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MK Yadav Sir

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PUBLIC ACCOUNTS COMMITTEE (PAC)

(Syllabus: GS Paper 2 – Polity)

PAC to review performance of SEBI, audit airport tariffs

Sobhana K. Nair
NEW DELHI

The Public Accounts Committee (PAC) headed by Congress leader and Lok Sabha MP K.C. Venugopal will hold a performance review of "regulatory bodies established by Act of Parliament", such as the Securities and Exchange Board of India (SEBI).

The PAC will also audit "fees, tariffs, user charges, and so on" levied at public infrastructure such as airports. Currently, seven Indian airports are managed by the Adani Group.

Context: The **Public Accounts Committee (PAC)** headed by senior opposition leader and Lok Sabha member will hold a performance review of "regulatory bodies established by Act of Parliament", such as the Securities and Exchange Board of India (SEBI).

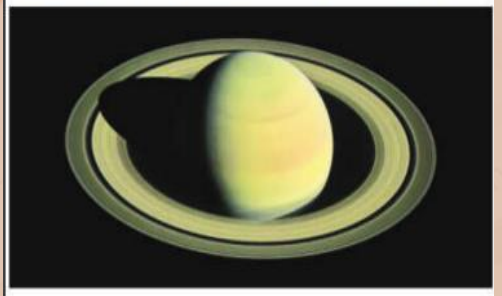
Public Accounts Committee (PAC)

- **About:** It was set up first in 1921 under the provisions of the Government of India Act of 1919 and has since been in existence.
  - It is a committee of selected members of parliament, constituted by the Parliament of India, for the purpose of auditing the revenue and the expenditure of the Government of India.
- **Composition:** It consists of not more than twenty-two members, fifteen elected by Lok Sabha, the lower house of the Parliament, and not more than seven members of Rajya Sabha, the upper house of the Parliament.
- **Member Elected**: The members are elected every year from amongst its members of respective houses according to the principle of proportional representation by means of a single transferable vote.
- **The chairperson is appointed b**y: Lok Sabha Speaker. Until 1966 - '67, the chairman of the committee belonged to the ruling party. However, since 1967 a convention has developed whereby the chairman of the committee is selected invariably from the Opposition.
- **Term of Office**: 1 year.
- **Functions:**
  - The PAC is responsible for auditing the revenue and the expenditure of the government.
  - Review the accounts showing the income and expenditure of autonomous and semi-autonomous bodies audited by the Comptroller and Auditor General (CAG) of India.
  - Consider reports of audits conducted by the CAG either under the President's direction or as per a statute of Parliament.
  - Analyze cases where money has been spent beyond the amount granted by the House, review the reasons, and make suitable recommendations.

SATURN

(Syllabus GS Paper 1 – Geography)

WHY SATURN'S MAJESTIC RINGS WILL BRIEFLY 'DISAPPEAR' IN MARCH 2025



The event will be an optical illusion that occurs every 13-15 years. *NASA*

THERE ARE few sights in the Solar System as majestic as the rings of Saturn. But in March 2025, these rings will "disappear" – though only briefly. Here is why.

An optical illusion

It is not as if the rings will cease to exist. Their "disappearance" – when viewed from Earth – will be an optical illusion.

Saturn, which is tilted at an angle of 26.73 degrees, takes about 29.4 Earth years to complete a single orbit of the Sun. This means that for half of a Saturn year (roughly 15 years), the gas giant is tilted towards the Sun, and for the other half it is tilted away from it. Its rings too are tilted at the same angle, and as the planet revolves, they appear to change their orientation when viewed from Earth.

Every 13 to 15 years, the edge of Saturn's rings aligns directly with Earth. This is what will happen in March 2025 when only the edges of the ring will be visible from our planet. Since Saturn's rings are very thin – just tens of metres thick in most places – at this position, they will reflect very little light, essentially making them invisible. (Imagine viewing the edge of a thin sheet of paper from a great distance.) But as Saturn continues to go around the Sun, its rings will gradually reappear.

This phenomenon last occurred in 2009.

But rings won't last forever

NASA confirmed in 2018 that Saturn will indeed lose its rings for good. In fact Saturn's rings are constantly being pulled towards the planet because of its gravity and magnetic field.

"We estimate that this 'ring rain' drains an amount of water products that could fill an Olympic-sized swimming pool from Saturn's rings in half an hour," NASA scientist James O'Donoghue said in 2018. At this rate, Saturn will completely lose its rings in the next 300 million years – or perhaps sooner.

Data from NASA's Cassini spacecraft revealed that Saturn's rings are made of billions of chunks of ice and rock, whose size varies from as small as grains of dust to as large as mountains. According to current consensus, the rings evolved just a 100 million years ago due to the collision of two icy moons. The debris from this event created Saturn's signature rings.

It is possible that other gas giants like Jupiter, Uranus, and Neptune too had rings once. Today they have only thin ringlets, hard to capture even with a telescope.

Saturn, on the other hand, possesses rings that span a massive distance – nearly five times the diameter of Earth. There are seven major ring divisions, each possessing a complex structure.

