisgarh and Madhya Pradesh would be duly analyzed by the experts.

As part of the plan, **India will be translocating around 12-14 cheetahs** from South Africa, Namibia and Botswana to **Kuno Palpur National Park** in Madhya Pradesh. Kuno National Park

has been chosen because of its **suitable habitat and adequate prey base**. KNP is 748 sq. km. in area, devoid of human settlements and is estimated to have a capacity to sustain 21 cheetahs.

Each of these cheetahs would also be fitted with Satellite/GSM-GPS-VHF radio-collars before their release in the wild so as to enable monitoring remotely. This could be the **world's first intercontinental cheetah translocation project**.

Preparing the Kuno National Park			
Grassland Management	Dog Vaccination	Protection	Soft Release
<ul style="list-style-type: none"> <li>- Removal of certain grass species</li> <li>- Selective and Controlled use of cattle for management</li> </ul>	Canine Distemper, Parvovirus and Rabies vaccination in 2 villages inside and other villages on periphery of the Park	Protection enhancement through recruitment of ex-army staff, and training of staff to check poaching	Creation of soft release enclosure with proper fencing

Created By: ForumIAS

#### Why are the expected benefits of cheetah reintroduction?

**Suitable Living conditions:** The cheetah used to live and thrive in the Indian Subcontinent for centuries, hence their reintroduction is a realistic step. Further, the proposed location of Kuno is a woodland and cheetahs have been known to survive in woodland. Cheetahs are quite good at navigating the whistling thorn and acacia scrublands in places like the Maasai Mara game reserve in Kenya (contiguous to Serengeti National Park in Tanzania)

**Sufficient Prey:** The Kuno national park has a good prey base for cheetahs, comprising the four-horned antelope, chinkara, nilgai, wild pig, spotted deer and sambar.

**Ecosystem stability:** In saving cheetahs, one would have to save not only its prey-base comprising certain threatened species, but also other endangered species of the grasslands and open forest ecosystems.

**Less probability of Man-Animal Conflict:** It is also observed that among large carnivores, conflict with human interests is lowest for Cheetahs. They are not a threat to humans and do not easily attack large livestock.

**Economic Relevance:** Reintroduction of a flagship species like Cheetah would attract a significant amount of tourism to the cheetah range states. This would give a boost to other sectors like transportation, hotels etc. and also generate additional jobs.

**What are the challenges associated with cheetah reintroduction?**

**Genetic Differences:** Many experts have expressed concerns over reintroduction of African Cheetahs instead of Asiatic cheetahs. They believe that Asiatic cheetahs would have been a more suitable choice considering historical survival of species in the region and their ability to quickly acclimatize.

**Disease Transmission to other species:** There are very few diseases unique and specific to predators. However, transmission of these to the endemic tiger population is a cause for concern.

**Inter Species Competition:** The Kuno National Park is already home to around 30 leopards. Tigers from the Ranthambore Tiger Reserve in Rajasthan, 140 km away from Kuno, are also believed to migrate to the park. The proximity of three predators in the same ecosystem may reduce survival rates of cheetahs.

**Man Animal Conflict:** More aggressive predators such as tigers and leopards will compete with the cheetahs in the park. They may drive cheetahs to the outskirts of the park, where it could come into conflict with humans.

**What should be the approach?**

**First, active negotiations** should be done with the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), as its permission is necessary for initiating translocation.

**Second, a detailed analysis** on animals' lineage and condition should be checked in the host country. This would ensure that they are not from an excessively inbred stock and are in the ideal age group, so as to conform to the needs of a founding population.

**Third, the wildlife authorities should be prepared for some attrition arising out of natural interactions** e.g., around 10% cheetahs in Savannah in Africa are killed by lions. A similar ratio may be killed by Tigers in Kuno. The officials must expect some deaths and tolerate the negative and damaging interactions with cheetahs, keeping in mind the long term goal of creating a natural interactive landscape and habitat.

**Fourth, the strategy of cold release** should be duly followed as suggested by experts. Under this, the cheetahs would be kept in an enclosure called a *boma* and prey will be released into this enclosure for cheetahs to catch.

**Conclusion**

A careful analysis of pros and cons shows that cheetah reintroduction is feasible in India considering the species used to exist in the region for centuries. However, the associated concerns should be duly addressed to ensure their long term survivability.

**Summary in Graphics**



## Key Details of Cheetah

Scientific Name: African Cheetah  
 Acinonyx jubatus  
 IUCN: Vulnerable  
 #: ~7000 in Central-East and South-West Africa

Fastest Land Mammal, speed ~130km/h  
 Indian Cheetah  
 IUCN: Critically endangered  
 #: ~40-50 in Iran

Native to Africa and Central Iran  
 Threats  
 Habitat loss, conflict with humans, poaching, susceptibility to diseases

Can live in grasslands, arid desert terrain



Credited by: ForumIAS ©

## Cheetahs in India

Major Aspects of Cheetah's presence and extinction in India

Cheetah derived from Sanskrit word Chitraka meaning spotted

First Reference: By Greek Geographer Strabo in 200BC

Extensively found in Central India.

Reasons for Extinction in India

Easy to hunt, Hunting was practiced extensively by medieval rulers as well as the British.

Very difficult to breed in captivity

Desertification and destruction of habitat

Credited by: ForumIAS ©

## Selection of Kuno National Park

Suitable Habitat (woodland) spread across 748 sq. km.

Adequate prey base consisting of chinkara, four-horned antelope, nilgai, wild pig, spotted deer and sambar deer

Very few human settlements within the Park

Studies estimate the Park has capacity to support 21 cheetahs



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Cheetah Reintroduction: Challenges			
Genetics	Disease Transmission	Inter-species Competition	Man-Animal Conflict
African Cheetahs are being introduced. Asian/Indian Cheetah would have been better because of their historic survival in the region	African Cheetah might transmit new diseases to endemic tiger and leopard population	Introduction of Cheetahs will cause competition for resources with local leopard and tiger population	Competition for resources might drive them to the outskirts of the park, increasing susceptibility of man-animal conflict

Created by: ForumIAS ©

Source: [Down to Earth](#), [PIB](#), [Economic Times](#)

### Maternal Mortality Ratio in India: Status, Challenges and Way Forward – Explained, pointwise

#### Introduction

The Maternal Mortality Ratio (MMR) in India has declined by 10 points as per a special bulletin released by the Registrar General of India. It has declined from 113 in 2016-18 to 103 in 2017-19 (8.8 % decline). This is a laudable achievement considering the relevance of MMR in determining the status of maternal health in the country. The data show that India is on the right path to meet its sustainable development goal with respect to MMR. However there is a need to focus on poor performing states like U.P, Assam, Chhattisgarh and West Bengal etc. and address the impediments that curtail an improvement of MMR.

#### What is the Maternal Mortality Ratio (MMR)?

Maternal mortality refers to **deaths due to complications during pregnancy and childbirth**. The WHO defines Maternal Mortality Ratio as the number of maternal deaths during a given time period per 100,000 live births during the same time period. It depicts the risk of maternal death relative to the number of live births and essentially captures the risk of death in a single pregnancy or a single live birth. The death can be due to any cause related to or aggravated by pregnancy or its management.

Measurement requires information on pregnancy status, timing of death (during pregnancy, childbirth, or within 42 days of termination of pregnancy), and cause of death.

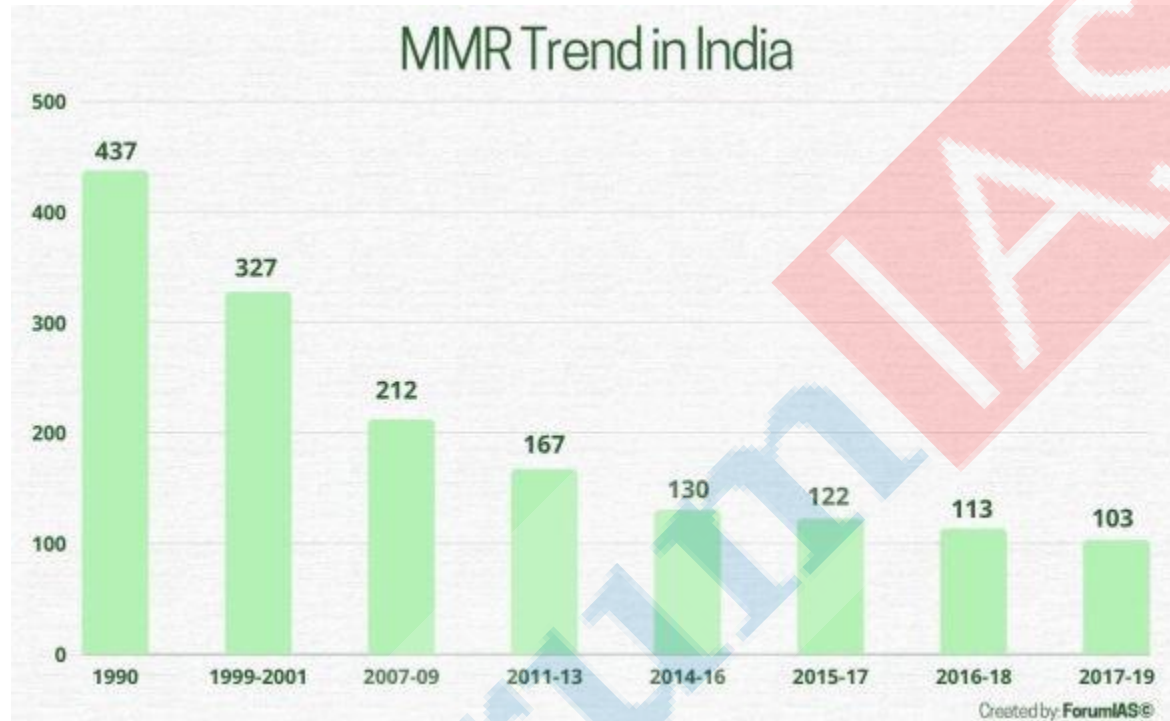
Maternal mortality ratio = (Number of maternal deaths / Number of live births) X 100,000.

The **maternal mortality ratio should not be confused with the maternal mortality rate** (whose denominator is the number of women of reproductive age), which reflects not only the risk of maternal death per pregnancy or birth but also the level of fertility in the population.

The maternal mortality ratio (whose denominator is the number of live births) indicates the risk once a woman becomes pregnant, thus does not take fertility levels in a population into consideration.

### What is the status of MMR in India?

India has witnessed a **progressive reduction in the MMR** from 130 in 2014-2016, 122 in 2015-17, 113 in 2016-18, and to 103 in 2017-19.



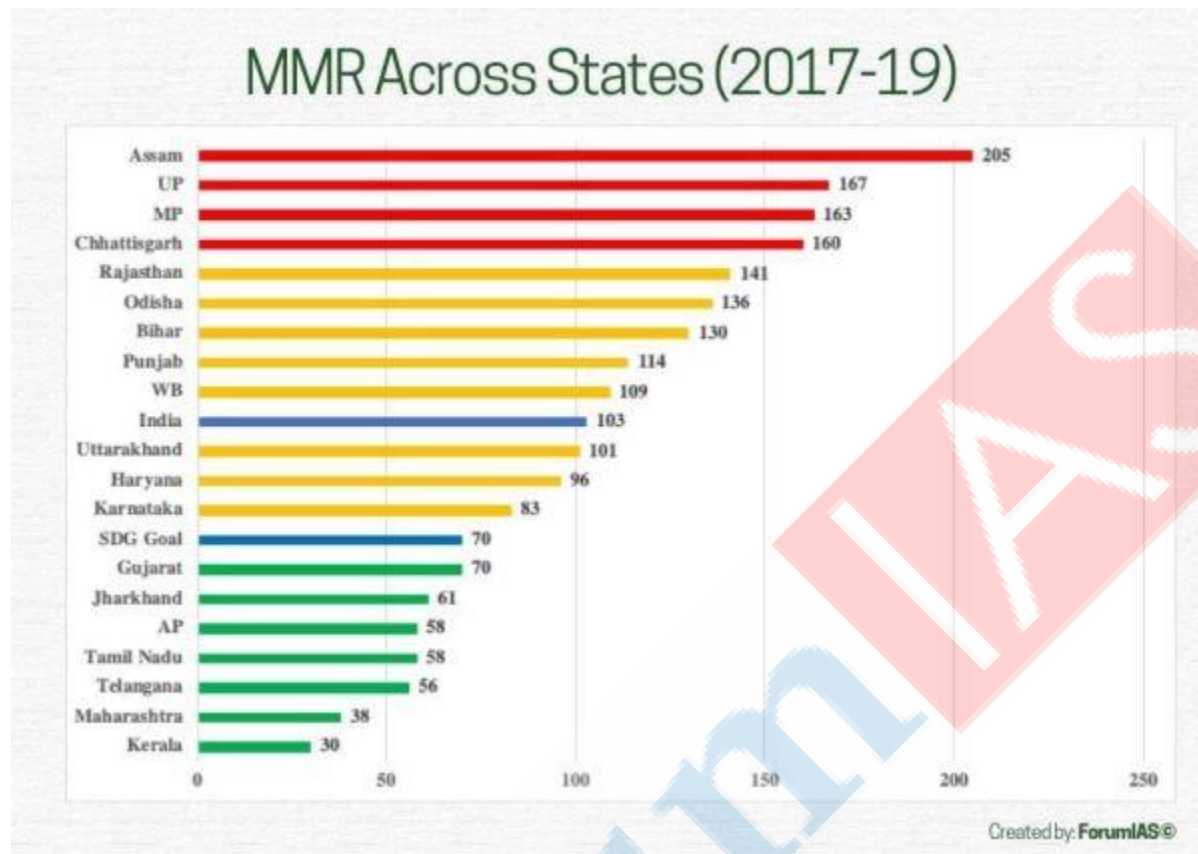
The persistent decline shows that India is on the verge of achieving the National Health Policy (NHP) target of 100/lakh live births. India is also on track to achieve the Sustainable Development Goal (SDG) target of 70/ lakh live births by 2030.

The number of States that have **achieved the SDG target has now risen from five to seven** — Kerala (30), Maharashtra (38), Telangana (56), Tamil Nadu (58), Andhra Pradesh (58), Jharkhand (61), and Gujarat (70).

There are **now nine States that have achieved the MMR target set by the NHP**, which include the above seven and Karnataka (83) and Haryana (96).

Uttarakhand (101), West Bengal (109), Punjab (114), Bihar (130), Odisha (136) and Rajasthan (141) have the MMR in between 100-150.

Chhattisgarh (160), Madhya Pradesh (163), Uttar Pradesh (167) and Assam (205) have the MMR above 150.



#### What is the status of MMR across the globe?

From 2000 to 2017, the global maternal mortality ratio declined by 38% (from 342 deaths to 211 deaths per 100,000 live births) according to UN inter-agency estimates. This translates into an average annual rate of reduction of 2.9%.

While substantive, this is less than half the 6.4% annual rate needed to achieve the Sustainable Development global goal of 70 maternal deaths per 100,000 live births.

Between 2000 and 2017, South Asia achieved the greatest overall percentage reduction in MMR, with a reduction of 59% (from 395 to 163 maternal deaths per 100,000 live births). Sub-Saharan Africa achieved a substantial reduction of 39% of maternal mortality during this period.

#### Why is the need to focus on reducing the MMR?

**Right to Health:** The Supreme Court in various judgements (like *Bandhua Mukti Morcha Case*) has recognized that Right to Health is a fundamental right under **Article 21 of the constitution**. It is necessary to live a meaningful and dignified life. Therefore the State has the responsibility provide requisite health care from womb to tomb.

