



Anna Chakra and SCAN for Reforming PDS System

For Prelims: [India's Public Distribution System](#), [National Food Security Act \(NFSA\) of 2013](#), [Fair Price Shops](#), [Pradhan Mantri Garib Kalyan Anna Yojana](#), [Food Corporation of India](#), [Minimum support prices](#), [One Nation One Ration Card](#)

For Mains: Reforms in PDS System in India, Challenges Related to India's Public Distribution System in India, Measures can be Adopted to Enhance the Effectiveness of the PDS System.

Source: [PIB](#)

Why in News?

Recently, the Union Minister of Consumer Affairs, Food and Public Distribution and New & Renewable Energy, launched “**Anna Chakra**” and the **SCAN (Subsidy Claim Application for NFSA)** portal with the aim to modernize India's [Public Distribution System \(PDS\)](#).

- This will enhance the efficiency of the PDS supply chain and streamline the subsidy claim process, benefiting millions of citizens reliant on food security programs.

What is Anna Chakra and the SCAN System?

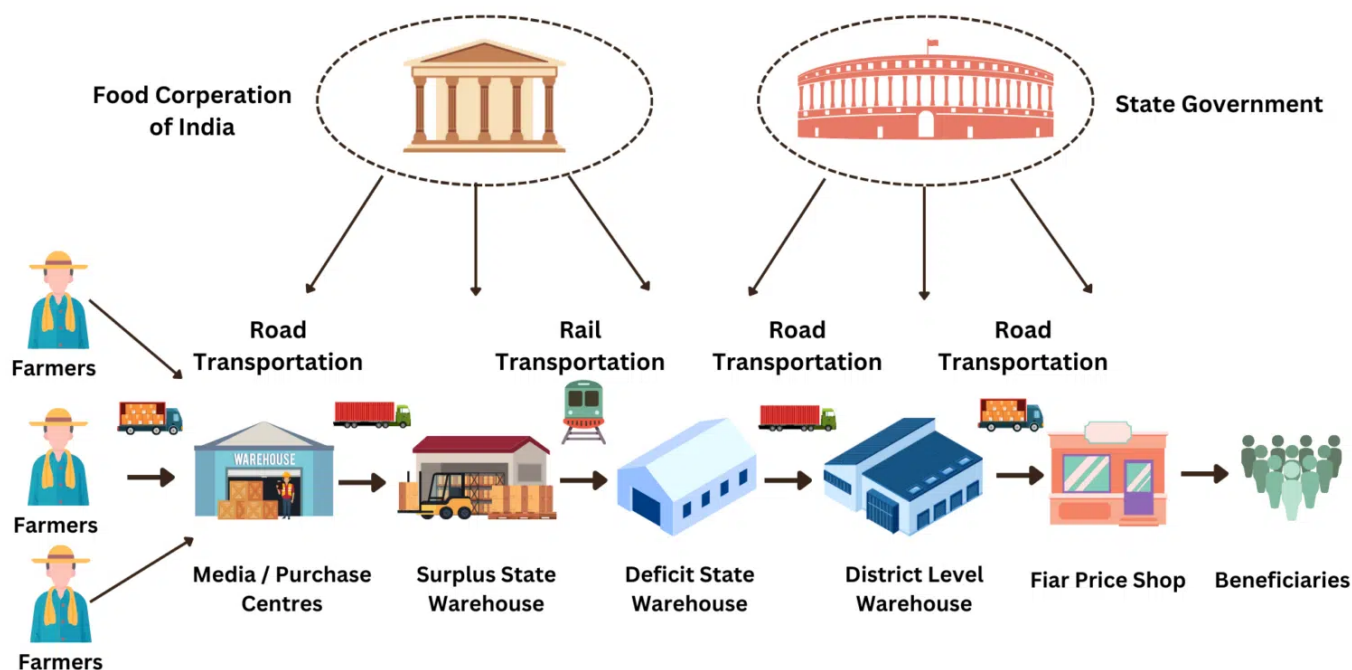
- **About Anna Chakra::**
 - Anna Chakra is a pioneering tool for **optimizing the supply chain of the PDS** in India.
 - It has been developed in collaboration with the [World Food Programme \(WFP\)](#) and the **Foundation for Innovation and Technology Transfer (FITT)** at IIT-Delhi.
 - This initiative employs **advanced algorithms to identify optimal routes** for the **transportation of food grains**.
- **Key Features:**
 - **Enhanced Efficiency and Cost Savings:** Optimizes the **PDS logistics network** to ensure **timely delivery of essentials** while achieving **annual savings of Rs 250 crores** through reduced fuel consumption, time, and logistics costs.
 - **Environmental Sustainability:** Minimizes transportation-related emissions by reducing transportation distance by **15-50%** and contributing to a **reduced carbon footprint**.
 - **Wide Coverage:** Optimization assessment spans **30 states**, benefiting approximately 4.37 lakh [Fair Price Shops \(FPS\)](#) and 6,700 warehouses within the PDS supply chain.
 - **Seamless Integration:** Linked with the **Railways' Freight Operations Information System (FOIS)** via the **Unified Logistics Interface Platform (ULIP)** and integrated with the [PM Gati Shakti platform](#), enabling **geo-location mapping** of FPS and warehouses.
- **About SCAN System:**
 - The **SCAN** portal is designed to **streamline the subsidy claim process** for states under the [National Food Security Act \(NFSA\) 2013](#).
 - It **modernizes PDS operations** for **better fund utilization**, aligns with **government tech initiatives to reduce leakages**, and **enhances food security** for 80 crore people with environmental and economic benefits.