ANAGHA JAYAKUMAR

Context: In March 2025, the majestic rings of Saturn will appear to "disappear" from view, offering a rare and stunning spectacle in the Solar System.

Saturn

- **About**: It is the sixth planet from the Sun, and the second largest in the solar system. It's surrounded by rings.
- **Composition**: It is made up of 94% hydrogen, 6% helium and small amounts of methane and ammonia.
- **Size**: With an equatorial diameter of about 120,500 kilometers, Saturn is 9 times wider than Earth. If Earth were the size of a nickel, Saturn would be about as big as a volleyball.
- **Distance**: From an average distance of 1.4 billion kilometers, Saturn is 9.5 astronomical units away from the Sun.
    - One astronomical unit, is the distance from the Sun to Earth. From this distance, it takes sunlight 80 minutes to travel from the Sun to Saturn.
- **Orbit**: Saturn has the second-shortest day in the solar system. One day on Saturn takes only 10.7 hours, and Saturn makes a complete orbit around the Sun in about 29.4 Earth years (10,756 Earth days).
- **Rotation:** Its axis is tilted by 26.73 degrees with respect to its orbit around the Sun, which is similar to Earth's 23.5-degree tilt. This means that, like Earth, Saturn experiences seasons.

Saturn's Rings Optical Illusion

- **Rings' Perception:** It is not as if the rings will cease to exist. Their "disappearance" when viewed from Earth will be an optical illusion.
- **Rings' Orientation Change**: Saturn's rings are tilted at the same angle as the planet. As Saturn revolves around the Sun, the orientation of its rings changes from Earth's perspective.
- **Alignment with Earth**: Every 13 to 15 years, Saturn's rings align edge-on with Earth. This alignment, occurring in March 2025, will make the rings appear as thin lines, reflecting minimal light and making them nearly invisible.
- **Previous Occurrence:** This phenomenon of Saturn's rings appearing edge-on last occurred in 2009.

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GLOBAL STUDY ON SWACCH BHARAT MISSION

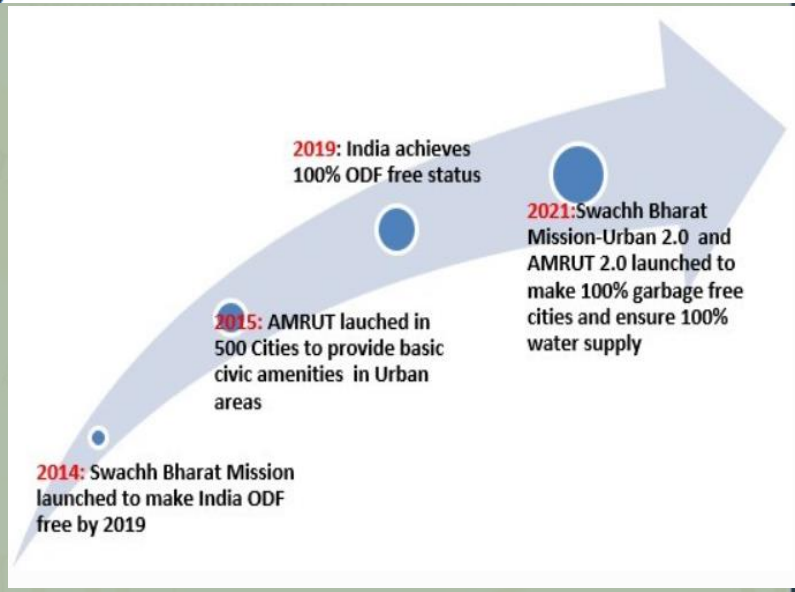
(Syllabus: GS Paper 2 – Health)

Global study by leading experts : Swachh Bharat Mission Drives Significant Reductions in Infant Mortality Rates in India

Context: A global study by leading experts highlights that the Swachh Bharat Mission has significantly reduced infant mortality rates in India.

Key Findings of Global Study

- **Scale of Impact:** Post-2014 SBM implementation led to over 117 million toilets being built, with each 10% increase in toilet access linked to a reduction in IMR by 0.9 points and U5MR by 1.1 points.
- **Threshold Effect**: Districts with over 30% toilet coverage saw significant reductions: 5.3 in IMR and 6.8 in U5MR per thousand live births, potentially saving 60,000-70,000 infant lives annually.
- **SBM's Unique Approach**: SBM's strategy combined toilet construction with extensive IEC and community engagement, a departure from previous, less comprehensive sanitation initiatives.
- **Novel Evidence of Impact**: The study provides new evidence of SBM's role in reducing infant and child mortality, highlighting its effectiveness as a national sanitation program.
- **Broader Public Health Benefits**: Increased toilet access likely reduced exposure to pathogens, decreasing diarrhea and malnutrition rates, which are major contributors to child mortality in India.



Swachh Bharat Mission

- **About:** It is the world's largest sanitation initiative was launched by the Prime Minister of India in 2014.
- **Aim**: To achieve an Open Defecation Free India by October 2, 2019, as a tribute to Mahatma Gandhi.
- **The mission was split into two**: Rural and Urban.

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VERTICAL FISCAL IMBALANCE

(Syllabus: GS Paper 2 – Polity)

What is vertical fiscal imbalance?