**Barometer of Healthcare systems:** The MMR reflects the capacity of the health systems to provide effective health care in preventing and addressing the complications occurring during pregnancy and childbirth. According to the United Nations Population Fund (UNFPA) approximately 808 women die every day from preventable causes related to pregnancy and



childbirth. For every woman who dies, an estimated 20 or 30 encounter injuries, infections or disabilities. Most of these deaths and injuries are entirely preventable.

**Demographic Compulsions:** India is a country with more than 1.3 billion people and has the largest working age population in the world. This young workforce falls in reproductive age and requires good quality maternal care.

**Global Commitments:** India is a signatory to various international commitments like UDHR, UN SDGs etc. which specifically calls for providing quality healthcare to all people including mothers e.g., SDG 3.1 aims to reduce maternal mortality to less than 70 deaths per 100,000 live births.

Read More: [\[Kurukshehra February Summary\] Maternal and Child Health – Explained, pointwise](#)

#### **What initiatives have been taken by the government to reduce MMR?**

**LaQshya (Labour room Quality improvement Initiative):** The initiative aims at improving the quality of care in the labour room and maternity Operation Theatre (OT) in public health facilities. Under the initiative, a multi-pronged strategy has been adopted which includes: **(a)** Improving infrastructure up-gradation; **(b)** Ensuring availability of essential equipment; **(c)** Providing adequate human resources; **(d)** Capacity building of health care workers; **(e)** Improving quality processes in the labour room.

**Pradhan Mantri Matru Vandana Yojana (PMMVY):** It is a maternity cash incentive scheme to provide conditions for safe delivery and nutrition practices. It is implemented in all the districts of the country in accordance with the provision of the National Food Security Act, 2013.

Under the Scheme, Pregnant Women and Lactating Mothers (PW&LM) receive a direct cash benefit transfer of Rs. 5,000 in three installments.

**Janani Suraksha Yojana (JSY):** The National Rural Health Mission's Janani Suraksha Yojana (JSY) aims to reduce maternal and infant mortality by promoting institutional delivery among pregnant women. Under the scheme, eligible pregnant women are entitled to cash assistance of Rs. 1400 (rural) and Rs. 1000 (urban) in low performing states.

The programme also offers performance-based incentives to ASHA (Accredited Social Health Activist) who promote institutional delivery among pregnant women.

#### **What are the major challenges in improving the MMR?**

**Lack of Infrastructure:** The quality of healthcare infrastructure in tier 3 cities and villages is lacking in several aspects. The healthcare facilities are not equipped with state of art technology equipment and resources like ultrasound machines, testing labs etc. This hinders delivery of quality maternal care to women.

**Economic Constraints:** As per Tendulkar committee estimates, around 22% of Indians live below the poverty line. The poor women lack access to adequate nourishment during pregnancy which results in complications in pregnancy.

**Lack of Skilled personnel:** There is shortage of doctors, nurses and other staff especially in rural regions. This hinders regular supervision and timely referral of women to emergency obstetric care when complications are diagnosed.

**Education Deficit:** A vast majority of the population still resides in rural areas and their lack of education makes them trust more on traditional midwives (birth attendants or *dais*) in comparison to the modern healthcare system.

**Data Discrepancies:** There are often data quality problems, particularly related to the underreporting and misclassification of maternal deaths. This gives an improper picture and sometimes enhances or reduces MMR beyond reality.

**Social Evils:** The existence of child marriage is still very much prevalent in India which results in early pregnancy which can't be handled by many young girls resulting in their deaths. Similarly, the obsession for having the desired number of male children results in more and more pregnancy cycles even in old age that adversely impacts maternal health.

Read More: [Child marriage in India](#)

### What are the reasons behind Kerala's good performance?

**First**, Kerala has made **substantial investments** in setting up high dependency units in every district and in improving 39 delivery points under the Union Health Ministry's LaQshya initiative.

**Second**, the **Confidential Review of Maternal Deaths** (an initiative by the Kerala Health Department since 2004-05) laid the foundation for all maternal health improvement initiatives. This initiative was further strengthened by **maternal near-miss audits** in all districts, to analyze the critical events which resulted in near maternal deaths.

**Third**, it developed the **Quality Standards in Obstetric Care** in 2012-13 to focus on the management of some of the common causes of maternal deaths — postpartum hemorrhage (PPH), pregnancy-induced hypertension (PIH), sepsis and amniotic fluid embolism.

### What should be the approach going ahead?

**First**, the States should cooperate with each other and **share the best practices** amongst themselves in the **spirit of cooperative federalism**. For instance, U.P, M.P and Assam can learn a lot from the success of Kerala.

**Second**, there was a slight jump in number of deaths due to the disruptions caused by the COVID-19 pandemic. MMR might also rise a bit in future. The focus has to be on the strengthening the capacity of the healthcare systems so that the progress made is not lost due to external shocks.

**Third**, the government **should adjust for underreporting and misclassification of deaths** and model-based estimates in the cases where data are not reliable. This is required to help the UN Maternal Mortality Estimation Interagency Group (MMEIG). It is composed of WHO, UNICEF, UNFPA, the United Nations Population Division, and the World Bank Group. The MMEIG is tasked with generating internationally comparable estimates of maternal mortality for the purposes of global monitoring.

**Fourth**, the government should provide **greater incentives to ASHA workers** who can lure the masses towards the modern healthcare setup. Further, **the government can enter into agreements with private medical colleges** and induce greater numbers of doctors to serve in rural regions.

**Fifth**, flagship schemes like **Beti Bachao Beti Padhao** should be duly implemented to tackle the education deficit and curb the occurrence of social evils.

## Conclusion

The Government needs to augment the overall ecosystem of maternal health in order to enable a further reduction in maternal mortality ratio. Mothers should be given due care and support during their journey of motherhood as it is the greatest and hardest thing to do in the world.

## Summary in Graphics

# Maternal Mortality Rate

### Definition by the WHO

The number of maternal deaths during a given time period per 100,000 live births during the same time period.

Maternal mortality ratio =  
(Number of maternal deaths/  
Number of live births) X  
100,000.

### Significance

It depicts the risk of maternal death relative to the number of live births and essentially captures the risk of death in a single pregnancy or a single live birth. The death can be due to any cause related to or aggravated by pregnancy or its management.

### Different from Maternal Mortality Rate

Maternal Mortality Rate reflects not only the risk of maternal death per pregnancy or birth but also the level of fertility in the population. In calculating Maternal Mortality Rate is denominator is replaced with number of women of reproductive age.

## Need to Reduce the MMR

### Right to Health

Right to Health a Fundamental Right under Article 21. Government's obligation to provide basic maternal healthcare

### Measure of Healthcare Levels

UNFPA notes 808 women die every day from preventable causes related to pregnancy

### Global Commitments

SDG 3.1 has set target to reduce MMR to 70 per 100,000 live births by 2030

### Demographic Requirement

Large number of women fall in reproductive age. Necessary to ensure maternal healthcare to all women

## Improving MMR: Government Initiatives

The Goal of the Government Initiatives is to achieve the **SDG 3.1 Target** of reducing MMR to **70 per 100,000 live births**.

The Government interventions have helped achieve **reduction in MMR** from **~430 in 1990** to **103 in 2017-19**.

**Institutional Deliveries** have increased from **47% in 2007-08** to **89% in NFHS-5**

### LaQshya

- 1 Labor Room Quality Improvement Initiative. Interventions include **improving infrastructure, availability of equipment and healthcare personnel, capacity building and process improvement**.

### PM Matru Vandana Yojana

- 2 Maternity cash incentive scheme for safe delivery and nutrition. **Pregnant women and lactating mothers** receive cash benefit of **INR 5,000**

### Janani Suraksha Yojana

- 3 Reduce MMR by **promoting institutional delivery among pregnant women**. Cash assistance of **INR 1,000-1,4000**. **Performance based incentives** for ASHA workers who promote institutional deliveries.

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## Improving MMR: Major Challenges

Despite the best efforts of the Government, India's MMR is high compared to global standards. **India ranks between 110-120** based on MMR. **36 countries** in the world have MMR < 10.

Best performing countries like Norway, Italy have MMR of **2 per 100,000 live births**

**Considerable disparities** exist among States within India with the MMR varying from **38 (Kerala)** to **203 (Assam)**

- 1 **Lack of Infrastructure**  
Infrastructure is inadequate in various aspects like lack of ultrasound machines, testing labs etc.
- 2 **Lack of Healthcare Personnel**  
Shortage of healthcare personnel hinders **regular supervision and timely referral to emergency obstetric care** in case of complication, and **reduces % of institutional deliveries**
- 3 **Social Evils**  
**Inadequate awareness of maternal health** due to lack of education, and **child marriage leading to early pregnancies** worsen the MMR.
- 4 **Poverty**  
High incidence of poverty means many pregnant women are **unable to access adequate nourishment** leading to complications and higher deaths.

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## Performance of Kerala

Kerala is India's best ranked State with MMR of 30



### Investments

Setting up high dependency units and improving delivery points under LaQshya



### Review of Maternal Deaths

Review of maternal deaths and **maternal near-miss audits** to address underlying reasons of maternal deaths



### Quality Standards

Quality Standards of obstetric care developed for management of common causes of maternal deaths like postpartum hemorrhage and sepsis

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Source: [The Hindu](#), [The Hindu](#)



## Karnataka High Court Judgment on Hijab – Explained, pointwise

### Introduction

A three-judge Bench of the High Court of Karnataka has pronounced its verdict on the petitions related to the row over wearing of hijab by female students in educational institutions. The bench ruled that wearing of hijab (head scarf) by Muslim women does not form a part of essential religious practices in the Islamic faith. The verdict has received a mixed response with some legal scholars pointing out the issues with the 'essential practices' test. Appeal has already been filed in the Supreme Court.

### What is the background of the issue?

The Karnataka government had passed an order **prescribing the wearing of uniforms in schools and pre-university colleges** under provisions of the Karnataka Education Act, 1983. The row had erupted after some Muslim girl students of the Government PU College for Girls, Udupi, said that they were denied entry to the college for wearing hijab. However, the college authorities claimed that they had prescribed a uniform and no religious attire was permissible to be worn along with the uniform.

The aggrieved Muslim girl students studying in two government pre-university colleges in Udupi district approached Karnataka High Court (HC) against the prescription of dress code and denial of right to wear hijab. The **petitioners argued** that wearing of **hijab is a part of essential religious practice as per Islamic faith** and college authorities cannot prevent them from attending classes wearing hijab.

The bench, in its **interim order passed on February 10**, had restrained all students regardless of their faith from wearing saffron shawls, scarfs, hijab, religious flags or the like in classrooms until further orders.

### What is the Karnataka High Court Judgment on Hijab issue?

The High Court ruled that **wearing of hijab (head scarf) by Muslim women does not form a part of essential religious practices** in Islamic faith and it is **not protected under the right to freedom of religion** guaranteed under **Article 25** of the Constitution of India.

The Court ruled that the **prescription of school uniforms does not violate either the right to freedom of speech and expression under Article 19(1) (a) or the right to privacy under Article 21** of the Constitution.

The Court held that the restriction against wearing of hijab in educational institutions is only a **reasonable restriction**. This is **constitutionally permissible** and the students cannot object to it. Thus it upheld the legality of the Karnataka Government's February 5 order.

The Court held that in '**qualified public places**' like schools; there cannot be the assertion of individual rights to the general detriment of general discipline and decorum.

Rules made at such places can't be seen as diluting rights under Article 14 (equality before law), Article 15 (no discrimination) and Article 19 (1) (freedom of expression).

### How is religious freedom protected under the Constitution?

**Article 25(1)** of the Constitution guarantees the **freedom of conscience** and the **right freely to profess, practise and propagate religion**. It is a right that guarantees negative liberty — which means that the State shall ensure that there is no interference or obstacle to exercising this freedom.

However, like all fundamental rights, the right to religious freedom is not absolute in nature. The State can restrict it on grounds of **public order, morality, health and other fundamental rights**.

### What is the Supreme Court's view on Religious Freedom?

The Supreme Court has evolved a practical test to determine what religious practices can be constitutionally protected and what can be ignored.

In the **Shirur Mutt Case (1954)**, the '**doctrine of essentiality**' was invented by the Supreme Court. The Court held that the term 'religion' will cover all rituals and practices '**integral**' to a religion, and took upon itself the responsibility of determining the essential and non-essential practices of a religion. The essential religious practice doctrine **protects only such religious practices which were essential and integral to the religion**.

### Where has the Supreme Court applied the essential religious practices test?

In 2004, the Supreme Court held that the **Ananda Marga sect had no fundamental right to perform the Tandava dance in public streets** since it did not constitute an essential religious practice of the sect.

In 2016, the Supreme Court upheld the discharge of a Muslim airman from the Indian Air Force for keeping a beard. The Court essentially held that **keeping a beard was not an essential part of Islamic practices**.

In **Seshammal v State of Tamil Nadu (1972)** the Supreme Court upheld the Tamil Nadu Hindu Religious and Charitable Endowments (Amendment) Act, 1970. The Court ruled that the purpose of the Act was to regulate secular functions like management and administration. It did not aim to regulate or change the rituals and ceremonies followed in the temples.

In **Sardar Syedna Taher Saifuddin Saheb v State of Bombay (1962)**, the 5 Judge Bench of the Supreme Court upheld the right and power of excommunication bestowed upon the Head Priest of the Dawoodi Bohra Community. It was further observed that **what constitutes an essential practice is to be gathered from the texts and tenets of the religion**. The Court said the Legislature was not permitted to reform a religion out of existence or identity.

### What are some criticisms of the essential religious practices test?

Scholars of Constitutional law like Prof. Faizan Mustafa (Vice-Chancellor of NALSAR University of Law, Hyderabad) have argued that the essentiality/integrality doctrine has tended to **lead the Court into an area that is beyond its competence**, and **given judges the power to decide purely religious questions**. As a result, over the years, Courts have been **inconsistent** on this question e.g., in **Gandhi v. State of Bombay (1954)**, the Supreme Court had said that no outside authority has any right to say that these are the essential parts of religion and it is not open to the secular authority of the state to restrict or prohibit them in any manner they like.

Prof. Mustafa points out that in some cases the Courts have **relied on religious texts** to determine essentiality, while in others the judgments were based on the **empirical behaviour of followers**. In yet some other Judgments, the Court based their decision on whether the practice existed at the time the religion originated, overlooking the fact that religious practices evolve over time.

### What are the earlier Judgments on Hijab?

**Amna Bint Basheer v Central Board of Secondary Education (2016)**: The Kerala HC held that the practice of wearing a hijab constitutes an essential religious practise but did not quash the dress code prescribed by CBSE. It rather provided additional safeguards, such as examining students wearing full sleeves when needed.

**Fathima Tasneem v State of Kerala (2018):** The Kerala HC held that **collective rights of an institution would be given primacy over the individual rights** of the petitioner. The case involved two girls who wanted to wear the headscarf. The school refused to allow the headscarf. However, the Court dismissed the appeal as students were no longer in the rolls of the respondent-School.

### What are the concerns associated with Karnataka High Court Judgment on Hijab?

**Narrow View:** The Judgment observes ‘...the Holy Quran does not mandate wearing of hijab or headgear for Muslim women...because of absence of prescription of penalty or penance for not wearing hijab....It is not that if the alleged practice of wearing hijab is not adhered to, those not wearing hijab become sinners, Islam loses its glory and it ceases to be a religion’. Prof. Mustafa argues this interpretation would seriously curtail the scope of religious freedom of all religions because this can be said about most religious practices. According to him the **judgment has taken an extremely narrow view of the freedom of conscience** and has demanded too heavy a burden of proof.

**Impact on Personal Freedom:** Prof. Mihira Sood of National Law University, Delhi has opined that **women should have the right to choose the attire they want to wear**. She argues that Courts are not the platform for religious reforms; ‘Individual fundamental liberties provide a far more sound and stable foundation for reform than secular Courts ruling on religious doctrine, which they are ill-equipped to do’.

