

● POLITY

● ECONOMICS

● TECHNOLOGY

● ECOLOGY

INTERNATIONAL RELATIONS

## Columbia locks down campus after anti-war protests escalate

**CONTEXT:** Student protesters occupied Hamilton Hall, the building at Columbia University on Tuesday morning, escalating tensions at the university hours after administrators began suspending students who refused to leave a 'Gaza Solidarity Encampment'.



Hamilton Hall was last occupied in 1968 amid protests against the Vietnam War. Columbia was the first institution struck by protests in support of the Palestinian cause, with students demanding that the school divest from investments that support weapons manufacturing and Israel amid the backdrop of the war on Gaza, in which more than 34,000 Palestinians have been killed.

SCIENCE AND TECHNOLOGY

## AstraZeneca submission over COVID vaccine nothing new, say doctors

**CONTEXT:** UK-based Pharma major AstraZeneca in a legal document submitted to the High Court in London in February for a group action being brought by 51 claimants, admitted that the vaccine developed with the University of Oxford to protect against COVID-19 may cause TTS in "very rare cases" of Thrombosis with Thrombocytopenia Syndrome (TTS), a rare side effect associated with blood clotting.



The Oxford–AstraZeneca COVID-19 vaccine is sold under the brand name Covishield in India. In India as an insert with the vaccine warning of potential adverse events was present since the time it was introduced for general public. Any adverse event associated with the vaccine would have occurred within 21 days to a month of the first dose. The consequences of TTS are potentially life-threatening including strokes, brain damage, and heart attacks.

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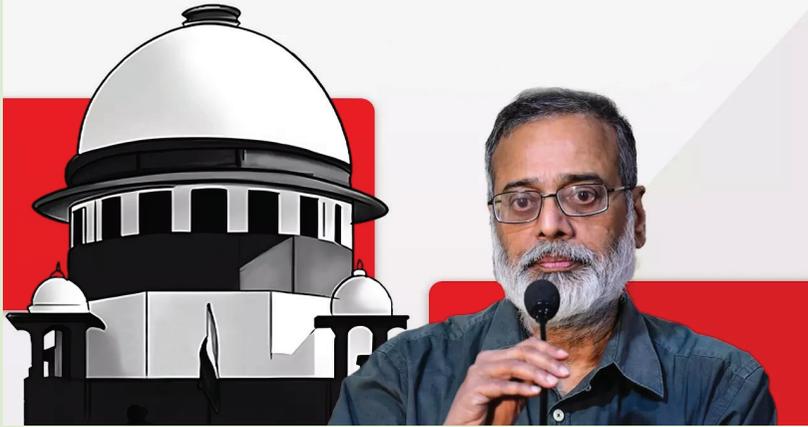


*"Education is the ability to listen to almost anything without losing your temper or your self-confidence." - Robert Frost*

**POLITY AND GOVERNANCE**

## SC asks if grounds for arrest were provided to NewsClick founder

**CONTEXT:** The Supreme Court on Tuesday cautioned Delhi Police that judicial orders remanding 74-year-old journalist and online portal NewsClick founder Prabir Purkayastha will crumble if his arrest turns out to be illegal.

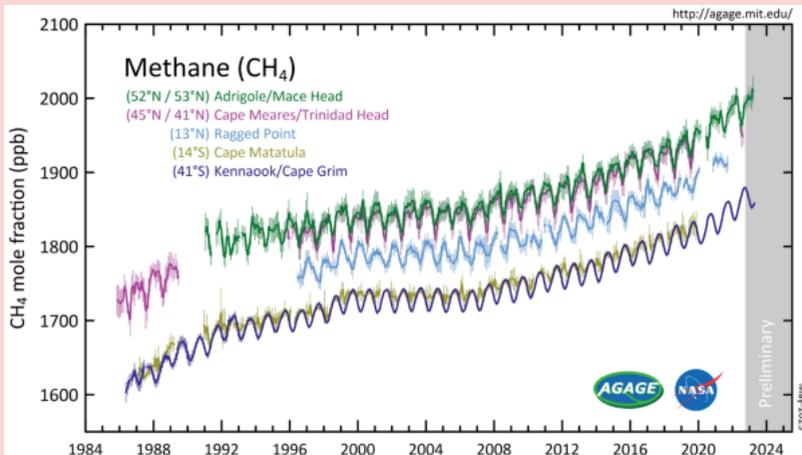


Mr. Purkayastha, who was charged under the Unlawful Activities Prevention Act, was represented by a legal aid lawyer. His own lawyer was not informed. The police had sent by WhatsApp the details of the arrest and remand to Mr. Purkayastha's lawyer after the order for his custody was passed.