The role of the 16th Finance Commission should be to eliminate vertical fiscal imbalance in federal relations. What should it do when revenues are concentrated with the Union government, and the States are burdened with expenditure responsibilities?

ECONOMIC NOTES

R. Mohan
R. Ramakumar

The financial relationship between the Union government and the States in India is asymmetrical, as in many other countries with a federal constitutional framework. As the 15th Finance Commission noted, States incur 61% of the revenue expenditure but collect only 38% of the revenue receipts. In short, the ability of the States to incur expenditures is dependent on transfers from the Union government. Consequently, there is the problem of Vertical Fiscal Imbalance (VFI) in Indian fiscal federalism where expenditure decentralisation overwhelms the revenue raising powers of the States.

Why should VFI be reduced?

Constitutionally, the financial duties of the Union government and the States are divided. On the revenue front, to maximise the efficiency of tax collection, the Personal Income Tax, the Corporation Tax and a part of indirect taxes are best collected by the Union government. But on the expenditure front, to maximise the efficiency of spending, publicly provided goods and services are best supplied by the tier of the government closest to its users. It is in this context that the extent of VFI merits attention.

The 15th Finance Commission had noted that India has had a larger, and rising, vertical imbalance than most other federations. These imbalances were further magnified during periods of crises, such as the COVID-19 pandemic, which drove a large wedge between one's own revenues and expenditure responsibilities at the sub-national level.

The problem of VFI falls under the purview of the Finance Commission, and it deals with broadly two questions. The first question is how to distribute the taxes collected by the Union government to the States as a whole. These transfers are made as a prescribed share of the "Net Proceeds" (Gross Tax Revenue of the Union less surcharges, cesses and costs of collection). The second question is how to distribute taxes across States. The matter of VFI arises as part of the first question.

Apart from devolving taxes, the Finance Commissions also recommend grants to States in need of assistance under Article 275 of the Constitution. But these are generally for short periods and for specific purposes. There are also transfers to the States that fall outside the Finance Commission's ambit. For example, the Union government spends substantial amounts – under Article 282 of the Constitution – on subjects falling in the State and Concurrent lists through centrally sponsored schemes and central sector schemes. But such grants are tied transfers that include conditionalities. In sum, the devolution of taxes from the net proceeds is the only transfer to the States that is untied or unconditional.

Calculating VFI in India

Here we try to estimate the VFI in India after the devolution of taxes to the States. We measure VFI at the level of "all States", and not separately for each State. For this, we use a globally accepted method. We first estimate a ratio where the numerator is the sum of the Own Revenue Receipts (ORR) and the tax devolution from the Union government for all States. The denominator is the Own Revenue Expenditure (ORE) for all States. If this ratio is less than 1, it implies that the sum of own revenue receipts and tax devolution of the States is inadequate to meet the ORE of the States. If we subtract this ratio from 1, we get the deficit in receipts. It is this deficit that we use as a proxy for VFI after devolution.

We can then ask the simple question: how much should tax devolution rise over and above that recommended by the past Finance Commissions to equalise the ratio to 1? Equating the ratio to 1 would eliminate VFI. In the attached table, we show that the average share of net proceeds devolved to the States between 2015-16 and 2022-23 should have been 48.94% to eliminate the VFI. But the shares of tax devolution recommended by the 14th and 15th Finance Commissions were only 42% and 41%, respectively, of the net proceeds.

Raising tax devolution

Many States have raised the demand that the share of tax devolution from the net proceeds must be fixed at 50% by the 16th Finance Commission. They add force to this demand by pointing to the exclusion from the net proceeds of the substantial amounts of cesses and surcharges, which truncates the net proceeds within the gross tax revenue.

Our analysis in this article lends empirical support to this demand. Here, we have assumed the present levels of expenditures of the States as a given. At the aggregate level, these actually incurred expenditures have not only conformed to but also underutilised the borrowing limits specified in the fiscal responsibility legislations. Even then, we find that the share of net proceeds devolved to the States must rise to about 49% to eliminate VFI. Such an increase in devolution would place more untied resources in the hands of the States to spend on their citizens. It would also ensure that States' expenditures better respond to jurisdictional needs and priorities, and that the efficiency of expenditures is enhanced. Overall, it will be a move towards a healthy system of cooperative fiscal federalism.

R. Mohan is former Indian Revenue Service officer. R. Ramakumar is Professor, Tata Institute of Social Sciences, Mumbai.

Estimation of VFI after devolution of taxes

The 15th Finance Commission had noted that India has had a larger, and rising, vertical fiscal imbalance (VFI) than most other federations

Year	VFI after tax devolution (as a ratio)	The desired share of tax devolution to eliminate VFI (%)
2015-16	0.12	47.82
2016-17	0.13	48.24
2017-18	0.12	47.59
2018-19	0.11	47.38
2019-20	0.18	51.17
2020-21	0.28	56.87
2021-22	0.14	47.90
2022-23 (RE)	0.20	51.42
Average (excluding 2020-21 and 2021-22)		48.94



SOURCE: COMPUTED FROM UNION BUDGET DOCUMENTS, AND STATE FINANCES: A STUDY OF THE BUDGETS, RBI

THE GIST

- As the 15th Finance Commission noted, States incur 61% of the revenue expenditure but collect only 38% of the revenue receipts. In short, the ability of the States to incur expenditures is dependent on transfers from the Union government.
- The problem of VFI falls under the purview of the Finance Commission.
- Many States have raised the demand that the share of tax devolution from the net proceeds must be fixed at 50% by the 16th Finance Commission.