### What lies ahead?

Petitions have been filed in the Supreme Court against the High Court Judgment. The Supreme Court has already referred the review of the *Sabarimala* Judgment (2018) to a larger bench and is considering the **correctness of the doctrine of essentiality** and **whether Courts should assume the role of clergy**. The Supreme Court Judgment on the issue will settle the debate.

On the administrative front, the Government needs to enhance **cooperation with parents, various organizations and communities** to prioritize the education of students above everything else.

Ms. Farida Khanam, an eminent Islamic scholar and Chairperson of the Centre for Peace and Spirituality, quotes several instances from the life of Prophet of Islam and argues that hijab had never been prescribed in the Holy Quran. She exhorts that Muslims must accept the Karnataka HC judgment wholeheartedly and take part in all educational facilities.

### Conclusion

Constitution guarantees freedom of religion as a fundamental right but it is not a sacrosanct right and can be curtailed on some grounds. The recent judgment is a testimony to this and should be followed in letter and spirit until the final Judgment by the Supreme Court

## The Issue of Sealed Cover Jurisprudence – Explained, pointwise

### Introduction

On March 15 2022, two separate benches of the Supreme Court red-flagged the practice of Courts accepting information from the Government agencies in sealed envelopes. In a case involving the Bihar Government, a three-judge bench headed by the Chief Justice N V Ramana made it clear that it wanted all arguments to be presented in open court. Justice D Y Chandrachud expressed similar concern while hearing on an appeal against Union Government’s ban on the Malayalam TV Channel, MediaOne. The channel had gone off air on February 8 after the Kerala High Court

upheld the ban by relying on documents submitted by the Union Government in a sealed envelope. But when the government repeated this practice before the Supreme Court, it was pulled up by a three-judge bench led by Justice Chandrachud that stayed the ban. Both the situations have again ignited debates over the usage and relevance of 'Sealed Cover Jurisprudence'.

### What is sealed cover jurisprudence?

It is a practice used by the Supreme Court and sometimes the lower courts, of asking for or accepting information from government agencies in **sealed envelopes that can only be accessed by the judges.**

No specific law defines the requirement of information in a sealed cover. The Supreme Court derives its power to use it from **Rule 7 of order XIII of the Supreme Court Rules** and **Section 123 of the Indian Evidence Act of 1872.**

It is stated under the said rule that if the Chief Justice or Court directs certain information to be kept in a sealed cover, **no party would be allowed access to the contents of such information,** except without the permission of the Chief Justice or the Court.

### What is the rationale behind its application?

**Public Interest:** Rule 7 states that Courts can accept sealed covers and keep the information confidential if its publication is not considered to be in the interest of the public e.g., not disclosing **details about survivors of sexual assaults or child abuse.**

**National Security:** According to the Evidence Act, official unpublished documents relating to affairs of the State are protected and a public officer cannot be compelled to disclose such documents. This is required to maintain the national security of the country.

**Facilitate Investigation:** Information may be sought in secrecy when its publication impedes an ongoing investigation, such as details which are part of a police case diary or money laundering cases.

**International Commitments:** Information needs to be kept confidential if it falls under the secret clauses of international commitments that can't be put in public domain by the participating nations.

What are some of the well-known cases involving Sealed Cover Jurisprudence?

**Rafale fighter jet deal Case (2018):** The Court had asked the Centre to submit details related to the deal's decision making and pricing in a sealed cover. This was done as the Centre had contended that such details were subject to the Official Secrets Act and Secrecy clauses in the deal.

**National Register of Citizens (NRC) Case:** The NRC coordinator was asked by the Supreme Court to submit period reports in sealed cover, which could neither be accessed by the Government nor the petitioners.

**BCCI Reforms Case (2014):** The probe committee of the cricket body had submitted its report to the Supreme Court in a sealed envelope. It requested the Court not to make public the names of nine cricketers who were suspected of a match and spot fixing scam.

**Bhima Koregaon case (2018):** In this case activists were arrested under the Unlawful Activities Prevention Act (UAPA). The Supreme Court had relied on information submitted by the Maharashtra police in a sealed cover.



Information submitted by state agencies in a sealed cover was also relied upon in the 2G and coal scam cases, the *Ram Janmabhoomi* case, the high-profile case pertaining to the death of judge B.H. Loya etc.

### What are the concerns associated with the sealed cover jurisprudence?

**Impact on Fair Trial:** Fair Trial involves an opportunity to see and cross examine the evidence produced by one party against the other party. However, sealed covers impairs this opportunity and undermines natural justice.

**Undermines transparency and Accountability:** Critics of this practice contend that it is not favourable to the principles of transparency and accountability. It stands against the idea of an open court, where decisions can be subjected to public scrutiny.

**Breeds Arbitrariness:** It is also said to enlarge the scope for arbitrariness in Judicial decisions. Judges are supposed to lay down reasoning for their decisions, but this cannot be done when they are based upon information submitted confidentially and can't be quoted in the Judgment.

**Credibility of Judiciary:** An increased reliance on seal cover can impair the credibility of judges as well as the legal system. It can also create suspicion among masses towards formulation of bureaucratic-judicial nexus against them.

**Restricts freedom of speech and expression:** A citizen can duly exercise her right under Article 19 when requisite information is available to her. Sealed cover impedes flow of information thereby restricting freedom of speech and expression. Further freedom of press is also curtailed as seen in case of recent ban on Media one channel.

### What are some of the cases where sealed cover jurisdiction was criticized by courts?

**P. Gopalakrishnan vs The State of Kerala (2019):** The Supreme Court said that disclosure of documents to the accused is constitutionally mandated, even if the investigation is ongoing. The documents may lead to a breakthrough in the investigation.

**INX Media case (2019):** A Bench of the Supreme Court had criticized the Delhi High Court for basing its decision to deny bail to the former Union Minister on documents submitted by the Enforcement Directorate (ED) in a sealed cover.

### What lies ahead?

**First,** the **government should resort to alternate methods** for protecting sensitive information and maintaining confidentiality. For instance, in-camera hearings already provide sufficient protection to sensitive information. In the *Anuradha Bhasin* case (2020), that dealt with security measures in Jammu and Kashmir following the abrogation of Article 370; the Supreme Court had ruled that **any portion perceived sensitive could be redacted**, and the rest should be disclosed to the opposite party.

**Second,** the **Supreme Court itself should reduce the demand for information in a sealed cover** as the Court on many occasions has demanded sealed covers e.g., in the case involving corruption allegations against a former CBI director, the Court insisted that the Central Vigilance Commission submit its report in a sealed cover. The rationale was ostensibly to maintain public confidence in the agency.

**Third,** the **three-judge bench in the MediaOne case** has said that it will expand the ambit of the case to **deal with sealed cover jurisprudence**. It is expected that the Court may formulate some concrete guidelines for acceptance of information in a sealed cover.

**Fourth,** the **government should function by upholding the doctrine of public trust** which states that people are the real masters and government is a mere trustee holding things on their

behalf. Therefore only a minuscule number of things must remain in the realm of secrecy like delicate international negotiations or those that relate to sensitive aspects of security etc.

**Fifth**, the courts also need to make sure that when an action is alleged to have curtailed fundamental rights, they are **bound to examine the legality of the action through the lens of proportionality** as said in **K.S Puttaswamy Case (2017)**.

### The Test of Proportionality

The Supreme Court had adopted the proportionality test proposed by Aharon Barak, the former Chief Justice, Supreme Court of Israel in the *Modern Dental College vs State of Madhya Pradesh* (2016) and reiterated it in the *K.S. Puttaswamy vs Union of India* (2017).



<b>01 Purpose</b>	The restrictive measure must have a designated purpose.
<b>02 Connection</b>	The restrictive measures must be rationally connected to the fulfilment of the purpose.
<b>03 No Alternative</b>	No Alternative measures are available that help achieve the purpose with lesser degree of limitations.
<b>04 Proportion of Balance</b>	There needs to be a proper relation between the importance of achieving the purpose and the importance of preventing the limitation on the constitutional right.

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### Conclusion

The Supreme Court's red flagging of sealed cover jurisprudence is a welcome step. It must now decisively curtail this practice in order to enhance the trust of masses in the legal system and ensure due adherence to the principle of natural justice.

### Summary in Graphics

### Sealed Cover Jurisprudence


The Meaning of Sealed Cover Jurisprudence



- It is the practice of Judiciary accepting information in sealed envelopes that can be **accessed only by the Judges of the Court**.
- The power to seek information in a sealed cover is derived from **Rule 7 of order XIII of the Supreme Court Rules and Section 123 of the Indian Evidence Act of 1872**.
- Rule 7 states that if the Chief Justice or Court directs certain information to be kept under sealed cover, **no party would be allowed access to the contents of such information without the permission of the Court**.

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### Rationale for Sealed Cover Jurisprudence



<b>01 Public Interest</b>	<b>Rule 7:</b> Courts can seek and accept sealed covers if its <b>publication is not considered to be in public interest</b> .
<b>02 National Security</b>	<b>Evidence Act:</b> Documents relating to the Affairs of the State are protected and a <b>public officer cannot be compelled to disclose such documents</b> .
<b>03 Facilitate Investigation</b>	Information may be sought in secrecy when its <b>publication impedes an ongoing investigation</b> , like a money laundering case.
<b>04 International Relations</b>	Information needs to be kept confidential if it falls under the secret clauses of <b>international commitments</b> .

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### Cases involving Sealed Cover Jurisprudence



- Rafale Fighter Jet Deal Case (2018)
- National Register of Citizens Case
- BCCI Reforms Case (2014)
- Bhima Koregaon Case (2018)
- Ram Janmbhoomi Case
- The Supreme Court criticized the practice in the P. Gopalakrishnan vs The State of Kerala (2019) and the INX Media case (2019)

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### Way Forward on Sealed Cover Jurisprudence



- |                               |  |
|-------------------------------|--|
| 01 Alternative Measures       | Alternative measures can be used to protect information e.g., <b>redacting only limited sensitive information.</b>   |
| 02 Check by the Supreme Court | The Supreme Court should lead by example and <b>limit the occasions/cases in which information is sought in sealed covers.</b>   |
| 03 Guidelines                 | The Supreme Court has decided to examine the issue in the context of MediaOne case. <b>Proper Guidelines</b> can address the concerns.   |
| 04 Corrective Action          | Government should <b>narrow the domain</b> in which to limit the sharing of information. Judiciary must <b>check every restriction through the lens of Proportionality Test.</b> |

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Source: [Indian Express](#), [The Hindu](#), [The Hindu](#), [The Hindu](#)

## [Kurukshehra March Summary] Agriculture Development – Explained, pointwise

### Introduction

The Economic Survey 2021-22 has noted the resilience in the agriculture sector during the past two years. COVID-19 pandemic impacted the agriculture sector the least in comparison to the services and industry sectors of the economy. In India, agriculture and allied sectors account for **18.8% of Gross Value Added (GVA) in the economy.** Against a pre-pandemic GVA **growth rate of 4.3%** (at 2011-12 constant prices) in 2019-20, it is expected to achieve the **growth rate of 3.9% in 2021-22.** However despite such resilience there are numerous issues that curtail the growth of the agricultural sector and hinder its long term sustainability. Realizing this, the recent union budget has proposed various initiatives and enhanced allocation towards the sector however much more needs to be done.

### What are the issues associated with agriculture in India?

**Access to Finance:** The small and marginalized farmers are unable to get requisite finance from formal sources. They rely on traditional sources like village money lenders who charge a very high interest rate and induce them into debt trap.

**Distress Sale:** Agricultural marketing still continues to be in a bad shape in rural India. In the absence of sound marketing facilities, the farmers have to depend upon local traders and middlemen for the disposal of their farm produce which is sold at throw-away price.

**Cropping Pattern:** Wheat and rice are the two most dominant crops produced in India after the green revolution. They are water intensive and have lower nutritional properties in comparison to millets. Nonetheless, the availability of subsidized water pumps and guaranteed Minimum Support Price (MSP) have enabled them to grow in rain deficit regions of Punjab and Haryana as well that has drastically impacted the ground water level.

According to the **Central Ground Water Board (CGWB)**, groundwater levels in Punjab decreased by about **85%** between 1984 and 2016.

**Degree of mechanization:** In spite of the large-scale mechanization of agriculture in some parts of the country, most of the agricultural operations in larger parts are carried on by human hand. They use simple and conventional tools and implements like wooden plough, sickle, etc. which leads to lesser productivity.

**Dependence on monsoon:** The Indian monsoon is becoming more erratic in nature. The country is witnessing a rise in more extreme shorter spells as well as an increase in dry seasons due to climate change. This has made the occupation even more challenging considering more than **60% of Indian agriculture is rain-fed.**

### What are the announcements related to Agriculture in the Budget 2022-23?

**Overall Allocation:** The Budget allocated INR 132,513.62 crore to the Ministry of Agriculture and Farmers Welfare (MoAFW). While the Department of Agriculture and Farmers Welfare (DAFW) got an allocation of INR 124,000 crore, the Department of Agriculture Research and Education (DARE) was allocated INR 8,513.6 crore. There is a 12.59% increase in the allocation of MoAFW in comparison to the actual expenditure year in the year 2020-21.

**Scheme allocation:** The Budget 22-23 allocated INR 123,326 crore towards the schemes. The share of central sector schemes and centrally sponsored schemes in DAFW's total schematic budget allocation is 85.72% and 14.28%, respectively. **(a) Pradhan Mantri Fasal Bima Yojana (PMFBY)** – 15,000 crores; **(b) Pradhan Mantri Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)** – 68,000 crores; **(c) Promotion of Farmer Producer Organizations (FPOs) and Agriculture Infrastructure Fund (AIF) schemes** – 500 crore each; **(d) Rashtriya Krishi Vikas Yojana (RKVY)** – 10433 crores; **(e) Krishonnati Yojana** – 7143 crores.

Table 2: Budget Allocation to Major Select Schemes of DAFW in the Ministry of Agriculture & Farmers Welfare

S. No.	Scheme	22-23 Budget Estimates (In Rs. Crore)	Percent share to Total Scheme Budget Allocation (in %)
1	2	3	4
<b>Central Sector Schemes</b>			
1	Pradhan Mantri Fasal Bima Yojana (PMFBY)	15,500	12.56
2	Pradhan Mantri Kisan Samman Nidhi (PM-Kisan)	68,000	55.13
3	Formation and Promotion of Farmer Producer Organisations (FPOs)	500	0.40
4	Agriculture Infrastructure Fund (AIF)	500	0.40
5	National Beekeeping Honey Mission (NBHM)	100	0.08
6	Modified Interest Subvention Scheme (MISS)	19,500	15.81
6	Others	1,610	1.30
<b>Total Central Sector Schemes</b>		<b>1,05,710</b>	<b>85.72</b>
<b>Centrally Sponsored Schemes</b>			
7	Rashtriya Krishi Vikas Yojana (RKVY)	10,433	8.45
8	Krishionnati Yojana	7,183	5.85
<b>Total Centrally Sponsored Schemes</b>		<b>17,616</b>	<b>14.28</b>
<b>Total Central Sector &amp; Centrally Sponsored Schemes</b>		<b>1,23,326</b>	<b>100.0</b>

Source: Union Budget 2022, Ministry of Finance, Government of India

**Source:** Kurukshetra March 2022



**Merging of Schemes:** The RKVY scheme has been restructured and various schemes have been merged under it. This includes *Pradhan Mantri Krishi Sinchai Yojana* (PMKSY), *Paramparagat Krishi Vikas Yojana* (PKVY), National Project on Soil Health, Rainfed Area Development and Climate Change and others. *Krishonnati Yojana* has a number of schematic projects viz. Integrated Development of Horticulture, National Mission on Edible Oils – Oil palm, National Food Security Mission, Sub-Mission on agriculture Extension, etc.