- **Key Features:**
 - **Unified Platform:** Provides a **single-window system** for states to submit food **subsidy claims**, streamlining the process for all stakeholders.
 - **Automated Workflow:** Ensures **end-to-end automation for the release and settlement of [subsidies](#)**, enhancing efficiency and transparency.
 - **Rule-Based Mechanism:** Utilizes **rule-based processing for claim scrutiny and approval** by the Department of Food and Public Distribution (DFPD), expediting settlements.

What is PDS?

- **About:**
 - The PDS is an **Indian food Security System** established to **address food scarcity by providing foodgrains at affordable prices**
 - It operates under the **[National Food Security Act \(NFSA\), 2013](#)**, ensuring **food security for nearly two-thirds of India's population** based on **Census 2011 data**.
- **Nodal Ministry:**
 - Ministry of Consumer Affairs, Food, and Public Distribution.
- **Evolution of PDS:**
 - The Public Distribution System (PDS) in India originated during **World War II** as a **wartime rationing measure** and evolved through several phases.
 - In the **1960s**, PDS expanded in response to **food shortages**, with the establishment of the **[Agriculture Prices Commission](#)** and the **FCI** to ensure **domestic procurement and storage**.
 - By the 1970s, PDS became a **universal scheme**, and in **1992**, the **[Revamped Public Distribution System \(RPDS\)](#)** aimed to strengthen and **expand PDS** reach in remote areas.
 - The **Targeted Public Distribution System (TPDS)**, launched in **1997**, focused **on the poor** by **categorizing beneficiaries into [Below Poverty Line \(BPL\)](#) and [Above Poverty Line \(APL\)](#) households**.
 - The **[Antyodaya Anna Yojana \(AAY\)](#)**, launched in **2000**, further targeted the **poorest families**.
- **Management:**
 - It is **jointly managed by the Central and State/UT Governments**, with distinct responsibilities.
 - The Central Government, via the **[Food Corporation of India \(FCI\)](#)**, handles **procurement, storage, transportation, and bulk allocation** of foodgrains.
 - State Governments manage **local distribution, identify eligible households, issue ration cards, and supervise [Fair Price Shops \(FPSs\)](#)**.
- **Commodities Distributed:**
 - PDS primarily provides **wheat, rice, sugar, and kerosene**. Some states also distribute items like **pulses, edible oils, and salt**.