Context: The **16th Finance Commission** is tasked with addressing **vertical fiscal imbalances** in federal relations, particularly when revenue is concentrated with the Union government while states bear significant expenditure responsibilities.

Vertical Fiscal Imbalance (VFI)

- **Fiscal Imbalance Definition**: It refers to a situation where a government's future debt obligations do not align with its future income streams. This misalignment can lead to increased tax burdens and reduced household consumption both now and in the future.

Types of Fiscal Imbalances:

- **Vertical Fiscal Imbalance**: This situation arises when there is a mismatch between revenues and expenditures at different levels of government (e.g., federal vs. state).
  - It is a structural issue that can be corrected by reassessing and redistributing revenue and expenditure responsibilities.
- **Horizontal Fiscal Imbalance**: This occurs when revenue does not match expenditures across different regions of a country (between states).
  - To address this, equalization transfers or payments from the federal government to various states or provinces may be implemented to balance out monetary discrepancies.

Constitutional Allocation of Financial Duties

- **Rising VFI in India**: The 15th Finance Commission observed that India experiences a larger and increasing VFI compared to other federations, exacerbated during crises such as the COVID-19 pandemic.
- **Distribution of Taxes and Grants**: The Finance Commission addresses VFI by distributing Union taxes to States and recommending grants for specific needs.

Calculating VFI in India

- **Methodology**: VFI is measured by comparing the ratio of total Own Revenue Receipts and tax devolution to Own Revenue Expenditure. A ratio less than 1 indicates inadequate receipts to cover expenditures, and the deficit in this ratio serves as a proxy for VFI.
- **Needed Increase in Tax Devolution**: To eliminate VFI, tax devolution should be increased to ensure the ratio equals 1.
- Between 2015-16 and 2022-23, the average required devolution was 48.94%, while the actual devolution was only 42% and 41% according to the 14th and 15th Finance Commissions, respectively.

ECONOMIC TIMES

Sep 5

EXERCISE VARUNA 2024

(Syllabus: GS Paper 2 – IR)

Indian Navy's P8I on its first-ever deployment in Europe, to take part in 'Exercise Varuna'

Context: Indian Navy's P-8I aircraft is participating alongside French naval forces in Exercise Varuna 2024.

Exercise Varuna 2024

- **About:** Exercise Varuna is the bilateral naval exercise between India and France.
- **Initiation Year:** The bilateral exercise between the two navies was initiated in 1993.
- **Naming and Significance:** It was named 'VARUNA' in 2001 and has become a hallmark of India-France strategic bilateral relationship.
- **2024 Edition Location:** Mediterranean Sea.
- **Advanced Tactical Exercises:** It includes advanced tactical exercises underscoring the deepening synergy and interoperability between the two navies.
- **P-8I Aircraft Role:** The Indian Navy's P-8I aircraft, renowned for its maritime surveillance and anti-submarine warfare capabilities, will play a pivotal role in these exercises and joins the INS Tabar.
    - The P-8I is a long-range, multi-mission maritime patrol aircraft manufactured by Boeing for the Indian Navy.
    - **Fleet Replacement:** It replaced the aging fleet of the Indian Navy's Tupolev Tu-142 aircraft.
- **Joint Operations:** The P-8I's participation in Exercise Varuna reflects the growing sophistication and complexity of the joint operations between the Indian and French navies.
- **Types of Exercises:** It featured high-tempo naval operations including advanced air defence, anti-submarine warfare exercises, fixed and rotary-wing flying operations, cross-deck helicopter landings, tactical manoeuvres, weapon firings, and maritime security operations.
- **Integration and Capability:** Units from both navies honed their warfighting skills, demonstrating their ability to function as an integrated force capable of promoting peace, security, and stability in the maritime domain.

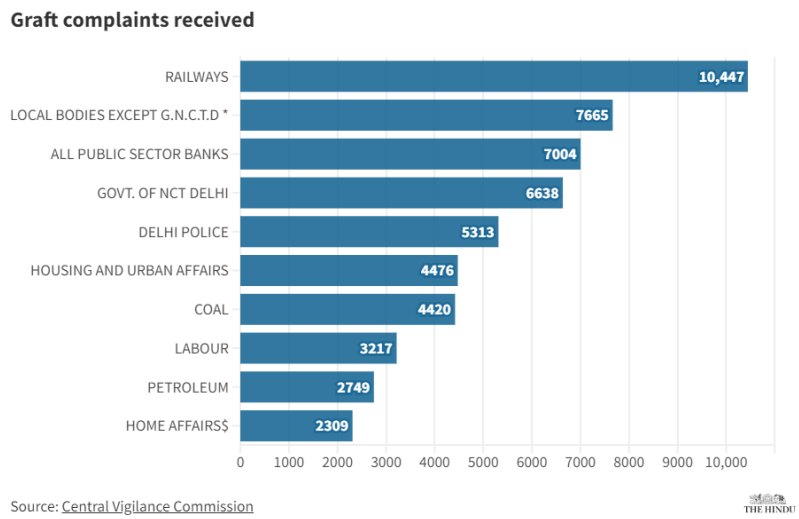
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CENTRAL VIGILANCE COMMISSION (CVC)

(Syllabus: GS Paper 2 – Polity)

Max graft complaints in 2023 against rail, Delhi local bodies, PSU bank staff, shows CVC report

Context: The Central Vigilance Commission (CVC) has released a report detailing corruption complaints against various government officials for 2023.