**Millets:** The budget has promised to provide support for post-harvest value addition, enhancing domestic consumption and facilitating brand and market development of the millet based products nationally and internationally.

**Technology:** The government proposes to promote extensive use of ‘*Kisan Drones*’ for crop assessment, digitisation of land records, spraying of insecticides, pesticides and nutrients etc. Further a push for improving the *Kisan Sarathi* digital platform was also emphasized.

**Promotion of Agritech startups:** The Budget announced a NABARD funded scheme to promote agri-tech startups focusing on diverse aspects of agriculture. NABARD will set up a blended capital fund under the co-investment model to financially support the agriculture startups and rural enterprises.

**Promotion of Natural Farming:** The Budget vowed to promote chemical free natural farming throughout the country. To begin with, farmers’ land in 5 km wide corridors along the river Ganga would be selected for promotion of natural farming practices.

**Agriculture Cooperatives:** The budget allocated Rs. 350 crore to digitize 63,000 primary agricultural credit societies (PACs) out of a total of 95,509 PACs in the country.

#### What is the significance of Budget announcements?

**Propel the Growth rate:** The enhanced allocation towards the sector will ensure a quick **agriculture-led economic growth**. Further integration of schemes would aim at ensuring higher growth in the agriculture sector, higher returns to the farmers and converged farming activities. This will provide the much needed relief to the sector and also reduce involuntary migration towards the cities.

**Better Risk management:** Allocation of PMFBY would help in mitigating risks in agriculture activities. PMFBY targets to cover 65 lakh farmers in FY22-23, with a coverage of 4.2 crore hectare of crop area.

**Credit availability and Infrastructure creation:** Focusing on Farmer Producer Organizations (FPOs) and Agriculture Infrastructure Fund (AIF) schemes would ensure increased credit availability and creation of better agri-infrastructure in rural areas.

Further, digitization of cooperatives will ensure smooth, adequate, hassle-free and cost-effective credit flow to the farmers. As it will ensure seamless financial transactions with utmost transparency and accountability.

**Prudent Targeting:** Amalgamation of various schemes under one umbrella scheme — *Krishonnati Yojana* would ensure effective targeting of eligible beneficiaries and enhance efficiency in the system.

**Nutritional Security and Water efficiency:** Focusing on nutri-cereals like millets can help in meeting the nutrition requirements of the citizens. Further they consume less water and are more tolerant to climate change.

**Agritech Revolution:** The *Kisan Sarathi* digital platform will improve the farmers' capability to negotiate and discover appropriate and just price, and consolidate their products for both the regulated and unregulated markets. Moreover, drones monitoring and assessment will help in improving farm practices for a higher and quality yield.

**Culture of Agripreneurs:** The NABARD initiative would ensure higher penetration of technology and technical expertise in the sector. It will help in establishing innovative, sustainable and profitable agriculture supply chain networks built by budding agripreneurs.

#### What further steps can be taken?

**First**, the government should ensure that there is **timely processing and settlements of claims** for insured farmers.

**Second**, the Budget's **current push for natural farming would require creation of adequate marketing facilities** specifically for organic farm products. There is also an urgent need to meet all logistic requirements in provision of input services to adoption of organic agronomic practices in the country.

**Third**, the farmers should be sensitized and encouraged to use more water efficient technology as switching to less water intensive crops can't happen overnight e.g., the **direct-seeded rice (DSR) method** can help reduce water consumption by as much as 35% over the traditional process of transplanting rice seedlings from a nursery to waterlogged fields.

**Fourth**, In the long run, the government needs to make sure that crop diversification occurs and farmers residing in rain deficit regions are not growing water intensive crops. For instance, Haryana launched the '**Mera Pani Meri Virasat**' scheme, under which an incentive of Rs 7,000 is being given to farmers to switch from paddy.

#### Conclusion

The Budget has reaffirmed its goal to transform the farm business into a lucrative one by modernizing agriculture through better input supplies and services, improving technology penetration, enhancing marketability of farm products and attracting investments into agriculture.

**Source:** Kuruکشetra March 2022

### India-Australia Bilateral Relationship – Explained, pointwise

#### Introduction

The India Australia relationship has undergone rapid evolution in recent years, developing along a positive track, into a strategic partnership. The two nations have much in common, underpinned by shared values of a pluralistic, Westminster-style democracies, Commonwealth traditions, expanding economic engagement and increasing high level interaction. Recently, the 2nd India-Australia Virtual Summit took place on March 21, 2022. During the summit, the leaders reviewed the multi-faceted relationship between the two countries and exchanged views on regional and global developments. The Summit follows the historic first Virtual Summit on June 4, 2020 when the relationship was elevated to a Comprehensive Strategic Partnership.

**What is the history of India Australia relationship?**

The historical ties between India and Australia started immediately following European settlement in Australia from 1788. All trade to and from the penal colony of New South Wales was controlled by the British East India Company through Kolkata.

India and Australia established diplomatic relations in the pre-Independence period, with the establishment of India Trade Office in Sydney in 1941. The end of the Cold War and simultaneously India's decision to launch major economic reforms in 1991 provided the first positive move towards development of closer ties between the two nations.

With the passage of time, the relationship gained momentum towards a strategic relationship, alongside the existing economic engagement. Since the elevation of relationship in 2020, the countries have advanced practical actions on cyber and critical technologies, maritime affairs, defense ties, economic and business links and Quadrilateral cooperation.

**What are the key outcomes of the 2nd Virtual Summit?**

**Announcements:** (a) Establishment of **Annual Summit** between India and Australia; (b) Establishment of General Rawat India-Australia **Young Defense Officers' Exchange Programme**; (c) Return of artefacts by the Government of Australia; (d) Similar Tax benefits for investments by Australia's sovereign and pension funds in India as in Australia; (e) Financial Aid for Pacific Island Countries under Infrastructure for Resilient Island States (IRIS) and International Solar Alliance (ISA) initiatives

**Signed Documents:** (a) MoU on Co-Investment in Australian Critical Minerals Projects between Khanij Bidesh India Ltd. (KABIL), India and Critical Minerals Facilitation Office (CMFO), Australia; (b) Letter of Intent regarding Migration and Mobility Partnership Agreement; (c) Letter of Arrangement between India and Australia for Educational Qualifications Recognition; (d) MoU for cooperation and collaboration on broadcasting between Prasar Bharati, India and Special Broadcasting Service (SBS), Australia.

A **Joint Statement** was issued on the occasion covering various aspects of the deepening Comprehensive Strategic Partnership.

**What progress has been made in India Australia Relationship in recent years?**

**Economic Cooperation:** Bilateral trade between the two countries stood at about US\$ 12.5 billion in FY 2020- 21 and has already surpassed US\$ 17.7 billion in the first 10 months of FY 2021-22. Key imports from Australia include coal, gold and LNG while key exports to the country from India include diesel, petrol and gems and jewellery.

**Security Cooperation:** India and Australia are both members of the Quad (Quadrilateral Security Dialogue) along with the US and Japan. Further Australia participated in the 2020 and 2021 edition of Malabar Naval exercise.

**Cultural Cooperation:** Like India, Australia's story stretches back tens of thousands of years. Australia's Indigenous peoples are custodians of the oldest continuing civilisation in the world. This is the reason the Australian government returned 29 culturally significant artefacts to India.

**Science and Technology:** The countries have established an Australia-India Strategic Research Fund (AISRF) – a pillar of collaboration on science, technology and research and successfully conducted the 2021 India Australia Circular Economy Hackathon. Australia is also supporting India's Gaganyaan Space Program.

**People to People Ties:** Australia is investing in India's talented young people through a new Future Skills Initiative between education and training providers and industry. This

complements the Australian government's significant new *Maitri* scholarships and fellowships which gives Indian students and researchers the chance to experience Australia's world class education system.

**Energy Cooperation:** A Civil Nuclear Cooperation Agreement between the two countries was signed in 2014. The agreement came into force in 2015 and provides the framework for substantial new trade in energy between Australia and India.

**Read More:** [India-Australia relation: Towards sustainable future](#)

**Regional and Multilateral Cooperation:** Both the countries are part of QUAD, G20, WTO, WHO's COVAX, ISA etc. regional and multilateral initiatives.

### What is the significance of India Australia relationship?

**Indo-Pacific Stability:** Both nations aspire a free, open, inclusive, and prosperous Indo-Pacific. The establishment of QUAD grouping and active participation by both is necessary to counter China's actions in the region.

**Gateway to Pacific Countries:** The growing cooperation would help India get better access to Pacific Island nations like Kiribati, Solomon Islands etc. as Australia enjoys a high degree of influence over them.

**Indian Diaspora:** As per the Australian Bureau of Statistics' 2016 census, 619,164 people in Australia declared that they were of ethnic Indian ancestry which made 2.8% of the Australian population. This huge number induces India to work in tandem with Australia for ensuring their well being and development.

**Upholding International Law:** Both the nations have a firm commitment on a rule based international order. They believe in sovereign equality of nations and progression based on mutual respect and understanding.

**Geo Strategic Considerations:** Considering Australia's proximity with the Indian Ocean, active engagement is desired for maintaining India's strong position in the Indian Ocean region. Further, Australia's support is desired for getting membership of the Nuclear Suppliers Group and bringing reforms to UNSC.

### What are the concerns impeding the relationship?

**India's stand on Russia- Ukraine crisis:** Australia has criticized Russian invasion of Ukraine and sided with the U.S. and western countries. However, India has refrained from criticizing Russia over the issue. This can create differences in bilateral discourse and the functioning of QUAD.

**No Free Trade Agreement:** Both the nations have been interacting and communicating with each other for decades but have failed to create a consensus on a Free trade agreement.

**China's Discontent:** China is unhappy with growing security cooperation between Australia and India. The Chinese government responded to the Quadrilateral dialogue by issuing formal diplomatic protests to its members, calling it "Asian NATO".

**Lack of Uranium Supply:** The progress on uranium supply has been very low, despite efforts from both sides. In 2017, Australia had sent its first uranium shipment to India but that was cited as "a small sample of uranium" transferred "purely for testing purposes".

### What lies ahead?

**First,** the countries should focus on concluding an Early Harvest Agreement and later on signing a Comprehensive Economic Cooperation Agreement (CECA). An early harvest trade agreement is



used to liberalize tariffs on the trade of certain goods between two countries or trading blocs before a comprehensive FTA (Free Trade Agreement) is concluded.

**Read More:** [Explained: India-Australia interim trade agreement and FTA](#)

**Second**, the High Commissions of both the nations should ensure that the proposed agreements are duly signed in future.

**Third**, interaction should be enhanced in the emerging fields like cyber security and cyber governance. The inaugural India-Australia Foreign Ministers' Cyber Framework Dialogue held on 12 February 2022 is a positive step in this regard.

**Fourth**, both India and Australia can work to remove the obstacles in supplying Uranium from Australia to India. This would help India attain its Energy Security and reduce the reliance on fossil fuels.

### Conclusion

The virtual meeting reinforced the warmth and close bonds between India and Australia. Leaders of both sides reiterated their commitment to driving the Comprehensive Strategic Partnership to new heights and working as the rule of law in the international arena.

**Source:** [The Hindu](#), [Ministry of External Affairs](#)

## Central University Entrance Test: Benefits and Concerns – Explained, pointwise

### Introduction

Education is the foundation stone for overall well-being of an individual. Realizing this, the government is undertaking numerous reforms in the spirit of the New Education Policy. On March 21, 2022, the University Grants Commission (UGC) announced the introduction of the Central University Entrance Test (CUET), which is now mandatory for undergraduate admission at any of the 45 central universities in the country. It would be a computer-based exam conducted by the National Testing Agency in 13 languages and substitute the current practice of admission based on a candidate's score in 12th class.

### What is the background of CUET?

Several governments, over the years, have made attempts to replace multiple entrance tests with a single common test. In 2010, the government had launched the Central Universities Common Entrance Test (CUCET) however it failed to gather steam since only 14 central universities had adopted it until last year.

CUET is a revamped version of CUCET and it is now compulsory for all 45 central universities to adopt it. This has come after the announcement of the new National Education Policy (NEP), which advocates the need for an entrance test for university admissions.

### What are the features of CUET?

The **National Testing Agency (NTA)**, which conducts entrance tests such as JEE (Main) and UGC-NET, will also conduct CUET for all central universities in the first week of July. A student's Board marks will have no role in determining her admission to a college or a programme. Admission will be based only on her CUET score. The Universities can use Board marks as the minimum eligibility criteria for admission though.

For skill-based courses that have major practical components, such as music, painting, sculpture and theatre, universities will be allowed to conduct practical exams or interviews along

with CUET. For professional programmes such as engineering and MBBS, central universities will admit through the entrance exams JEE (Main) and NEET respectively.

### What will be the process of CUET?

It will be a **3.5 hours computer-based test** that will be held in two shifts and can be taken in **13 languages** — Hindi, Marathi, Gujarati, Tamil, Telugu, Kannada, Malayalam, Urdu, Assamese, Bengali, Punjabi, Odia and English.

CUET will essentially have **three parts**.

The **first part will test a candidate on a language of her choice**. This will consist of reading comprehension, questions on vocabulary, synonyms and antonyms, besides other things. There will be a choice of 13 languages.

The **second part is focused on testing a candidate's domain-specific knowledge**. This section offers a total of 27 domains, and a candidate can choose to have her knowledge tested in at least one and a maximum of six domains.

The **third part of the entrance test will be a general test** with questions on general knowledge, current affairs, general mental ability, numerical ability, quantitative reasoning, logical and analytical reasoning.

Apart from the compulsory language test, a candidate's participation in the domain-specific part of CUET and the general test will depend on whether a central university wants it for the programme she is applying for.

### What is the scope of CUET?

At the moment, CUET has been made compulsory for central universities but the government is open to other institutions, including private universities, adopting this examination instead of conducting their own.

Further, conducting admissions to postgraduate programmes through CUET is not compulsory for central universities. Therefore, they are free to adopt CUET for PG admissions or stick to their own admission process for now.

### Why is the need of CUET?

**Diversity in Evaluation:** The government did not favor using Board marks for admission because of the 'diversity' in evaluation methods adopted by different Boards. Some Boards like CBSE are more generous than others in marking and this gives some students an unfair advantage over others.

**Unrealistic Cutoffs:** The current pattern has led to generation of unrealistic cutoffs in many universities e.g., many colleges of Delhi University released their first cutoff at 100%.

**Second Chance:** It would give students another opportunity to show their potential even if they are unable to score well in board examinations.

**Improper Pandemic scores:** During the pandemic, many schools awarded marks in an arbitrary manner or inflated the marks of their students. In such a situation, the 12th marks don't show a true picture of a candidate's capability.

**Easing of Burden:** The students need to give just one entrance test rather than multiple entrances for all the central universities which would save a lot of time and release considerable burden on them.

**What are the concerns associated with CUET?**

**Burden on the Marginalized Section:** Some academics have expressed fear that CUET will result in additional expenditure towards coaching. This would put financial strain on the marginalized section.

**Reduce relevance of Board Examinations:** With CUET in place, students might pay less attention to 12th class syllabus and school learning. They would focus on CUET and may even start skipping their regular classes as is done by many students who are preparing for JEE in Kota, Rajasthan.

**Curtailing the Autonomy:** The new system will curtail the autonomy of institutions to respond to ground realities. Cut-offs are decided so as to have desired over-admission to ensure that seats do not go empty after closure of admission process.

**Infrastructure Deficit:** It is not clear whether CUET will be conducted on a single day or multiple days. If it is conducted on a single day, then many cities especially tier 3 would not be able to provide the requisite number of computer labs and equipment for conducting the test.

**Lack of Vernacular content:** CUET can be taken in 13 languages but experts have expressed concerns over the quality of content that would be provided in vernacular languages versus English.