**ECOLOGY AND ENVIRONMENT**

## Microbes, not fossil fuels, produced most new methane: study

**CONTEXT:** The methane concentration in atmosphere increased since 1990, stagnated briefly only to start increasing again around 2007 with recent estimates, the atmospheric concentration of methane today is three-times what it was 300 years ago.



### Evolving understanding

Methane is the second most abundant anthropogenic greenhouse gas after carbon dioxide (CO<sub>2</sub>) but it warms the planet more. Methane has a global warming potential 28-times greater than CO<sub>2</sub>, and even higher over shorter periods like

two decades. At the U.N. climate talks in 2021, member countries launched the 'Global Methane Pledge' to cut the gas's emissions and slow the planet's warming.

### The sources of methane

Both biogenic and thermogenic activities produce different isotopes of methane. Thermogenic methane is released when fossil fuels such as natural gas or oil are extracted from deep within the earth's crust. Biogenic methane comes from microbial action. Microbes have been the biggest sources of methane in the atmosphere, not the burning of fossil fuels. Methanogens – methane producing single-celled microorganisms, archaea distinct from bacteria and eukaryotes thrive in oxygen-deficient environments, such as the digestive tracts of animals, wetlands, rice paddies, landfills, and the sediments of lakes and oceans.

Methanogens play a crucial role in the global carbon cycle by converting organic matter into methane. While methane is a potent greenhouse gas, its production by methanogens is an essential part of natural ecosystems. But human activities like agriculture, dairy farming, and fossil fuel production have further increased methane emissions.

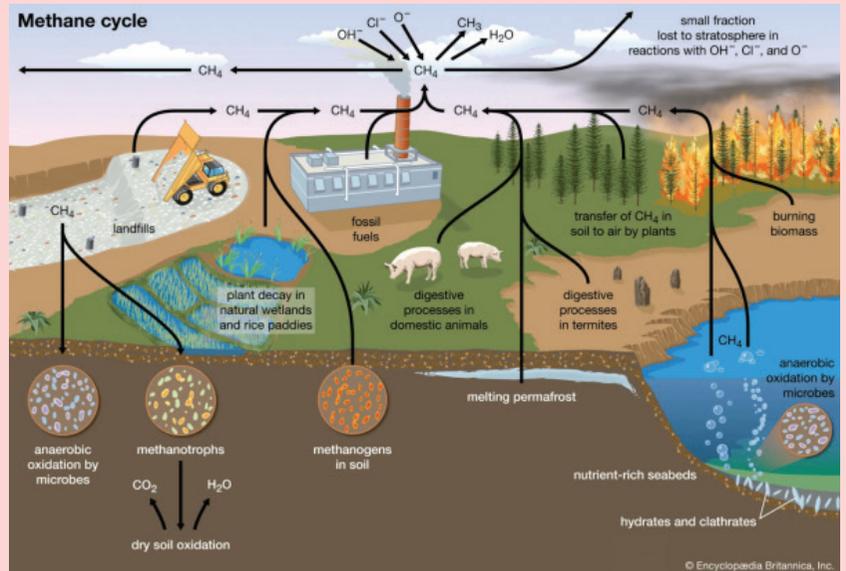
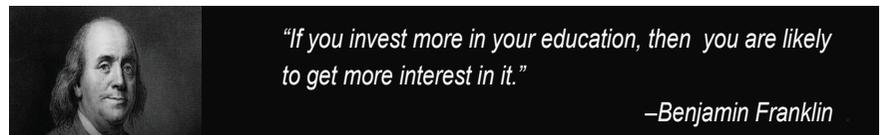


FIGURE: Schematic representation of methane cycle.