Central Vigilance Commission (CVC)

- **About**: It is an apex Integrity Institution, possessing full independence and autonomy in its operations.
- **Establishment**: As a result of the Government of India's Resolution, based on the **recommendations of the Committee on Prevention of Corruption**, led by Shri K. Santhanam in 1964.
- **Statutory Status**: The CVC gained its statutory status through the **CVC Act of 2003**.
- **Composition**: Central Vigilance Commissioner (Chairperson) and not more than two Vigilance Commissioners (Members).
- **Organization**: The CVC has its own Secretariat, the Chief Technical Examiners' Wing (CTE), and a wing of Commissioners for Departmental Inquiries (CDI).
- **Appointment**: By the President on the **recommendations of a Committee** consisting of the Prime Minister (Chairperson), the Minister of Home Affairs, and the Leader of the Opposition in the Lok Sabha.
- **Term**: The chairperson and the members are **four years from the date** on which they enter their office or till they **attain the age of 65 years**, whichever is earlier.
- **Removal**: The President can remove the chairperson or any other member from the office.

Major Highlights

- **Total Complaints Received**: In 2023, 74,203 graft complaints were lodged against various officers and employees. Out of these, 66,373 were resolved, while 7,830 remain pending.
- **Complaints Against Railway Employees**: The highest number of complaints, 10,447, were against railway employees. Of these, 9,881 were resolved, and 566 are still pending.
- **Ministry-Specific Complaints**: Complaints were also high in various ministries: Coal (4,420), Labour (3,217), Petroleum (2,749), and Home (2,309).
- **Other Notable Complaints**: Additional significant complaint figures include the Defence Ministry (1,861), Central Board of Direct Taxes (1,828), and Public Sector Insurance Companies (960).

VISHVASYA-BLOCKCHAIN TECHNOLOGY STACK

(Syllabus: GS Paper 3 – Sci and Tech)

Government of India launches Vishvasya–Blockchain Technology Stack

Context: Government of India has launched the **Vishvasya-Blockchain Technology Stack** to offer Blockchain-as-a-Service with a geographically distributed infrastructure designed to support various permissioned Blockchain based applications.

Vishvasya-Blockchain Technology Stack

- **About:** It is designed to offer Blockchain-as-a-Service (BaaS) with a geographically distributed setup to support a range of permissioned blockchain applications.
- **Objective:** To enhance transparency, security, and efficiency in digital service delivery.
- **Hosted:** The stack is hosted across NIC Data Centers in Bhubaneswar, Pune, and Hyderabad, ensuring robust and scalable service delivery.
- **Vishvasya BaaS Features**:
  - Rapid end-to-end permissioned blockchain application development & deployment
  - Ready to use security audited blockchain containers for production setup.
  - Blockchain specific security audit guidelines &bBest practices.
  - Geographically distributed infrastructure across three Data Centres (Hyderabad, Pune and Bhubaneswar).
  - Framework augmented with documentation for easy onboarding of stakeholders.
- **Other Initiatives**: NBFLite-Lightweight Blockchain Platform and Praamaanik, and National Blockchain Portal.
  - **NBFLite-Lightweight Blockchain Platform:** It a Blockchain sandbox platform, is developed especially for startups/academia for rapid prototyping of applications, carrying out research and capacity building.
    - ✓ **Developed by**: Collaborating efforts of C-DAC, NIC, IDRBT Hyderabad, IIT Hyderabad, IIIT Hyderabad and SETS Chennai under the MeitY support.
  - **Praamaanik**: A unique blockchain tool designed to verify the authenticity of mobile apps, ensuring they originate from reliable sources.
  - **National Blockchain Portal**: A centralized platform for accessing all blockchain-related initiatives and updates under MeitY.

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NATIONAL FOOD SECURITY ACT 2013

(Syllabus: GS Paper 2/3 – Gov. policies/Economy)



The Food Security Act has revamped the PDS

During the discussion on the National Food Security Act (NFSA) 2013, there was nervousness about guaranteeing food security through the Public Distribution System (PDS). The nervousness stemmed from the poor record of the PDS – according to National Sample Survey (NSS) data, in 2011-12, at the all-India level, leakages were at 41.7%.

The main argument in favour of continuing with the PDS was that States that had undertaken PDS reforms had witnessed major improvements. Between 2004-5 and 2011-12, several early reforming States saw a dramatic reduction in leakages: Bihar (from 91% to 24%), Chhattisgarh (from 52% to 9%) and Odisha (from 76% to 25%). With the same package of PDS reforms being mandated by the NFSA 2013, there was hope that more States could improve.