**What lies ahead?**

**First**, there should be a **minimum weightage of 12th marks** so that students don't completely ignore their board examinations for CUET.

**Second**, the **teachers of government schools should give additional classes** to students for preparing for CUET. This would reduce the financial burden of marginalized sections.

**Third**, the government should give **extra funds for spending on education** so that more computer labs are built for conducting CUET. The **National Education Policy** has prescribed raising expenditure to 6% of GDP on the country's education.

**Fourth**, the government can make a **provision of common counseling sessions** for CUET students in the future to ease the admission process as is done in the JEE(Main) entrance test.

**Fifth**, the NTA should deploy **additional vernacular experts** so that students of local languages don't feel at a disadvantage in comparison to English medium students.

**Conclusion**

The CUET can be a game changer in the sphere of higher education and help in curtailing the divide created by evaluation methodology of different education boards in the country. However, a greater degree of equity can be infused only when the issues surrounding CUET are duly addressed in a timely manner.

**Source:** [Indian Express](#), [The New Indian Express](#)

**Combating TB: Lessons from COVID-19 – Explained, pointwise****Introduction**

March 24 is observed as the World Tuberculosis day. The day is designed to build public awareness about the global epidemic of tuberculosis and efforts to eliminate the disease. It is a preventable and curable disease, but it continues to impact the lives and development of millions of children and adolescents. As per World Health Organization (WHO), children and young adolescents aged under 15 years represent about 11% of all people with TB globally. Experts suggest that replicating the strategies used to manage COVID-19 could prove beneficial in combating TB and limiting its prevalence and magnitude.

**What is Tuberculosis (TB)?**

Tuberculosis (TB) is an infectious airborne bacterial disease caused by **Mycobacterium tuberculosis**. It most commonly affects the lungs but can also damage other parts of the body.

Types of TB-related conditions: **(a) Latent TB:** The bacteria remain in the body in an inactive state. They cause no symptoms and are not contagious, but they can become active; **(b) Active TB:** The bacteria do cause symptoms and can be transmitted to others; **(c) Multi Drug resistant (MDR) TB:** It is caused by an organism that is **resistant to at least isoniazid and rifampin**, the two most potent first line TB drugs. These drugs are used to treat all persons with TB disease; **(d) Extensively drug-resistant TB:** It is **resistant to both first- and second-line drugs** due to drug misuse and mismanagement. It is a more serious condition than MDR TB. Its **symptoms** usually include a cough (sometimes blood-tinged), weight loss, night sweats and fever. Patients with active symptoms require a long course of **treatment involving multiple antibiotics**.

**What is the current status of TB?**

In the decade between 2010-20, 1.5-2 million individuals died every year because of tuberculosis. TB disproportionately affects **people in low-income nations, the poor and the vulnerable**. According to **WHO's Global TB report 2021**, with 25.9 lakh TB cases, **India is home to 25% of the global tuberculosis cases**.

India has reported more than 20% decline in case notifications. The country reported 18 lakh tuberculosis cases in 2020 as compared to 24 lakh in 2019. The fall not due to reduced cases of the disease but due to under-reporting. Fear of COVID lockdowns and economic stress discouraged people from visiting medical facilities to notify of the disease and to get treatment.

**What are the causes behind high occurrence of TB in India?**

**Poverty:** A majority of TB patients in India get affected due to undernourishment. Poverty impacts their accessibility to food and ability to get treated which makes them more susceptible to occurrence and continuance of TB.

**Bad Habits:** Over a hundred million Indians smoke tobacco — a strong risk factor for both developing TB, and dying from it. A strong addiction towards it induces the person to consume tobacco even during the TB treatment which makes it difficult to cure.

**Underreporting:** One of the major factors of TB prevalence in India is under-reporting of TB cases. This leaves the risk of spreading TB to other healthy individuals. Inaccurate estimates of the tuberculosis burden in India between 2000-2015, has led the World Health Organization (WHO) to seriously underestimate the TB epidemic.

**Social Attitude:** Patients often hesitate to seek treatment or deny their condition altogether for fear of social discrimination and stigmatisation. Moreover, even after being diagnosed, they fail to complete their treatment resulting in development of multi drug resistance.



Many other issues like human resource shortage, payment delays, procurement delays and drug stock-outs add to prevalence of TB.

### What steps have been taken for combating TB?

**National Strategic Plan for TB elimination (2017-25):** It plans to provide incentives to private providers for following the standard protocols for diagnosis and treatment as well as for notifying the government of cases. Further, patients referred to the government will receive a cash transfer to compensate them for the direct and indirect costs of undergoing treatment and as an incentive to complete treatment.

**Nikshay:** It is an online tuberculosis reporting system for medical practitioners and clinical establishments that aims to increase the reporting of tuberculosis, especially from the private sector.

**TB-free India Campaign:** It was launched to take the activities under the National Strategic Plan for TB Elimination forward in a mission mode for ending the epidemic by 2025.

Currently, **two vaccines VPM (Vakzine Projekt Management) 1002** and **MIP (Mycobacterium Indicus Pranii)** have been developed and identified for TB, and are under Phase-3 clinical trial.

**Bacille Calmette-Guérin (BCG) vaccine** is presently the sole vaccine available for the prevention of Tuberculosis (TB). However, its efficacy is very less in countries on or near the equator like India, Kenya and Malawi, where the burden of TB is higher.

**Read More:** [Eliminating Tuberculosis \(TB\)](#)

### What are the similarities between TB and COVID-19?

Both are transmissible and airborne infections.

Both are more likely to spread in crowded settings, and harm people with immuno-compromising conditions.

Both have impacted a huge number of people across the globe and can be controlled with collective efforts.

### How has the arrival of COVID-19 caused a surge in cases of TB?

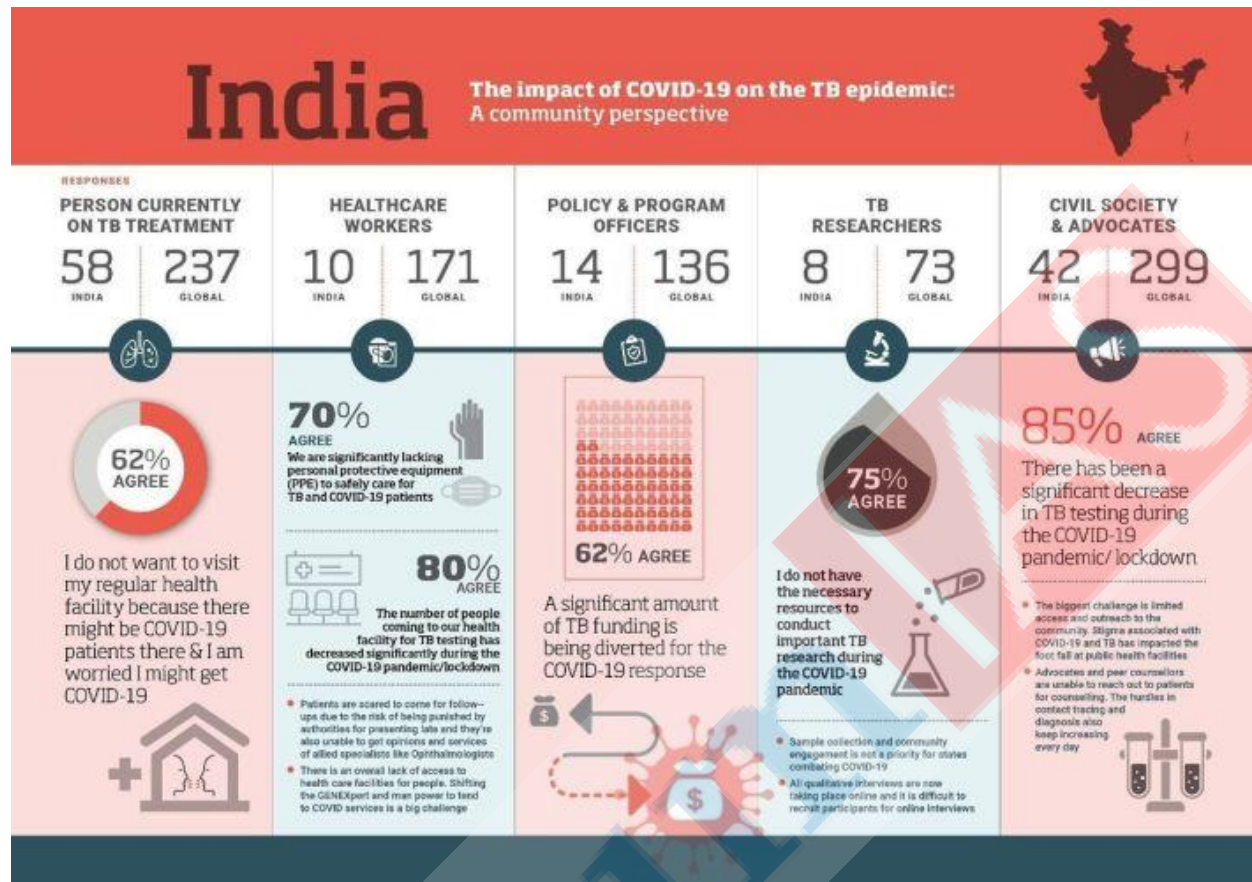
**Lack of Testing:** Before the Covid pandemic, it was assumed that a third of all individuals with TB were undiagnosed, and were likely spreading the disease in their communities. In the **past two years, case detection has dropped**, suggesting that the proportion of such 'missing cases' is likely to have increased.

**Fear and Stigma:** Lockdowns, the **fear of healthcare establishments and the stigma associated with respiratory symptoms** have possibly contributed to the increase in "missing cases".

**Accessibility issue:** For those diagnosed, access to medicines has not been easy during the Pandemic.

**Shortage of Personnel:** The redirection of human resources within the health system during the three Covid waves has left TB facilities understaffed leading to poorer quality and delayed care.

**Historical Evidence:** Studies have suggested that Covid may trigger pathways leading to reactivation of dormant TB bacilli. Historically, turmoil in society (such as wars), food insecurity, poverty and malnutrition have resulted in surges in the incidence of TB.



Source: *BMJ Journal of Global Health*

**Read More:** [COVID-19 reverses decades of progress in TB elimination, India worst-hit: WHO](#)

How can the lessons learnt from managing COVID-19 be used in combating TB?

**Test, treat and track** has been a strategy successfully employed for managing COVID-19. There is a need to aggressively scale up testing with innovative strategies such as active surveillance, bidirectional screening for respiratory tract infections using the most sensitive molecular diagnostics, and contact tracing.

The biggest victory against COVID-19 has been the **speed with which vaccines** were developed, scaled up and deployed. The same approach must be replicated for tuberculosis; lobbying for funding from governments and industry to develop a successful vaccine for TB.

During COVID-19, there was a **high degree of emphasis on sensitizing people** and inducing them to behave in COVID appropriate manner. This involved ventilation of indoor spaces, voluntary masking and avoidance of crowded places. We need to ensure similar behavior from TB patients to reduce the spread.

**Read More:** [Importance of COVID 19 learnings in fight against tuberculosis](#)

**What more should be done towards combating TB?**

**First**, India needs to **triple the funding** not just for TB but for health, nutrition and preventive services. It needs to actively invest on a similar scale as done during the COVID-19. For instance, the amount of money spent by governments for research and development in the first 11 months of the COVID-19 pandemic was 162 times the corresponding amount spent on TB in 2020.

**Second**, the country needs to **invest in state-of-the-art technologies**, build capacity, expand its health workforce and strengthen its primary care facilities.

**Third**, there is also a need to consider **telemedicine and remote support** as important aspects of health services that could play a pivotal role in early detection and treatment.

**Fourth**, the government must ensure that **social security programmes** are duly implemented. They work towards prevention of modifiable risk factors like malnutrition, poverty etc. This would possibly pay richer dividends than an exclusive focus on 'medicalising' the disease.

**Fifth**, the government must build an **open and collaborative forum** where all stakeholders, especially affected communities and independent experts, take a lead role.

### Conclusion

It's time to acknowledge the magnitude of the disease, and work harder at offering individuals equitable healthcare access and resources that the disease warrants. Collective effort is desired at local, national and international level to attain SDG 3.3 which aims to end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases by 2030.

Source: [Indian Express](#)

## Comparison of National Pension Scheme with Old Pension System – Explained, pointwise

### Introduction

The National Pension Scheme (NPS) was introduced on January 1, 2004 for all employees of the Union Government appointed on or after this date. Most State governments also adopted this scheme for their staff. However, some states are having a re-think and planning to revert to the old pension scheme, which is an unfunded 'pay as you go' scheme. Rajasthan and Chhattisgarh have already reverted to the old pension scheme. Some political parties are demanding the same in Madhya Pradesh, Assam, Himachal Pradesh and Telangana.

### What was the old pension 'Pay As You Go' (PAYG) scheme?

Prior to 2004, India had the PAYG plan where the beneficiaries decided how much they wanted to contribute either by having the specified amount regularly deducted or by contributing a lump sum amount. Under this, the entire pension amount was borne by the government while fixed returns were guaranteed for employee contribution to the General Provident Fund (GPF). Governments paid 50% of the last drawn salary plus DA as pension to employees after retiring, and half of that to their eligible dependent family members in case of death. Minimum pension was Rs 9,000.

### What is the National Pension Scheme (NPS)?

The PFRDA Act of 2013 defines the NPS as a **contributory pension scheme** whereby contribution from a subscriber and a matching contribution from the government is collected and accumulated in an individual account.

The proposal to move from **the defined benefit scheme (DB) to a defined contribution scheme (DC)** had been under consideration of the Government since the mid-1990s. NPS was **introduced in 2004** and **made mandatory** for central government employees as well as staff of those state governments which adopted this scheme. However, It is voluntary for the workforce in the unorganized sector. At present, 10% of basic pay and dearness allowance (DA) is deducted as a voluntary contribution towards it.

**What is the current status of National Pension Scheme?**

**All states have migrated to the NPS**, except for West Bengal and Tamil Nadu since adoption had to be done on a voluntary basis. However, Rajasthan and Chhattisgarh have moved back to the old scheme recently.

As per SBI report, **there are around 55 lakh state government employees** enrolled in NPS as of now. It further noted that the yearly contribution of the state government employees is in excess of Rs 2.5 lakh crore for this financial year.

However, it says that asset growth has been affected by the Ukraine-Russia conflict and may fall short of the Rs 7.5 lakh crore declared target by March 2022 this year.

**Why did the government introduce National Pension Scheme?**

**Coverage:** The older pension schemes covered only around 12% of the total workforce, leaving nearly 88% of workers without any pension coverage.

**Fiscal Burden:** The PAYG scheme was proving too expensive and there were apprehensions that it would sooner than later become fiscally unsustainable. The Fifth Pay Commission (2006) gave a liberal award which further increased expenditure on pensions. Since most state governments also adopt a similar salary and pension structure, **state finances also come under stress**. The expenditure on Union civil service pensions was estimated to be 2.31% of the GDP in 2004-05. Economists at the India Pension Research Foundation estimated (in 2005) that the implicit pension debt of the Government of India worked out to about 56% of the GDP. In other words, PAYG would have become fiscally unsustainable for the Governments.

**Future Commitments:** It was felt that pension liabilities of the governments will go up even more in future. This would happen due to improvement in life expectancy, periodical additions to dearness allowance and linking of pension to prevailing levels of salaries. Moreover, many economists have criticized the PAYG scheme as putting the burden on future generation because under PAYG, contributions of the current generation of workers were explicitly used to pay the pensions of pensioners. Hence, a PAYG scheme involved **direct transfer of resources from the current generation of tax payers to fund the pensioners**.