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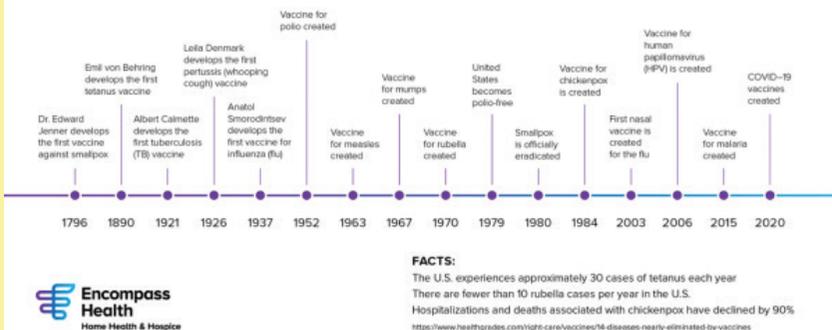
SCIENCE AND TECHNOLOGY

# Make EPI an ‘Essential Programme on Immunisation’

**CONTEXT:** The World Health Organization (WHO) launched the Expanded Programme on Immunization (EPI) in 1974 to leverage the then immunisation infrastructure and a trained workforce for smallpox virus to expand the benefit of available vaccines.

India launched the Expanded Programme on Immunization (EPI) in 1978, later renamed as the Universal Immunization Programme (UIP) in 1985. In 1974, there were vaccines to prevent six diseases, five decades later, there are vaccines against 13 diseases which are universally recommended; and vaccines against 17 additional diseases are recommended for a context-specific situation. India launched a pilot initiative of adult BCG vaccination as part of efforts to ‘end TB’ from India in late 2023. The COVID-19 vaccination of the adult population has made the public sensitized to the need for and the benefits of adult vaccination. There is research in progress to develop vaccines against nearly 125 pathogens — many would prevent diseases prevalent in low- and middle-income countries.

## Vaccination timeline

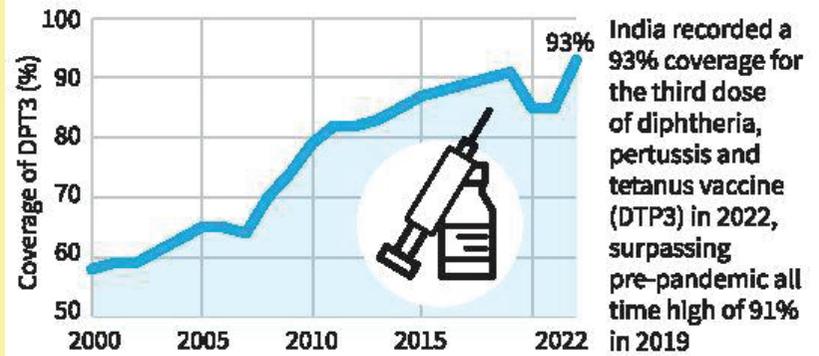


### A success story

The immunisation coverage DPT in low- and middle-income countries increased from around 5 % of children in the early 1970s to 84 % in 2022 at the global level. Smallpox has been eradicated, polio eliminated from all but two countries and many vaccines preventable diseases have nearly disappeared. In India, the coverage has increased every passing year and in 2019-21, 76 % of children received the recommended vaccines.

## All-time high

A look at DTP3 coverage rate over the years, according to WHO estimate of national immunization coverage in India



In nearly all low- and middle-income countries, including India, the immunisation programme remains a success among all government initiatives, nearly always with far greater coverage than any other health programme. The immunisation often remains the only health intervention in mixed health systems with both the public and private sector delivering services with greater utilisation from the government sector. In India, the share of the private sector in overall health services is nearly two thirds; however, nearly 85 % to 90 % of all vaccines are delivered from government facilities.

In early 2023, the UNICEF’s ‘The State of the World’s Children’ report revealed a concerning trend: for the first time in more than a decade, the childhood immunisation coverage had declined in 2021. In 2022, globally, an estimated 14.3 million children were zero dose (did not receive any recommended vaccine) while another 6.2 million children were partially immunised. Over the years, the vaccination coverage in India has increased, both nationally and State-wise. However, there are persisting inequities in coverage by geography, socio-economic strata and other parameters, which demand urgent interventions.

### From childhood focus to life course

Vaccines are highly cost-effective interventions, with every single dollar (or rupee) of expenditure on vaccination programmes ensuring a seven to 11-fold return. The National Technical Advisory Group on Immunization (NTAGI) recommended availability for vaccines for all age groups free at the government facilities. The recent announcement on HPV vaccines for teenage girls is expanding immunisation coverage in additional populations. The introduction of new vaccines in national programmes contributes to increased coverage of all existing vaccines. The Indian government needs to consider providing recommended vaccines for a wider section of adults and elderly population.