The NSS's Household Consumption Expenditure Survey (HCES) data for 2022-23 bears out this hypothesis. The HCES is the first large-scale nationally representative survey after the implementation of the NFSA 2013. It suggests that PDS leakages were down to 22% in 2022-23.

Understanding the data and methodology

PDS "leakages" refer to the proportion of PDS rice and wheat released by the Food Corporation of India (FCI) that fails to reach consumers. Leakages are estimated by matching NSS data on household PDS purchases with "offtake" data reported in the Monthly Food Grain Bulletin of the Food Ministry.

During the reference period (August 2022 to July 2023), PDS ration card holders were getting NFSA grain (five kilograms per capita per month for "Priority" households and 35 kg per month for "Antyodaya" households). In addition, they got Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) grain till December 2022, when PMGKAY Covid-19 relief was discontinued.

To arrive at the estimates presented here, offtake under NFSA including tide-over rations, Non-NFSA and PMGKAY is matched with HCES 2022-23 PDS purchase of (paid for and free) wheat and rice by households.

It is worth bearing in mind that these are estimates, the best possible with available data. Any mismatch between offtake and purchase is attributed to leakage, though there could be other reasons (transport losses, lags in supply and so on). For instance, the *Table* shows how lagging offtake by a month (July-June) yields a lower leakage estimate (17.6%), than if we match the offtake with the NSS reference period (August-July) – 18.2%. Both, however, are underestimates.

Why underestimate? Some States run an "expanded PDS", providing PDS grain to non-NFSA beneficiaries using central contributions (for example, tide-over rations and non-NFSA allocations) as well as State contributions (for example, local procurement). For example, Chhattisgarh's food security act, passed in 2012, made the PDS quasi-universal using local procurement. The all-India leakage estimates of 17.6%-18.2% are underestimates, because they only take into account central contributions, and not State contributions.

There are 14 crore non-NFSA beneficiaries, of whom at the most six crore are supported entirely through State contributions. If we add the State's contribution for State-supported non-NFSA beneficiaries to total offtake, the all-India leakage estimate rises to 22%.

Impact of NFSA on PDS coverage

One of the major PDS reforms included in the NFSA 2013 was an expansion of PDS coverage that was aimed at reducing exclusion errors, but had a 'spillover effect' on reducing leakages. In 2011-12, before the NFSA, less than 50% of households had ration cards, and the proportion of households getting anything from the PDS was around 40%. There was an improvement over 2004-05, when less than a quarter (24%) of households were accessing the PDS.

The improvement between 2004-5 and 2011-12 was driven by reforms in States such as Chhattisgarh and Odisha where the PDS coverage increased substantially in this period. For instance, in Chhattisgarh, there was a three-fold increase (from 21% to 63%) in the proportion of households using the PDS. According to HCES data, in 2022-23, the proportion of households buying from the PDS has increased further to 70%. In large part, this is the result of the rollout of the NFSA.

In spite of the improvement in coverage, the Centre is falling short of the coverage mandated by the NFSA (50% of rural population and 75% of urban population), i.e., around 66%. Earlier work, based on administrative data, suggested that only 59% had access to the PDS as NFSA beneficiaries. Similarly, according to the HCES, out of the 70% who access the PDS, only 57%-61% have NFSA ration cards. The rest (roughly 10%) are non-NFSA beneficiaries.

PDS reforms undertaken by early reforming States such as Chhattisgarh and Odisha included a reduction in PDS prices, doorstep delivery of foodgrains, digitisation of records, deprivatising management of PDS outlets by handing them over to panchayats, and self-help groups. These reforms were incorporated in the NFSA 2013 (Chapter V).

As mentioned earlier, by 2011-12, PDS leakage estimates in the early reforming States had already crashed. Since then, more States with high leakages have managed to reduce them. According to HCES 2022-23, it was 9% in Rajasthan, 21% in Jharkhand and 23% in Uttar Pradesh (all one-time basket cases).

Many believe that the integration of Aadhaar, especially Aadhaar-based biometric authentication (ABBA), led to the improvements in the PDS. Data from primary surveys, however, do not support this. Two surveys in 2017 in Jharkhand shed light on this issue. A study by Muralidharan, Niehaus and Sukhtankar found that leakages before the introduction of ABBA were already less than 20%. Drèze, Khera and Somanchi reported that the purchase-entitlement ratios (the proportion of entitlement that people actually purchases) in offline villages and ABBA villages were virtually the same – 94% and 93%, respectively. Both surveys found little evidence of ghost cards.

Somewhat puzzlingly, leakages in States where the PDS traditionally worked better have not experienced further improvements; in fact, in some, estimated leakages have increased (example, in Tamil Nadu from 12% in 2011-12 to 25% in 2022-23).

In perspective

The PDS is now a functional instrument of social policy, guaranteeing a modicum of food security to many. During the COVID-19 lockdowns, it formed the backbone of relief efforts, along with the National Rural Employment Guarantee Act. However, the PDS remains an endangered instrument of social policy, constantly subjected to "innovations". These include cash transfer experiments, door-step delivery to people's homes (in Delhi), and imposing inappropriate technologies (such as Aadhaar-based biometric authentication).