**Disincentivize Early Retirement:** The old scheme used to incentivize early retirement as the pension was fixed at the last drawn salary. This early retirement resulted in under-utilization of human resources by the government.

**How does NPS ensure safety and security of employees' contribution?**

NPS is so designed that a subscriber can ensure that her investment is safe and secure.

The contributions to the NPS are managed by professional fund managers like the LIC, ICICI etc. The fund managers are **selected through a transparent and competitive process**. NPS **allows the subscriber to choose her fund manager and her preferred investment option** including a 100% government bond option. A guaranteed return option could also be considered to provide an assured annuity.

An **NPS Trust** has also been constituted to **regularly oversee performance of fund managers** with a trustee bank to efficiently manage fund flows. A **custodian has also been appointed** to hold the securities with subscribers being beneficial owners of the assets.

This arrangement has been working well for over a decade now.

**Why are some States switching to the old pension model?**

**Market Uncertainty:** There is an apprehension in certain sections of the staff that the new NPS will not deliver the same benefits as the old scheme. They believe that their money will not be



safe in the hands of fund managers considering the market uncertainty and they might get a very low amount of pension.

**Growing Resentment:** There has been a constant demand from those who joined government services that the 'contributory pension' scheme introduced in 2004 be reversed to the 'defined pension' scheme. Resentment against the new scheme has been simmering and breaks out in mass protests now and then.

**Reducing burden on Employees:** Under the old scheme, all the burden is being borne by the government and employees get greater disposable income in their hands along with an assuredness of pension.

**Attracting Good Talent:** The uncertainty regarding NPS may discourage many talented youth to enter into the government sector considering a rise in salaries and other benefits offered by the private sector in the future.

**Populist measure:** Some experts are calling it a populist measure as employees are a very vocal and an important pressure group. They are also the people who implement government policies and programmes, and widespread disgruntlement amongst them can have an adverse impact on the outcomes.

#### What should be done?

**First,** Considering the non viability of old pension schemes, a former Union Finance Secretary has recommended that **the government should design an 'assured pension' scheme.** This should combine elements of both the defined and the contributory pension schemes.

**Second,** the future pay commissions should move towards the concept of **"cost to company" (C-to-C)** and include the cost of assured pension while determining pay revisions.

**Third,** the government should also **revisit the structure of the civil services** to ensure that the organizations don't become 'top heavy' over time, as they have now.

**Fourth,** until a new scheme is created, focus should be on reforming the NPS as per **CAG 2018 recommendations:** (a) A foolproof system needs to be put in place to ensure all nodal offices and eligible employees are registered under NPS; (b) Delays need to be penalized and compensation affected to avoid loss to the subscriber, (c) Government to ensure that rules on the service matters are in place for the government NPS subscribers.

#### Conclusion

The experience so far has been that NPS has given good returns and many experts believe that the annuity is likely to be as attractive as in the old pension scheme, if not better. However, another set of experts criticize NPS due to its uncertainty. There is no doubt that old pension system will prove to be fiscally unsustainable. Thus current scenario warrants reforming NPS and providing a greater degree of assurance to the subscribers.

**Source:** [The Times of India](#), [The Times of India](#), [The Times of India](#)

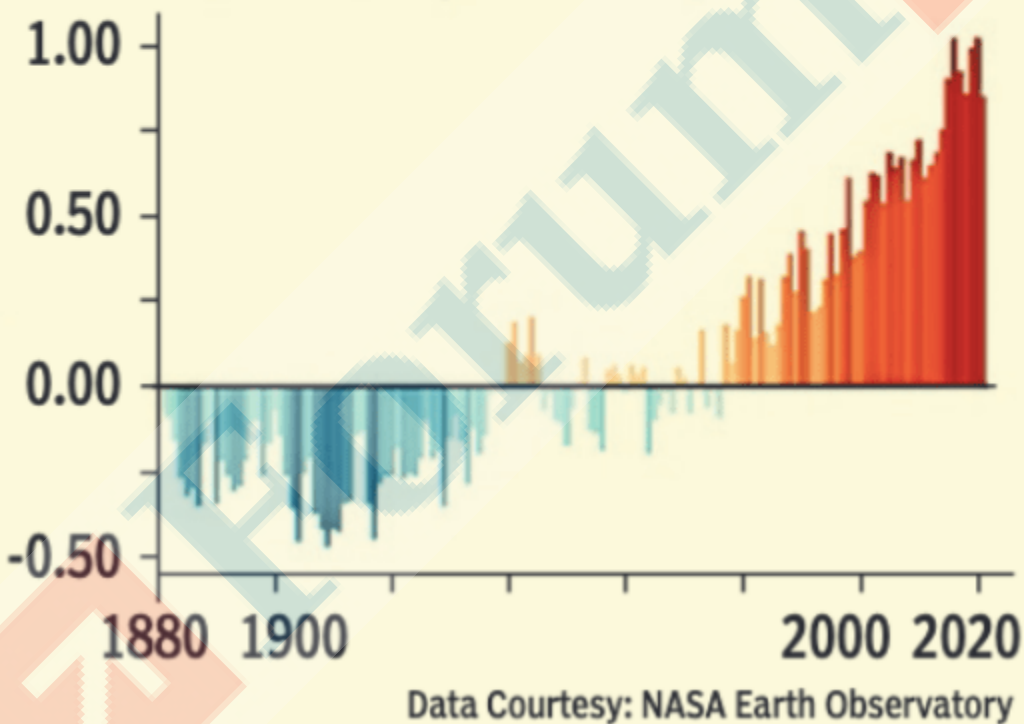
### Heat Waves: Rising Frequency and Intensity – Explained, pointwise

### Introduction

The IPCC data show that the atmospheric CO<sub>2</sub> concentrations today are higher than at any time in the prior two million years. The temperatures today have exceeded those in the last 6,500 years. Gentler summers have been replaced by intense heat waves. In 2003, Europe experienced 47°C. In 2016, India witnessed 51. 0°C and in 2021, Canada experienced 49. 6°C. In 2022, Antarctica is 40°C hotter than usual. This rising intensity of heat waves causes a significant impact on health, assets and stability of the world. The situation warrants enhanced engagement of communities and nations in order to duly tackle the approaching danger of heat waves.

## OUR HEATED HISTORY

From 2015 onwards, we are experiencing the warmest years on modern record, with 2021 joining 2016, 2019 and 2020 as the hottest years ever



Source: *The Times of India*

### What are heat waves?

According to the Indian Meteorological Department (IMD), a Heat wave occurs if the maximum temperature of a station reaches at least 40°C or more for Plains and at least 30°C or more for Hilly regions. There are other criteria as well:

#### (a) Based on Departure from Normal Temperature

Heat Wave: Departure from normal is 4.5°C to 6.4°C

Severe Heat Wave: Departure from normal is >6.4°C

(b) **Based on Actual Maximum Temperature**

Heat Wave: When actual maximum temperature  $\geq 45^\circ\text{C}$

Severe Heat Wave: When actual maximum temperature  $\geq 47^\circ\text{C}$

Heat Wave is declared if above criteria are met in at least 2 stations in a Meteorological subdivision for at least two consecutive days.

### **What is the scenario of heat waves in India?**

A recent study by the Banaras Hindu University (BHU), in collaboration with the Department of Science and Technology (DST) and the Ministry of Earth Sciences (MoES), has found a spatial shift of heatwaves in India.

The study has **found a warming pattern over northwestern and southern India**, while a **progressive cooling phase over northeastern and southwest regions** of the country.

The study found **three prominent heatwave prone regions: Northwestern, Central, and South-central India**, with the highest being in **west Madhya Pradesh** (0.80 events/year).

The study has also found a **significant decrease in heat waves over the eastern region**, that is Gangetic West Bengal (-0.13 events/year).

The study has also found severe heatwave events have shown a “southward expansion and a spatial surge during the decades of 2001–2010 and 2010–2016”. The **increase in heatwaves in Karnataka and Tamil Nadu** are particularly significant and will increase in the future.

### **What are the reasons behind the increasing frequency of Heat Waves?**

**Greenhouse Gas Emissions:** The primary driver is rising greenhouse gas emissions and the consequent change in the entire climate system. Due to enhanced global warming, scientists expect greater occurrence of heat waves which would have a more significant impact on Arctic and Antarctic ecosystems.

**Erratic Nature of Monsoon:** Many experts have deduced that rising instances of unusually long dry phases during Monsoons mean that soil moisture drops to a remarkably low level. This reinforces the heat waves.

**Urbanization:** The urban centres are full of concrete structures that **enhance the occurrence of heat waves and create an urban heat island effect**. The materials used to build cities like asphalt, concrete, bricks and other supplies are very dense in their composition. Further the darker colors used to paint the buildings also absorb and retain short-wave radiation from the sun.

Similarly, the configuration of buildings in cities also results in heat waves. When big buildings are amassed along a waterway, like in Mumbai and other coastal cities, the wind coming off the waterway can get blocked. Also, when buildings are placed close together, they reduce the convective movement of air which makes it to stagnate and heat.

**Demand for Air Conditioning:** With a rise in temperature and an enhancement of per capita income of masses, a rise in installation and usage of air conditioners is witnessed in residential and commercial spaces. This provides temporary cooling inside but enhances the outside temperature thereby increasing occurrence of heat waves.

### What are the impacts of Heat Waves?

**Human Health:** The 2015 heat wave caused a massive loss of life in India, around 2,500 deaths by various estimates. Excessive Heat impacts peoples' quality of life, harms those who suffer from respiratory and cardiovascular conditions and exacerbates asthma in children, affecting their ability to develop in a healthy way.

**Economic Loss:** An ILO study says that at at 34°C, workers can lose up to 50% of their work capacity. Currently, US\$ 41 trillion in GDP is at risk from heat stress globally. By 2030, heat productivity loss could equal 80 million full-time jobs and US\$ 2,400 billion, impacting tropical countries like India the most.

Loss of labor productivity would impact **agriculture, construction, fisheries, forestry;** sectors which are primarily outdoor and demand heavy effort.

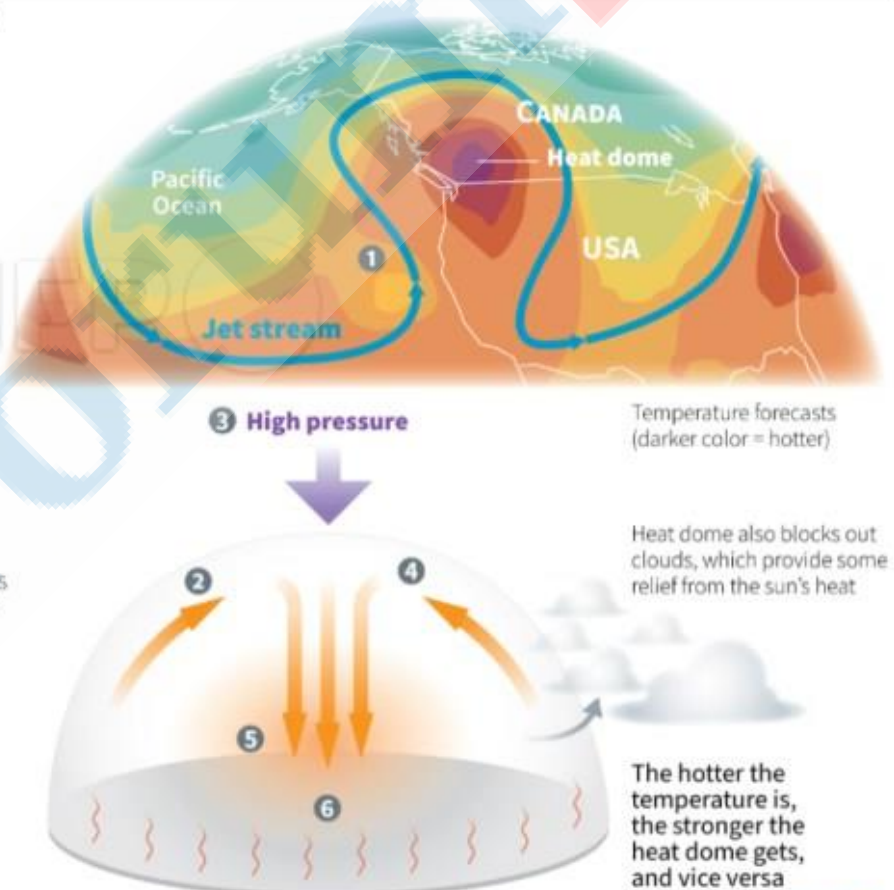
**Creation of Heat Domes:** Some scientists believe that there exists a positive correlation between rising temperatures and creation of heat domes. A Heat Dome is created when an area of high pressure stays over the same area for days or even weeks, trapping very warm air underneath – rather like a lid on a pot.

When the heat dome phenomenon kicks in – railway tracks buckle, electricity lines melt and roadways crack.

### The 'heat dome'

Occurs when the atmosphere traps hot ocean air like a lid or cap

- 1 In summer, the **jet stream** (which moves the air) shifts northward
- 2 **Hot and stagnant air expands** upwards
- 3 Strong and **high-pressure** atmospheric conditions combine with influences from La Nina act like a dome or cap
- 4 In a process known as **convection**, hot air attempts to escape but high pressure pushes it back down
- 5 Under the dome, the air sinks and **compresses**, releasing more heat
- 6 As winds move the hot air east, the jet stream traps the air where it sinks, resulting in **heat waves**



Source: NOAA/US/Canada medias, experts

AFP

Source: AFP



**Cascading Extremes:** A hot and dry weather extreme causes more evaporation from plants and soil which means a more rapid drying-out of the surface. A dry surface emits more heat and increases temperatures in the atmosphere. So, a heatwave can bring 'cascading extremes', triggering the next damaging weather phenomenon like a drought.

**Food Security:** The rise in heat waves will increase probability of droughts, decrease labor productivity and enhance demand of water in a scenario of decreasing groundwater levels. All this would brutally impact agriculture production and deter food security.

### What are the future projections for India?

Global warming is going to exacerbate the situation.

In India specifically, there is the **possibility of amplifying impacts associated with transitional climate zones** that change from the aridity of Rajasthan to the more humid east. These zones are **very sensitive to climatic changes** — these areas go very green in the event of good rain and turn extremely brown when facing dry heat. This would mean greater loss of green cover in the transition zones.

So, India will see an increase in temperature in general and witness a greater intensity due to its peculiar climatic zones.

### What should be done?

**First**, there is a need to **acknowledge the fact that heat waves disproportionately impact the poor, diseased and old people**. Thus focusing on these groups to ensure that they are getting enough hydration and ventilation can help in reducing the impact of heat waves.

**Second**, the masses should be **encouraged to adopt more energy efficient solutions** like using desert coolers in place of air conditioners in dry areas. For this, collaboration with environmental NGOs like Greenpeace can be extremely helpful.

**Third**, production of energy should be done using **clean and renewable resources** as the thermal and fossil based production releases a significant amount of greenhouse gasses. Proper implementation of National Solar Mission, National Wind energy policy etc. initiatives are desired for this.

**Fourth**, the nations should **focus on creating more and more green spaces** as they are a panacea for heat waves. The UN noted that investing US\$ 100 million in street trees globally can bring 77 million people a 1°C temperature reduction. Restoring Seoul's Cheonggyecheon stream lowered the temperature by 5.9°C.

**Fifth**, while renewable energy generation must increase, **the nations should also focus on smaller mitigation measures** like air vents below roofs, painting surfaces albedo or pale shades and heat-sensitive window placements on buildings.

**Sixth**, the government should also take **proactive steps for the workers** who would be facing productivity loss. This involves giving them protective gear to wear in order to lower heat exposure and allowing regular rest and water breaks during the day.

### Conclusion

The UNEP data show humans face 220 million more heatwave exposures now than in 1986. The situation is alarming and going to get worse in future. Countries can tackle the menace of heat waves only when they collaborate and cooperate on climate change. The rising frequency and intensity of heat waves is a reminder to the world that proactive and not reactive measures are needed immediately.