Professional associations of doctors — community medicine experts, family physicians and paediatricians should work to increase awareness about vaccines among adults and the elderly. Physicians treating patients with any disease should use the opportunity to make them aware of vaccines. Medical colleges and research institutions should generate evidence on the burden of diseases in the adult population in

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India.

This is a right opportunity to start a new journey of adult vaccination in India. In the 50 years of the EPI, it is time for another expansion of the programme with focus on zero dose children, addressing inequities in vaccine coverage and offering vaccines to adults and the elderly. It is time to make EPI an 'Essential Program on Immunization'.

**ECONOMICS AND DEVELOPMENT**

**Cost of meals rose by 71% in five years, salaries by just 37%**

**Food has become more expensive**

The tables are constructed based on data sourced from the Department for Consumer Affairs, National Horticulture Board, Periodic Labour Force Survey, and Report on District Level Estimates for the State of Maharashtra



^ Sunflower oil All figures in ₹ except those in Column A (grams)

**Table 1:** The table lists the weight of commodities required to prepare two thalis and its retail prices in ₹

Item	A: Grams needed for 2 thalis	B: Cost of a kg. (March 2024)	C: Cost (1 year ago)	D: Cost (5 years ago)	Buying price (March) (B*A/1000)	Buying price (1 year ago) (C*A/1000)	Buying price (5 years ago) (D*A/1000)
Rice	125	51.12	43.12	35.83	6.4	5.4	4.5
Atta(wheat)	250	42.74	41.1	30.03	10.7	10.3	7.5
Oil^	36.3	119.92	150.39	90.71	4.4	5.5	3.3
Tomato	100	28.28	20.78	25.56	2.8	2.1	2.6
Onion	100	26.01	22.04	14.3	2.6	2.2	1.4
Salt	12.8	23.43	23.39	16	0.3	0.3	0.2
Potato	300	28.65	25.07	22.55	8.6	7.5	6.8
Toor dal	125	160.99	119.94	74.23	20.1	15.0	9.3
Garlic	25	238.7	100.87	43.04	6.0	2.5	1.1
Green chilli	25	102.61	57.83	68.7	2.6	1.4	1.7
Ginger	7.5	163.04	80	86.09	1.2	0.6	0.6
Peas	60	76.52	46.96	37.83	4.6	2.8	2.3
Cabbage	250	36.09	34.35	20	9.0	8.6	5.0

**Table 2:** The table shows the cost of a thali in ₹ in March 2024, a year ago, and five years ago

Cost	All figures in ₹		
	As on March 2024	1 year ago	5 years ago
Cost of making two thalis	79.2	64.2	46.2
Cost of making one thali	39.6	32.1	23.1
Cost of making two thalis every day for a month	2,377.4	1,925.7	1,386.7

**Table 3:** Average daily wage of a casual labourer and the average salary of a regular salaried employee in urban Maharashtra

Average earnings in Maharashtra	All figures in ₹		
	As on March	1 year ago	5 years ago
Average wage earnings of a person per day from casual labour work other than public works in CWS*	364.93	328.24	218.35
Average salary earnings of a person during the preceding calendar month from regular wage/salaried employment in CWS*	23,549.45	21,810.82	17,189.56

\*CWS: Current Weekly Status provides a snapshot of a person's employment during a particular reference week

**Table 4:** The table shows the cost of making two thalis every day for a month as a share of monthly wages/salaries

	All figures in %		
	As on March	1 year ago	5 years ago
The cost of making two thalis every day for a month, when considered as a share of daily wage	21.72%	19.55%	21.15%
The cost of making two thalis every day for a month, when considered as a share of regular salary	10.10%	8.82%	8.06%

**ECONOMICS AND DEVELOPMENT****About the redistribution of wealth**

**CONTEXT:** BJP alleged of Congress plans to reintroduce inheritance tax laws that could affect even the poorer sections to counter poll promises of direct cash transfers of ₹1 lakh per annum to a woman from every poor family and holding a financial survey to address wealth distribution and inequality. The Supreme Court has formed a nine-judge Bench to interpret if material resources under Article 39(b) include private resources.