Instead of expending energy on ill-conceived measures (such as the ongoing eKYC drive for the PDS) that can easily derail the PDS, scarce government capacity should be channelled to expediting the delayed Census, that is leading to the exclusion of over 100 million people. Other demands such as the inclusion of more nutritious items such as pulses and edible oil remain relevant.

Reetika Khera

Professor of Economics at IIT Delhi

As anticipated, implementation of Public Distribution System (PDS) reforms as mandated in the National Food Security Act has reduced leakages

PDS leakages - All India estimates, 2022-23

	No adjustment for State contribution	Adjusted for State contributions
Lagged offtake, July 2022 to June 2023	17.6%	21.6%
Matched offtake, August 2022 to July 2023	18.2%	22.1%

Context: During the discussion on the National Food Security Act (NFSA) 2013, there was nervousness about guaranteeing food security through the Public Distribution System (PDS).

Food Security Act 2013

- **Objective:** The Act aims to provide food and nutritional security through access to quality food at affordable prices, ensuring a dignified life for all.
- **Coverage**: It covers 75% of the rural population and up to 50% of the urban population under the Targeted Public Distribution System (TPDS), serving 67% of the total population.
- **Eligibility**: Priority Households as per state guidelines and households under the Antyodaya Anna Yojana are eligible for benefits.
- **Public Distribution System (PDS):** It evolved as a system of management of scarcity through distribution of foodgrains at affordable prices.

Impact of NFSA on PDS Coverage

- **Expansion of PDS**: The NFSA 2013 expanded PDS coverage, aiming to reduce exclusion errors and decrease leakages in the system.
  - In 2011-12, before the NFSA was enacted, less than 50% of households had ration cards, and only about 40% of households received any benefits from the PDS.
- **PDS Access Growth (2004-05 to 2011-12)**: Between 2004-05 and 2011-12, PDS coverage improved significantly, particularly in States like Chhattisgarh and Odisha.
- **Shortfall in NFSA Coverage**: Despite improvements, the Centre has not fully met NFSA's coverage mandate of 66%. Only 59% of people were reported to have access to PDS as NFSA beneficiaries.
- **Non-NFSA Beneficiaries in PDS**: Of the 70% accessing PDS, only 57%-61% had NFSA ration cards; approximately 10% were non-NFSA beneficiaries.
- **Leakage Levels in 2022-23**: It were low in States like Rajasthan (9%), Jharkhand (21%), and Uttar Pradesh (23%), all of which had previously struggled with high leakages.

Responsibility under NFSA

- The Centre is tasked with allocating the required amount of foodgrains to States and Union Territories (UTs).
- The Centre ensures the transportation of foodgrains to designated depots in each State/UT.
- Central assistance is provided to States/UTs for delivering foodgrains from the depots to the Fair Price Shops (FPS).
- States/UTs are required to set up grievance redressal mechanisms and strengthen the Targeted Public Distribution System (TPDS) for efficient service delivery.

PIB Sep 5

POSHAN TRACKER INITIATIVE

(Syllabus: GS Paper 2 – Social Issues)

Ministry of Women and Child Development receives National Award for e-Governance 2024 (Gold) for Poshan Tracker initiative

Context: Recently, the Ministry of Women and Child Development has received the National Award for e-Governance 2024 (Gold) for the Poshan Tracker initiative.

Poshan Tracker Initiative

- **About:** It identifies and addresses growth issues in children aged 0-6 using real-time monitoring and WHO growth charts to ensure optimal nutrition.
- **Role of Anganwadi Workers (AWWs):** It play a critical role in assessing children's health and implementing interventions when growth deviations are identified.
- **Use of ICT Tools and GMD**: The program utilizes advanced ICT tools and Growth Measuring Devices (GMD) at each Anganwadi Center to facilitate accurate data collection and regular monitoring.
- **Outcomes:** Real-time monitoring under the Poshan Tracker has significantly improved child health outcomes across India, benefiting millions of children through Mission Poshan 2.0.

Mission Poshan 2.0

- **About**: It is an Integrated Nutrition Support Programme aimed at combating malnutrition among children, adolescent girls, pregnant women, and lactating mothers.
- **Objective**: It helps tracking a child's growth pattern over time through WHO growth charts, which are essential tools used to monitor children's growth and development.
- These charts plot key anthropometric measurements- such as height and weight- against age and sex-specific standards, providing a visual representation of a child's growth trajectory.
- **Status**: Currently, Mission Poshan 2.0 covers an impressive 8.9 crore children (0-6 years), with a remarkable 8.57 crore measured in a single month through routine monthly Growth Measurement.

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LEGALLY BINDING INTERNATIONAL TREATY ON AI

(Syllabus: GS Paper 3 – Sci and Tech)

What is the significance of first global 'legally binding' pact on use of AI

ANIL SASI
NEW DELHI, SEPTEMBER 5

THE UNITED States, the European Union, and the United Kingdom (UK) signed the Council of Europe's convention on artificial intelligence (AI), the first "legally binding" international treaty on the use of the revolutionary new technology, on Thursday.