Source: [The Times of India](#), [The Times of India](#), [The Times of India](#), [The Times of India](#).

## India's Exports Reach US\$ 400 billion: Reasons, Challenges and Way Ahead – Explained, pointwise

### Introduction

The value of India's exports in the FY2021-22 hit \$400 billion in March 2022 which is the highest till date and is expected to reach US\$ 410 billion by the end of the month. It adds another feather in the cap of the Indian Economy and shows its potential to serve the global market. Some experts have lauded this achievement while others have expressed caution that this growth is a result of an unmet demand that was accumulating during the pandemic. Nevertheless, crossing the threshold of US\$ 400 billion is significant achievement.

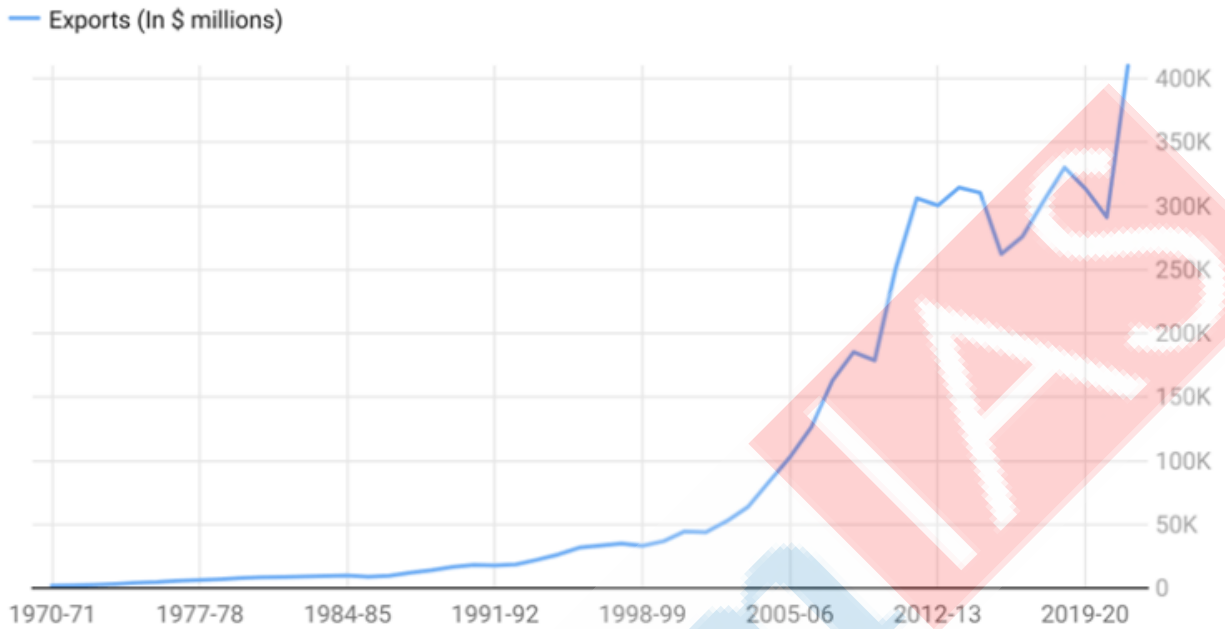
### What is the current status of India's Exports?

According to data from the Reserve Bank of India, outbound merchandise trade had clocked US\$ 303.5 billion in 2017-18, US\$ 330.1 billion in 2018-19 before slipping to US\$ 313.4 billion in 2019-20. The numbers in 2019-20 were slightly dented due to the harsh national lockdowns imposed in the last week of that financial year. The exports fell to US\$ 292 billion in FY2020-21 due to the pandemic. However, a swift recovery was witnessed in FY2021-22, with exports **crossing US\$ 400 billion** in March 2022.

Exports have registered a 37% increase compared to the previous fiscal and 21% over the previous record high of exports of US\$ 330 billion set in FY2018-19. Engineering exports have jumped 46.5% to cross US\$ 100 billion for the first time. Chemicals, cotton yarn, handloom products, and the apparel industry have also done well.

India had significantly boosted exports to key trading partners with outbound shipments to the UAE increasing by 65% during the fiscal and exports to the US increasing by 46%.

## India's goods exports soar in value terms



Data for 2021-22 is an estimate

Chart: Udit Misra • Source: RBI, Express Research • Created with Datawrapper



Source: Indian Express

### What are the reasons behind the surge in Exports?

**Rise in Prices:** Higher prices of commodities and oil helped drive up the value of exports, with petroleum products exports jumping over 141%.

**Diversification in global economy:** Many countries shifted their global procurement preferences to diversify their dependence on China following the outbreak of the COVID-19 virus e.g., Australia, which is in the midst of a shrill trade battle with China, has made way for India, taking India's exports to Australia up 94% so far this year.

**Unmet Global Demand:** Another reason for such a huge rise could be the pent-up global demand that was unmet during major waves of the COVID-19 pandemic.

**Monetary Policies of countries:** Expansionary monetary policy by developed economies in response to the economic impact of the pandemic has also boosted demand for Indian exports.

### What is the significance of rising exports?

**Resilience Capabilities:** India has managed to achieve its export target despite supply disruptions due to the pandemic, the challenging shortages of shipping containers and surging freight rates.

**Huge Growth Potential:** The rise in exports shows the huge magnitude of growth that India can generate with the right vision and inputs. The ~40% growth in FY2021-22 compared to 2020-21 would be India's fastest export growth rate since 2009-10.

## Annual growth rate of India's goods exports



2021-22 is an estimate

Chart: Udit Misra • Source: RBI • Created with Datawrapper

EXPRESS  
explained.

Source: Indian Express

Further, many goods like auto components, motor vehicles, cereal preparations, buffalo meat, rice etc. saw increases in overall export volumes despite stagnant or declining commodity prices.

**Atmanirbhar Bharat:** A surge in export shows India's rising might in manufacturing of goods thereby moving closer to the vision of *Atmanirbhar Bharat* and achieving self reliance.

**Attracting Foreign Investment:** Rising exports signify the potential of a nation to serve the global market. This capability attracts a lot of foreign investment and helps in surging a nation's foreign exchange reserves e.g., India's export potential has played a pivotal role in creating the current corpus of US\$ 620 billion dollar forex reserves.

**Target Completion:** The FY2021-22 reflects the first time in several years that the country has met its exports target. In the last few years, India was not able to achieve its intended target but this scenario has been altered in 2021-22.

### What steps have been taken to promote exports?

**Foreign Trade Policy 2015-20:** It provides a framework for increasing exports of goods and services as well as generation of employment and increasing value addition in the country, keeping in mind the vision of 'Make in India'.

**Remission of Duties and Taxes on Export Products (RoDTEP) Scheme:** It is a new scheme that is applicable with effect from January 1st, 2021, formed to replace the existing MEIS (Merchandise Exports from India Scheme). The scheme will ensure that the exporters receive the refunds on the embedded taxes and duties previously non-recoverable. Mandi tax, VAT, Coal cess, Central Excise duty on fuel etc. will now be refunded under this particular scheme.



**Niryat Bandhu Scheme:** It was launched with an objective to reach out to the new and potential exporters including exporters from Micro, Small & Medium Enterprises (MSMEs). It aimed to mentor them through orientation programmes, counseling sessions, individual facilitation, etc., on various aspects of foreign trade.

**Common Digital Platform for Certificate of Origin:** It has been launched to facilitate trade and increase Free Trade Agreement (FTA) utilization by exporters.

**Districts as Export Hubs:** It aims at identifying products with export potential in each district, addressing bottlenecks for exporting these products and supporting local exporters/manufacturers to generate employment in the district.

**Read More:** [Government approves continuation of the National Export Insurance Account \(NEIA\) scheme](#)

### What are some of the concerns that need to be addressed?

**Competition from Neighbors:** India hopes to consolidate the gains and establish its credentials as a credible alternative to China. However, it could face stiff competition in some sectors from Asian peers such as Vietnam and Bangladesh especially in the labor intensive sectors e.g., Bangladesh poses significant competition in the Jute Textile sector.

**Russia-Ukraine Crisis:** The prolongation of the crisis will keep on driving the oil prices that may enhance cost of production in India which would in turn enhance the price of exporters. This rise in export price may reduce demand for Indian products and make them uncompetitive. The crisis has also resulted in **high shipping rates, container shortages and re-alignment of trade routes around the Black Sea** that has enhanced the hardships of Indian Exporters.

**Monetary Tightening:** As the situation of Pandemic normalizes, the developed world would do monetary tightening by raising interest rates. This may suck out dollars from emerging markets and create a financial crunch for companies.

**Inward Looking stance of Nations:** The COVID-19 pandemic has induced an inward-looking shift in nations. They are now focusing on enhancing domestic production and reducing the reliance on imports. This would eventually hamper Indian exports.

**Delays in Governance:** The red tapism and unenthusiastic attitude of bureaucrats creates unnecessary delays which impacts exporting potential of India. e.g., a parliamentary committee has urged the government to include Special Economic Zones and sectors such as pharma, steel, and chemicals under the Remission of Duties and Taxes on Export Products (RoDTEP) Scheme. This finally kicked off last year after a significant delay.

**Exports as share of GDP:** While the exports have achieved a new high, their proportion as a share of GDP still has a scope of lot of improvement. In FY2021-22, exports are ~14% of the GDP, below the high achieved in 2012-13 at 17%. A 17% share of exports today would have meant exports worth US\$ 485 billion. Exports have 19% share in the Chinese economy (China's highest share was ~36% in 2006)

## But, as a percentage of GDP, they are far below the peak

— Exports as % of GDP



Data for 2021-22 is an estimate

Chart: Udit Misra • Source: RBI, Express Research • Created with Datawrapper



Source: Indian Express

**Read More:** [Increasing exports in India and challenges in exports- Explained, pointwise](#)

### What lies ahead?

**First**, many economists expect the rupee to weaken over 2022-23, which in turn could be a **minor perk** for exporters.

**Second**, India should **grab on opportunities that are created by the Russia-Ukraine crisis** e.g., experts believe that the crisis may create opportunities for Indian farm produce exports, especially for crops like wheat and maize.

**Third**, a swift conclusion of **Free Trade Agreement pacts** being negotiated with countries like the U.K., Australia and Canada could create easier market access in these large markets.

**Fourth**, there should be a **timely review of India's Foreign trade policy** in order to provide a better environment for doing exports. Exporters await a long-overdue revision of the Foreign Trade Policy for 2015-20, which has now been extended into the first few months of 2022-23.

**Fifth**, apart from focusing on boosting exports, **focus should also be on reducing imports** in order to stabilize the rising trade deficit. India's imports have shot up to record levels and could end up ~US\$ 600 billion compared to 2020-21's import figure of \$393.6 billion. The trade deficit for the year could be around US\$ 190 billion, sharply higher than the US\$ 102 billion recorded in the pandemic year.

**Conclusion**

The achievement of US\$ 400 billion of exports is a major milestone for the Indian economy. However, many experts have rightly opined to be cautious. According to UNCTAD estimates, the positive trend for international trade in 2021 (calendar year) was largely the result of **increases in commodity prices, subsiding pandemic restrictions** and a **strong recovery in demand** due to economic stimulus packages. As these trends are likely to abate, international trade trends are expected to normalize during 2022. It is during this time the true picture might emerge and analysts will be able to undertake better analysis.

**Source:** [The Hindu](#), [Indian Express](#), [Indian Express](#), [PIB](#)

**5th BIMSTEC Summit – Explained, pointwise****Introduction**

The 5th Bay of Bengal Multi Sectoral Technical and Economic Cooperation (BIMSTEC) Summit would occur on 30th March 2022 in a virtual mode and hosted by Sri Lanka, the current BIMSTEC chair. To prepare for the Summit, meetings of BIMSTEC Senior Officials (SOM) took place on 28 March 2022 followed by meetings of the BIMSTEC Foreign Ministers (BMM) on 29 March 2022. The summit on March 30 will be a completely virtual affair, largely because of concerns among member states about the situation in Myanmar following last year's military coup. Some member states, including India, were reluctant to share a platform with Myanmar's junta, which has shown no signs of moving the country back towards democracy.

**What is BIMSTEC?**

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional organization that was established on 06 June 1997 with the signing of the Bangkok Declaration. Initially known as BIST-EC (Bangladesh-India-Sri Lanka-Thailand Economic Cooperation), the organization is now known as BIMSTEC.

It comprises seven Member States with the admission of Myanmar on 22 December 1997, and Bhutan and Nepal in February 2004. It is headquartered at Dhaka, Bangladesh.

It not only connects South and Southeast Asia, but also the ecologies of the Great Himalayas and the Bay of Bengal. It aims to create an enabling environment for economic development; accelerate social progress and promote collaboration on matters of common interest in the region.

**What are the expectations from the current summit?**

**BIMSTEC Charter:** The adoption of rules, a framework and long-term goals is expected to streamline the operations of BIMSTEC and allow the organization to finally deliver on its potential.

It will help BIMSTEC to become a dynamic and productive regional organization through meaningful cooperation between the members.

**BIMSTEC Master Plan for Transport Connectivity:** It is a vision for implementing multimodal connectivity projects for greater regional integration. It will seek to combine shipping routes with road transport for the movement of people and cargo.

**What have been the achievements of BIMSTEC?**

**BIMSTEC Centre for Weather and Climate:** The Memorandum of Association (MoA) on the establishment of this centre was signed in Nay Pyi Taw, Myanmar on 4 March 2014 at the Third BIMSTEC Summit. Currently the BIMSTEC Centre for Weather and Climate Change functions

from the National Centre for Medium Range Weather Forecasting (NCMRWF), Noida, Uttar Pradesh, India.

**BIMSTEC Energy Centre (BEC):** The First BIMSTEC Energy Ministers Conference held on 04 October 2005, agreed to the setting up of a BIMSTEC Energy Centre (BEC). It aims to share experience in reforms, restructuring, regulation and best practice in the energy sector.

The **BIMSTEC Permanent Secretariat** was opened in 2014 at Dhaka. It helps in better management of regional issues.

**BIMSTEC Permanent Working Committee (BPWC)** to deal with administrative and financial matters of the Secretariat was set up post the 4th Kathmandu summit of 2018.

**BIMSTEC convention on cooperation in combating international terrorism, transnational organised crime and illicit drug trafficking** has come into force in March 2021. It encourages data sharing and intelligence gathering on criminal activities.

### What is the significance of BIMSTEC?

**Alternative to SAARC:** South Asian Association for Regional Cooperation (Saarc) has largely become defunct because of differences between New Delhi and Islamabad. Further the operability of the grouping has again come under peril considering the declining security situation in Afghanistan since the Taliban takeover.

**Strategic Location:** The Bay region is a key transit route between the Indian and the Pacific Oceans. Therefore BIMSTEC as a grouping can help in ensuring freedom of navigation in the waters. It can also help in harnessing and sharing the Bay's natural wealth.

**Combating the web of uncertainties:** The institution can help member states tackle future uncertainties that will arise due to climate change, COVID – 19 pandemic and Russia-Ukraine conflict.

**Tackling Security Challenges:** Members of the grouping face several traditional and non-traditional security challenges that can be duly addressed with enhanced cooperation.

In this regard, NSAs of members have met thrice since 2017 and are collaborating on counter-terrorism, intelligence-sharing, coastal security, cybersecurity etc.

**Development of North East:** BIMSTEC can boost the development of the northeast region by providing greater interaction with Bangladesh and Myanmar. For instance, the master plan of connectivity includes the India-Myanmar-Thailand trilateral highway and Kolkata-Siliguri-Guwahati-Imphal link.