**Exceptions to fundamental rights**

Considering the inadequate resources with the government and to provide greater flexibility in acquiring land for public welfare, various amendments were carried out curtailing the right to property. Notable among them are exceptions under Articles 31A, 31B and 31C

Article	Amendment & year	Brief explanation
31A	1st amendment, 1951	Provided that laws made for acquisition of estates etc. shall not be void on the ground that it violated fundamental rights including right to property
31B	1st amendment, 1951	Made laws placed under the Ninth Schedule immune from judicial review on the grounds of violating any fundamental right. In Coelho case (2007), the SC held that laws placed in Ninth Schedule after April 1973 would be subject to judicial review
31C	25th amendment, 1971	Provided primacy to the DPSP under Articles 39(b) and (c). Laws made to fulfil these principles shall not be void on the ground that it violated fundamental rights including right to property

**What does the Constitution provide?**

The Preamble to the Constitution aims to secure to all citizens social and economic justice, liberty and equality. Part III of the Constitution lists down the fundamental rights that guarantee liberty and equality while Part IV contains the DPSP. These are principles that the central and State governments should follow to achieve social and economic justice in our country. Unlike the fundamental rights in Part III, the DPSP is not enforceable in court. They are nevertheless fundamental in the governance of the country. Article 39(b) and (c) in Part IV contain principles aimed at securing economic justice provide that ownership and control of material resources of the society should be distributed to serve the common good and that the operation of the economic system does not result in concentration of wealth to the common detriment.

**What is the historical context?**

The Constitution originally guaranteed right to property as a fundamental right under Article 19(1)(f). It provided under Article 31 that the state shall pay compensation in case of acquisition of private property. It is pertinent to note that at the time of independence, the main property rights related to agricultural and other land. The government had to acquire the rights in such estates for carrying out land reforms and construction of public assets. Considering the inadequate resources with the government and in order to provide greater flexibility in acquiring land for public welfare, various amendments were carried out curtailing the right to property. Notable among them are exceptions under Articles 31A, 31B and 31C that are briefly explained in Table 1.

The Supreme Court in various cases has interpreted the relationship between fundamental rights and the DPSP. Most of these cases were against constitutional amendments made by the state that curtailed the right to property that was then a fundamental right. In the Golak Nath case (1967), the Supreme Court held that fundamental rights cannot be abridged or diluted to implement DPSP. Finally, in the Kesavananda Bharati case (1973), a thirteen-judge

Bench of the Supreme Court upheld the validity of Article 31C but made it subject to judicial review. In the Minerva Mills case (1980), the Supreme Court ruled that the Constitution exists on a harmonious balance between fundamental rights and DPSP.

In 1978, in order to avoid excessive litigation directly in the Supreme Court by the propertied class, the 44th amendment act omitted right to property as a fundamental right and made it a constitutional right under Article 300A. The right to private property continues to be an important constitutional cum legal right. Any law to acquire private property by the state should be only for a public purpose and provide for adequate compensation.

**What is the current debate?**

Indian governments in the first four decades after independence followed a “socialistic model” of economy. There were many laws made by the Centre and States to acquire land from zamindars and big landlords for public purpose. The economic policies resulted in the nationalisation of banking and insurance, extremely high rates of direct taxes (even up to 97%), estate duty on inheritance, tax on wealth etc. There were also regulations that placed restrictions on growth of private enterprise like The Monopolies and Restrictive Trade Practices Act, 1969 (MRTP Act). The rationale behind these measures during those times was to reduce inequality and redistribute wealth among the poorer sections who constituted majority of the population. However, such measures stifled growth and also resulted in the concealment of income/wealth. Taxes like estate duty and wealth tax generated revenue that was much less than the cost incurred in administering them.

The nineties saw the country move from a closed economy towards liberalisation, globalisation and privatisation. A new industrial policy was unveiled in July 1991 with the objective of empowering market forces, improving efficiency and rectifying deficiencies in the country’s industrial structure. The MRTP Act was repealed and replaced with the Competition Act, 2002 and income tax rates were reduced considerably. Estate duty was abolished in 1985 and wealth tax in 2016. The market driven economy has resulted in additional resources for the government that has helped in bringing people out of abject poverty. This economic system, nonetheless, has also resulted in growing inequality. A report by the World Inequality Lab states that the top 10% of the country’s population have a share of 65% and 57% of the wealth and income respectively as of 2022-23. The bottom 50% on the other hand have a meagre share of 6.5% and 15% of the wealth and income respectively.