The treaty, which prioritises human rights in its approach to the regulation of public and private-sector AI systems, is seen as the first real agreement among the key players in the development of AI. It comes amid concerns that disparate regulations proposed by individual countries could hinder the evolution of this technology.

Officially known as the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, the treaty was opened for signature during a conference of Council of Europe Ministers of Justice in Vilnius, Lithuania.

Pact with teeth, responsibility

The treaty that was drafted over the last two years by more than 50 countries adopts a risk-based approach to the design, development, use, and decommissioning of AI systems. It covers the use of AI systems in the public sector – including companies acting on its behalf – and in the private sector, and will be applicable across geographies.

Signatories will be accountable for "any harmful and discriminatory outcomes of AI systems", and will ensure that "outputs of such systems respect equality and privacy rights, and that victims of AI-related rights violations have legal recourse".

Council of Europe Secretary General Marija Pejcinovic said: "The Framework Convention on Artificial Intelligence is a first-of-its-kind, global treaty that will ensure that AI upholds people's rights. It is a response to the need for an international legal standard supported by states in different continents which share the same values to harness the benefits of AI, while mitigating the risks. With this new treaty, we aim to ensure a responsible use of AI that respects human rights, the rule of law and democracy."

Obligations and applicability

EXPLAINED AI

Upon ratification, member states will have to ensure that:

- their AI systems are "consistent with obligations to protect human rights";
- these systems are not used "to undermine the integrity, independence and effectiveness of democratic institutions and processes, including the principle of the separation of powers, respect for judicial independence and access to justice";
- measures are put in place "to protect...democratic processes in the context of activities within the lifecycle of artificial intelligence systems", including individuals' fair access to and participation in public debate, as well as their ability to freely form opinions.

There are a few exemptions in the scope of applicability, such as national security and research and development. The treaty puts an obligation on parties to address the risks posed by activities within the lifecycle of AI by public and private actors.

The treaty comes at a time when sovereign governments and smaller multilateral groups have come up with a clutch of new regulations and agreements to oversee AI tools, including the G7 pact on AI (October 2023), Europe's AI Act (provisional deal in December 2023), and Bletchley Declaration signed by 28 countries (November 2023).

The G7 pact on AI is called the International Code of Conduct for Organizations Developing Advanced AI Systems. The 11-point code aims to "promote safe, secure, and trustworthy AI worldwide" through "voluntary guidance for actions by organisations developing the most advanced AI systems". These include generative AI applications like ChatGPT, and the foundation models they are built on.

Europe's AI Act provides AI developers and deployers with obligations regarding specific uses of AI, and seeks to reduce administrative and financial burdens for small and medium-sized businesses. It also defines four levels of risk associated with AI systems, with those coming under "unacceptable risk" to be banned.

The Bletchley Declaration saw 28 countries – including the US, China, Japan, and India – declare that global action was needed to tackle the potential risks of AI. Earlier in 2023, X owner Elon Musk, Apple co-founder Steve Wozniak, and others signed an open letter calling for a six-month pause in AI development, until a shared safety protocol on the risks posed by AI was drafted.

Issues and concerns

Even though the treaty is being called "legally binding", there are concerns that it does not contain provisions for punitive sanctions such as penalties or fines. Compliance is primarily ensured through "monitoring", which is not much of a deterrent from an enforcement point of view.

Apart from European countries, those who signed the treaty early on included Israel and Georgia. Hanne Juncher, the Director of Security, Integrity and Rule of Law at the Council and who is in charge of the negotiations, was quoted by the *Financial Times* as saying, "This is confirmation that [the convention] goes beyond Europe and that these signatories were super invested in the negotiations and...satisfied with the outcome".

Context: The **United States, the European Union, and the United Kingdom (UK)** are expected to sign the Council of Europe's convention on artificial intelligence (AI), the **first "legally binding"** international treaty on the use of the revolutionary new technology.

Obligations and Applicability

- Upon ratification, member states will have to ensure that:
  - Their AI systems are "consistent with obligations to protect human rights.
  - These systems are not used "to undermine the integrity, independence and effectiveness of democratic institutions and processes, including the principle of the separation of powers, respect for judicial independence and access to justice.
  - There are a few exemptions in the scope of applicability of the Framework Convention, such as national security and research and development.
- **Concerns:** Treaty is being called "legally binding", there are concerns that it does not contain provisions for punitive sanctions such as penalties or fines.

Legally Binding International Treaty

- **About**: The treaty prioritizes human rights in regulating public and private-sector AI systems and is viewed as the first significant agreement among major AI developers.
- **Official Name**: The treaty is officially known as the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law.
- **Scope of Coverage:** It applies to both the public sector, including companies acting on its behalf, and the private sector, with applicability across various geographies.
- **Accountability and Legal Recourse**: Signatories are accountable for harmful and discriminatory AI outcomes, ensuring that outputs respect equality and privacy rights, and provide victims with legal recourse.
- **First-of-Its-Kind Global Treaty:** The Framework Convention on Artificial Intelligence is a pioneering global treaty aimed at ensuring AI upholds human rights and addresses international legal standards while mitigating risks.

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