**Better cooperation with ASEAN:** India has already come out of RCEP (Regional Comprehensive Economic Partnership) agreement that may hinder its trade potential. Therefore a more robust cooperation with Thailand and Myanmar can help in resolving India – ASEAN differences and ensure better implementation of 'Act East Policy'.

### What are the challenges faced by BIMSTEC?

**Stalemate on Agreements:** The Free Trade Agreement (FTA), coastal shipping agreement and motor vehicles agreement have undergone numerous negotiations but no consensus is developed over them.

**Priority to Bilateralism:** The focus remains primarily on enhancing bilateral ties, with multilateralism yet to gain ground despite common ecological concerns and a shared past.



**Big brother attitude:** Allegations are made on India for playing a dominant role in the organization and neglecting the agendas of small states.

**Irregularity in working:** The summits are not held on regular intervals and slow pace is observed in working. For instance, it took almost 17 years to establish a permanent secretariat.

**Preference to other organizations:** Countries like Myanmar and Thailand show more enthusiasm towards ASEAN and neglects the vision of BIMSTEC.

**Resource Deficit:** Lack of adequate financial and manpower resources is impairing the performance of the body. Although, India is the largest contributor and contributes annually about 32% of the budget.

### What lies ahead?

**First**, it is expected that the BIMSTEC charter would be adopted by member states on 30th March, 2022. However, the countries must not rest on this achievement and instead move on to 'next steps' that can be taken to further strengthen BIMSTEC.

**Second**, the members must accelerate our efforts to boost intra BIMSTEC trade and economic ties.

They should focus on developing a network of regional supply chains that will reduce our vulnerability to external shocks and give their economies greater resilience and transparency.

**Third**, India must encourage other member states to consider joining the Coalition for Disaster Resilient Infrastructure (CDRI). This will enhance disaster cooperation as all the BIMSTEC members live in one of the most disaster prone regions of the world.

**Fourth**, the members states cannot ignore the challenges that transnational crime, terrorism, violent extremism or indeed new challenges such as cyber-attacks, pose to them.

Considering this, they need to put in place the remaining elements of the legal architecture that will enable their law enforcement agencies to collaborate more closely and more effectively.

**Fifth**, the group should move forward by doing '**institutional hedging**'. This means focus should be on developing collective soft as well as hard power for the group. Thereby protecting individual interests and shaping up a regional order that works for all the members involved.

**Sixth**, India should project itself as a compatriot and an equal partner to other BIMSTEC member-countries. This will help reduce its trust deficit and ensure better integration in the region.

### Conclusion

BIMSTEC over the years has emerged as a promising sub-regional grouping with growing strategic and economic interests of the member states as well as of the international community in the Bay of Bengal region. India remains committed to further building the momentum of regional cooperation under the BIMSTEC framework and make the organization stronger, vibrant, more effective and result-oriented.

**Sources:** [Hindustan Times](#), [Ministry of External Affairs](#), [Indian Express](#)

## Criminal Procedure (Identification) Bill: Features, Benefits and Concerns – Explained, pointwise

### Introduction

The Criminal Procedure (Identification) Bill, 2022 was introduced in the Lok Sabha on March 28, 2022. The Bill allows the police to collect, store and analyze physical and biological samples of certain persons. The government has come up with the new Bill to aid the investigation process and improve the law and order situation of the country. However many experts have expressed concerns over the Bill, particularly its conflict with the right to privacy and expansion of state's surveillance powers.

### What is the background?

The Bill **replaces the Identification of Prisoners Act, 1920**. The Act authorized the collection of certain identifiable information about specified persons (such as convicts) for investigation of crime. The Bill expands the definition of persons whose details can be taken as well as the ambit of such details. It authorizes the National Crime Records Bureau to collect, store, and preserve these details.

### How is the Criminal Procedure (Identification) Bill different from the earlier act?

**Coverage:** According to the Identification of Prisoners Act, 1920, certain persons (like those convicted of offenses punishable by minimum 1 year of rigorous imprisonment) were required to give photographs and specified details.

The Bill widens the ambit of such persons to include **all convicts** (convicted of an offense punishable under any law for the time being in force), **arrested persons**, as well as **persons detained under any preventive detention law**.

**Quantum of Details:** The Identification of Prisoners Act permits the collection of photographs and specified details about convicts and other persons including finger impressions and footprint impressions. The Bill expands the list of details that can be collected. It will now include: **(a)** Palm-print impressions; **(b)** Iris and retina scans; **(c)** Behavioral attributes such as signature and handwriting; **(d)** Other physical and biological samples such as blood, semen, hair samples, and swabs, and their analysis.

**Persons authorized to collect details:** Under the Act, details may be collected by police officers who: **(a)** Are in charge of a police station; **(b)** Conduct investigation under the CrPC, or **(c)** Are at least at the rank of a Sub-Inspector.

The Bill permits the collection of details about specified persons by either **a prison officer** (not below the rank of Head Warder), or **a police officer** (in charge of a police station, or at least at the rank of a Head Constable).

**Power to make Rules:** The Identification of Prisoners Act vested rule-making power only in the State government. The Bill extends this power to the Union government as well. The Union or State government may make rules on various matters, including: **(a)** the manner of collecting details, and **(b)** the manner of collection, storage, preservation, destruction, dissemination, and disposal of details by NCRB.

### What are the other key features of the Criminal Procedure (Identification) Bill?

**Retention of details:** The Bill requires the **details collected to be retained in digital or electronic form for 75 years** from the date of collection. The record may be destroyed in case of persons who: **(a)** Have not been previously convicted; **(b)** Are released without trial, discharged,

or acquitted by the Court, after exhausting all legal remedies. A Court or a Magistrate may direct the retention of details in the case of such persons after recording reasons in writing.

**Resistance to giving details:** As per the Bill, resistance or refusal to give details will be considered an offense under the Indian Penal Code, 1860. In such cases, police officers or prison officers may collect details in the manner prescribed under Rules made by the State government or the Union government. The furnishing of details is mandatory in case of crimes against women and children or offences punishable with a minimum 7 years of imprisonment.

**Role of the National Crime Records Bureau (NCRB):** The Bill empowers NCRB to collect the details about the persons covered under the Bill from State governments, Union Territory (UT) administrations, or other law enforcement agencies. Other functions of NCRB under the Bill include: **(a)** Storing and destroying the details about specified persons at the national level; **(b)** Processing the details with relevant criminal records; **(c)** Disseminating the details to law enforcement agencies.

### What is the significance of the new Bill ?

**Aiding Investigative agencies:** It will enable the use of modern techniques to capture and record appropriate information. This would aid the investigative agencies, resulting in faster completion of trials.

**Maintenance of Law and Order:** Faster adjudication of cases and certainty of punishment will enhance the law and order situation in the country.

**Voluntary Nature:** Arrested persons will not be obliged to give their biological samples unless they have committed an offense against a woman or a child, or an offense punishable with a minimum of seven years of imprisonment.

**Cooperative Federalism:** The Bill extends rule making power in the hands of the Union government as well, while earlier it was only with the State government. This will help in strengthening cooperative federalism between the Union and states.

**Flexibility:** Apart from NCRB, State governments and UT administrations may notify agencies to collect, preserve and share details about specified persons in their respective jurisdictions.

What are the concerns associated with the Criminal Procedure (Identification) Bill?

**Lack of Clarity:** Several provisions are not defined in the Bill. For instance, the statement of objects says it provides for collection of measurements for “convicts and other persons” but the expression “other persons” is not defined. It does include ‘those accused of certain offenses’, but it can be argued that the police could use the law to expand it to others.

**Excessive State Surveillance:** The proposed Bill brings a legal framework for police surveillance using technology, but experts fear that it could be expanded or misused.

**Violation of Fundamental Rights:** Some experts have argued that it violates fundamental rights of citizens including the right to privacy. The Bill states “increasing the conviction rate” as one of its aims. However experts believe it would not pass the 3 three-fold test of K.S Puttaswamy v Union of India case, which recognised the right to privacy as a fundamental right. The 3 parameters are **(a)** The activity must be backed by a law; **(b)** The State must have a legitimate interest in the subject to bring such a law that collides with fundamental rights; **(c)** The State’s infringement must be proportional to its aim.

The proposed law will also be debated **against Article 20(3)** of the Constitution, which is a fundamental right that guarantees the right against self-incrimination. It states that “no person accused of any offense shall be compelled to be a witness against himself.”

**What lies ahead?**

**First**, the modalities of collection, storage or use of data will be prescribed in rules by the government and are not outlined in the Bill. This should be duly formulated and put in public domain for discussion and deliberation.

**Second**, given that policing is a state subject, it remains to be seen if any States refuse to share the information with NCRB. If this happens, then the objective of the new Bill would not be achieved.

**Third**, the Bill could be challenged in courts and hence the government should be **prepared to satisfy the 3 fold privacy test**.

**Fourth**, the government should also **formulate data protection law** as recommended by the B.N Srikrishna Committee. This will reduce privacy breaches and provide more clarity on the right to be forgotten. It is necessary as the Bill also brings to focus rights of prisoners and the right to be forgotten since biometric data can be stored for 75 years.

**Conclusion**

The Statement of Objects and Reasons of the Bill says that new “measurement” techniques being used in advanced countries are giving credible and reliable results. However, it can be considered useful in India only when it is in synchronization with the fundamental rights of citizens.

**Source:** [Indian Express](#), [Indian Express](#), [The Hindu](#), [Times of India](#)

**The Assam-Meghalaya Boundary Dispute Resolution – Explained, pointwise****Introduction**

Two months after signing a draft resolution on January 29, Assam and Meghalaya partially resolved a 50-year-old dispute along their 884.9 km boundary on 29th March 2022. It was facilitated by the Union Home Minister who urged the States to resolve their boundary disputes by August 15, 2022, when the country celebrates 75 years of Independence. The agreement is expected to pave the way for resolving disputes in the remaining sectors of the Assam-Meghalaya boundary and similar areas of difference between Assam and three other northeastern States.

**What is the background of the dispute?**

Meghalaya was carved out of Assam as an autonomous State in 1972. The creation of the new State was based on the Assam Reorganization (Meghalaya) Act of 1969. However the Meghalaya government refused to accept this Act as areas of the present-day East Jaintia Hills, Ri-Bhoi and West Khasi Hills districts of Meghalaya were transferred to the Karbi Anglong, Kamrup (metro) and Kamrup districts of Assam.

Meghalaya contested these transfers after statehood, claiming that **they belonged to its tribal chieftains**. Assam said the Government of Meghalaya could neither provide documents nor archival materials to prove its claim over these areas. After claims and counter-claims, the dispute was **narrowed down to 12 sectors** on the basis of an official claim by Meghalaya in 2011.

**What steps have been taken by Assam and Meghalaya to solve the dispute?**

**1983:** First serious attempt to solve the boundary issue took place with the formation of a **joint official committee**. It suggested that the Survey of India should re-delineate the boundary with the cooperation of both the States towards settling the dispute. However there was no follow-up action.



**1985:** An independent panel headed by Justice Y.V. Chandrachud was formed over the issue and submitted its report in 1987. However, the report was rejected by the Meghalaya Government which considered the report to be Pro-Assam.

**1991:** Following more disputes and resultant violence, the two governments agreed in January 1991 to jointly demarcate the border with the help of the Survey of India. About 100 km of the border was demarcated by the end of 1991, but Meghalaya found the exercise unconstitutional and refused to cooperate.

**2011:** The Meghalaya Assembly passed a resolution for central intervention and the constitution of a boundary commission. The Assam Assembly retaliated with a resolution to oppose the move. But the Centre made the two governments appoint nodal officers to discuss the boundary dispute to minimize the points of differences.

**2019:** The Meghalaya government petitioned the Supreme Court to direct the Centre to settle the dispute. However, the petition was dismissed by the Court.

**2021:** In January 2021, Union Home Minister urged all the north-eastern States to resolve their boundary disputes by August 15, 2022, when the country celebrates 75 years of Independence.

In June 2021, the **two States decided to resume talks at the CM level and adopt a “give-and-take” policy** to settle the disputes once and for all.

Of the 12 disputed sectors, six ‘less complicated’ areas — Tarabari, Gizang, Hahim, Boklapara, Khanapara-Pilingkata and Ratacherra were chosen for resolving in the first phase. Both States formed three regional committees, one each for a district affected by the disputed sectors.

Why have the States been unable to resolve the boundary disputes in decades?

**Colonial Problem:** The fault lines created by the British in boundary demarcation are still unaddressed. They created boundaries according to their commercial interests. In the process, sensitivities of local communities regarding land were either ignored or suppressed.

**Political Milieu:** There has been a proliferation of political conversations that target migrants and ‘outsiders’. This shrinks the space and scope for fluid borders and fixes the identities of people as per the region.

**Economic relevance:** Economic competition for land coupled with a lack of non-farm jobs across the Northeast region, is also enhancing bitterness among states.

**Half Hearted attempts by the governments:** The sustained tensions at border points is a result of half hearted attempts by the governments. They have deployed paramilitary forces but have not been able to truly develop the region.

### **What has been agreed in the settlement?**

The regional committees acted based on five principles: **(a)** Historical facts of a disputed sector; **(b)** Ethnicity; **(c)** Administrative convenience; **(d)** Willingness of people; **(e)** Contiguity of land preferably with natural boundaries such as rivers, streams and rocks.

On 29th January 2022, the two governments had signed a draft resolution prepared on the basis of the recommendations of these regional panels. This paved the way for the March 29 closure of the six disputed sectors.

According to the partial boundary deal, Assam will get 18.51 sq. km of the 36.79 sq. km disputed area while Meghalaya will get the remaining 18.28 sq. km.

**What is the significance of the Assam Meghalaya Agreement?**

**Future Dispute resolution:** It will help in solving the dispute in the other six disputed sectors — Langpih, Borduar, Nongwah, Matamur, Deshdemoreah Block I and Block II, and Khanduli. Further, it could be a guiding light for solving Assam's dispute with other states like Mizoram, Nagaland, Arunachal Pradesh etc.

**Reduction in Violence:** Certainty over boundaries would reduce border clashes between the masses and save invaluable human lives. For instance, the July 2021 Assam and Mizoram police force clash resulted in the death of six Assamese policemen.

**Development of the North East:** It will help in better development of the region as peace would bring more projects and investments into the region.

**Foreign Policy Objectives:** It will help actualise India's Act East policy and also prevent an adversarial China from taking advantage of the fault lines in Northeastern region.

**What are the bottlenecks?**

**Lack of Clarity:** There is no clarity yet on the villages or uninhabited stretches that would be divided.

**Discontent in masses:** Some political parties and community-based groups in Meghalaya are unhappy about acceding any part of the disputed areas to Assam. Similarly there are groups in Assam who want full control over the disputed land.

**Fear of Displacement:** There is apprehension among the 'non-tribal' people about living in 'tribal' Meghalaya with 'no rights'. They fear they may have to shift their residence in the light of transfer of land.

**What lies ahead?**

**First**, the test of both the CMs would be to sell the agreement to their respective domestic constituencies, and ensure that the residents on the border villages are not alienated in the process.

**Second**, the two States must further leverage their political capital with the Centre and expeditiously solve the issue of the other six disputed areas.

**Third**, the Survey of India should be provided with all the financial, technical and human resources so as to ensure that delineation happens as per the Agreement.

**Conclusion**

Sectarian tribalism has been the bane of the North-eastern States, with underdevelopment acting as a catalyst in complicating knotty issues over land and other issues in the region. The Northeastern states must realize that they share a collective destiny. They should be sensitive to and accommodative of each other's interests so that the entire region can prosper. In this regard the Agreement between Assam and Meghalaya is a positive beginning. It should pave the way for peaceful settlement of other such disputes in the region.

**Source:** [The Hindu](#), [The Times of India](#), [Indian Express](#)