**What can be the way forward?**

It is not just in India, but growing inequality is a worldwide problem of a liberalised open-market economic system. However, it is the responsibility of the government to protect the interest of the poorer classes who are most dependant on the state machinery for their livelihood. At the same time past policies of extremely high tax rates, estate duty, wealth tax etc., did not achieve their desired goals. Instead, they only led to concealment of income and wealth. Innovation and growth should not be curtailed but the benefits of growth should reach all sections especially the marginalised. The policies may vary and need to be framed after adequate debate in line with current economic models. The underlying principle to be achieved nevertheless remains the same — economic justice for all as enshrined in our Constitution.

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**ECONOMICS AND DEVELOPMENT**

## Core sectors slid 5.2% in March

**CONTEXT:** India's eight core infrastructure sectors' output growth moderated to 5.2% in March from an upgraded 7.1% uptick in February, with high growth in cement and electricity production offset by contractions in fertilisers and refinery products.

### Slippery slope

Growth moderated to 5.2% in March from an upgraded 7.1% uptick in February

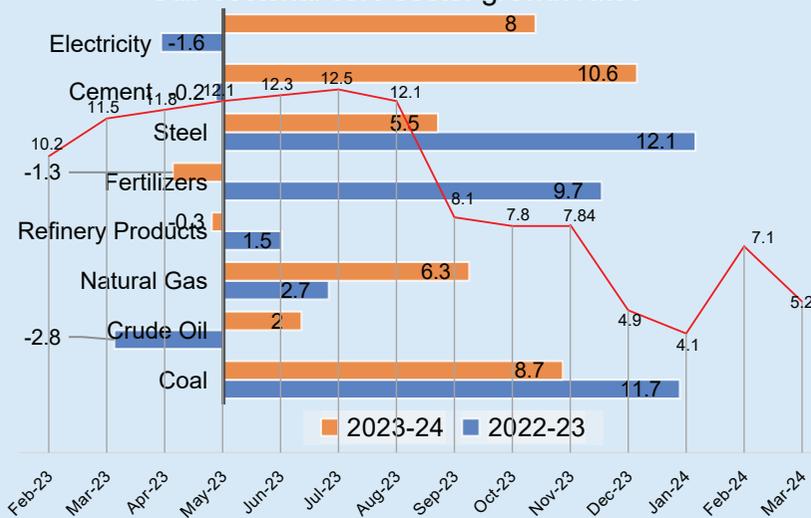
- Fertilisers contracted 1.3% from last March; refinery products shrank 0.3%
- Steel output grew 5.5%; natural gas and crude oil production rose 6.3% and 2%, respectively



- Cement, electricity rose at a 5-month high pace of 10.6% and 8%, respectively; Coal output rose 8.7%

The production of coal, natural gas, cement, steel, crude oil, electricity and refinery products recorded positive growth in February 2024. The ICI measures the combined and individual performance of production of eight core industries viz. cement, coal, crude oil, electricity, fertilizers, natural gas, refinery products and steel. The Eight Core Industries comprise 40.27 % of the weight of items included in the Index of Industrial Production (IIP).

Sub-sectorial core sector growth rates



**FIGURE:** Line chart representation of the core sector growth rates (on Y-o-Y basis in per cent). Inset: Bar chart representation of the sub-sectorial growth rates (on Y-o-Y basis in per cent) of core sector industries for the month of March.

For the full year 2023-24, the core sectors recorded a three-year low growth of 7.5 %, compared with 7.8 % in 2022-23. However, this also marked the first time in at least 12 years that all eight sectors had recorded annual growth, led by double-digit upticks in steel and coal, even as crude oil output rose 0.6 % after 11 years of contraction.

Notably, with a reading of 173.3 in March, the Index of Core Industries (ICI) was 9.9 % over February levels, and marked the

highest print in at least seven and a half years. The ICI constitutes a little over 40 % of the Index of Industrial Production (IIP).

While all sectors recorded higher production levels compared with February, just six of the eight sectors recorded year-on-year growth as well. Fertilisers contracted 1.3 % from last March, marking the third successive month of a drop in output, while refinery products shrank 0.3 %.

**ECONOMICS AND DEVELOPMENT**

## SEBI board approves changes to mutual fund regulations

**CONTEXT:** The Securities and Exchange Board of India (SEBI) is making it mandatory for Asset Management Companies (AMCs) to have an institutional mechanism for deterrence of potential market abuse, including front-running.



The SEBI Board on Tuesday approved amendments to SEBI (Mutual Funds) Regulations, 1996 to enhance the existing regulatory framework by requiring AMCs to put in place a structured institutional mechanism for identification and deterrence of potential market abuse including front-running and fraudulent transactions in securities.

### 'Enhanced surveillance'

The mechanism shall consist of enhanced surveillance systems, internal control procedures and escalation processes to identify, monitor and address specific types of misconduct including front running, insider trading and misuse of sensitive information. Front-running is trading in stock, or any other financial asset by a broker who has inside knowledge of a future transaction that is about to affect its price substantially. The Board also approved enhancing responsibility and accountability of AMCs for such an institutional mechanism and foster transparency by requiring AMCs to have a whistle blower mechanism.



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**ECONOMICS AND DEVELOPMENT****Fertilizer subsidy in FY24 exceeds RE by ₹6,500 crore**

**CONTEXT:** The fertilizer subsidy in Fiscal Year 2023-24 (FY24) has exceeded Revised Estimates (RE) by over ₹ 6,500 Cr.

The urea subsidies increased to more than ₹ 1.30 lakh Cr. as against RE of ₹ 1.29 lakh Cr, still lower than the Budget Estimate of over ₹ 1.35 lakh Cr. Under nutrient-based subsidy (NBS) expenditure rose to more than ₹ 65,000 Cr. as against RE of more than ₹ 60,000 Cr. and Budget Estimate of ₹ 44,000 Cr. The rise in input cost and operations cost mainly on account of an increase in natural gas prices led to the increase in subsidies.

**Urea subsidy**

Last June, the government extended urea subsidy scheme up to March 31, 2025. The total estimated outlay for urea subsidies during FY23 - FY25 was estimated at more than ₹ 3.68 lakh Cr. The actual expenditure is expected to vary based on the prices of natural gas and other inputs used in the production of urea.

Under the subsidy scheme, urea is provided to farmers at a statutorily notified maximum retail price (MRP). The MRP of 45 kg bag of urea is ₹ 242 per bag (exclusive of charges towards neem coating and taxes as applicable), while the cost, on some occasions, crossed ₹3,000 for a 45 kg bag. The difference between the delivered cost of urea at farm gate and net market realisation by the urea units is given as subsidy to the urea manufacturer/importer by the government. Further, government implemented nutrient-based subsidy policy w.e.f. April 1, 2010 nationwide, which has now been extended till 2025-26.

the compliance costs at 43.5 million euros per year, plus a one-off cost of 109.7 million euros, but business groups say they are much higher. Many German Small and Medium Enterprises (SMEs) have been struggling to meet the cost and bureaucratic burden of the Supply Chain Act that took effect in January 2023, adding that this harmed their global competitiveness. A company violating the law could be fined up to 8 million euros or 2% of the company's annual revenue.

Firms with more than 1,000 staff, must take due diligence procedures to monitor suppliers' human rights practices and environmental protection standards — a task almost impossible and threatens to rip apart his supply chain. They must identify problems and devise a policy to mitigate risk through the supply chain. As de-industrialisation fears grow, German manufacturers say the Supply Chain Act further weakens the position of Europe's industrial powerhouse.

survey by the German economic institute IW Koeln showed approximately, 82 % of companies in Germany with more than 250 employees, while 72 % among mid-sized enterprises of 50 to 249 employees were indirectly affected by the law.

**ECONOMICS AND DEVELOPMENT****German law to clean up supply chains triggers fears of industrial regression**

**CONTEXT:** The Supply Chain Act that took effect in Germany in January 2023 requires companies to take due diligence procedures to monitor suppliers' human rights practices and environmental standards put pressure on small and medium enterprises struggling with bureaucratic burden.



More than 5,000 German companies now submit a due-diligence report to the Labour Ministry addressing issues such as workers' rights, child labour, and environmental protections. Berlin estimated

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