STRUCTURE OF THE PUBLIC DISTRIBUTION SYSTEM IN INDIA



National Food Security Act (NFSA), 2013

- **Enacted:** NFSA was enacted on 12th September 2013
- **Objective:** The NFSA aims to **ensure food and nutritional security** through a human life cycle approach, providing access to adequate quantities of quality food at **affordable prices**, enabling individuals to **live with dignity**.
- **Coverage:** It covers **75% of the rural population and up to 50% of the urban population** under the **Targeted Public Distribution System (TPDS)**, benefiting **67% of India's total population**.
- **Eligibility:**
 - **Priority households** as per state government guidelines under TPDS.
 - Households under the existing **Antyodaya Anna Yojana (AAY)**.
- **Provisions:**
 - **5 kg** of foodgrains per person per month at subsidized rates of **Rs. 3/2/1 per kg for rice/wheat/coarse grains**.
 - AAY households continue to receive **35 kg** of foodgrains per month.
 - Meal and maternity benefits of at least **Rs. 6,000 for pregnant women** and lactating mothers.
 - **Meals** for children up to 14 years of age.
 - A **food security allowance** for beneficiaries in case of non-supply of entitled foodgrains or meals.
 - **Grievance redressal mechanisms** at the district and state levels.

What Initiatives Have Been Taken to Reform the PDS System in India?

- **One Nation One Ration Card (ONORC):**
 - **ONORC** enables **portability of ration cards across the country**. It allows beneficiaries to access subsidized food from **any FPS nationwide**, benefiting **migrant workers and seasonal laborers**.

- It enhances **inclusivity, transparency, and efficiency** through biometric authentication and digital payments.
- **Universal PDS:**
 - Tamil Nadu has implemented a **Universal PDS**, where **every household is entitled to subsidized food grains**, ensuring comprehensive coverage across the state.
- **Technology Related PDS Reforms:**
 - **SMART-PDS Scheme:** In 2023, the Government of India approved the **SMART-PDS** scheme for the period **2023-2026**.
 - It aims to **maintain and upgrade the technology** used in the **End-to-End Computerization and Integrated Management of PDS (ImPDS)**.
 - **Computerized Fair Price Shops (FPS):** Many **FPS** have been computerized through the installation of **Point of Sale (POS) machines**, which **authenticate beneficiaries** and record the quantity of subsidized grains issued. This automation **reduces the scope for fraud and ensures transparency** in distribution.
 - **Aadhaar and Direct Benefit Transfer (DBT):** **Aadhaar** integration in **TPDS** has enhanced **beneficiary identification, reducing errors and eliminating duplicates**.
 - **DBT** ensured **cash transfers to beneficiaries**, offering **flexibility to purchase food grains** from the open market while **reducing reliance on ration shops**.
 - **GPS and SMS Monitoring:** **GPS** tracking has been used to ensure that food grain trucks reach designated FPS without diversion, while SMS alerts notify citizens about the dispatch and arrival of TPDS commodities, promoting transparency and public participation.

Note: The **Supreme Court** appointed **Wadhwa Committee** in **2006** found that states like **Tamil Nadu, Chhattisgarh, and Madhya Pradesh** had implemented computerization and other technological measures to streamline the PDS.

- These reforms have helped reduce leakages and improve the delivery of food grains.

What are the Challenges Related to PDS?

- **Identification of Beneficiaries:** There are significant **inclusion and exclusion errors** in identifying beneficiaries. Many eligible households are left out, while non-eligible households receive benefits.
 - Studies have shown that the PDS suffers from nearly **61% error of exclusion and 25% error of inclusion**.
- **Corruption and Leakages:** Corruption and leakages are widespread, with food grains being diverted to the open market or sold at higher prices. This undermines the effectiveness of the system.
 - A recent study by **International Food Policy Research Institute (IFPRI)** and the **Indian Council for Research on International Economic Relations (ICRIER)** highlights that approximately **28% of subsidized grains** meant for the poor in India are **lost to leakage**, resulting in an **estimated financial loss of Rs 69,108 crore** to the government.
- **Storage and Distribution:** There is a lack of adequate storage facilities, leading to wastage and spoilage of food grains. Additionally, the distribution network is inefficient, causing delays and losses.
- **Quality of Food Grains:** The PDS often distributes **inconsistent and poor-quality food** grains, and its focus on free rice and wheat **fails to meet the diverse nutritional needs**, particularly of children under five.

Way Forward

- **End-to-End Digitalization & Monitoring:** There is a need to use **blockchain and IoT** to **track the supply chain** and implement **real-time stock updates**. **AI analytics** can help detect irregularities and prevent theft.
 - Upgrade FPS with **biometric authentication, electronic weighing scales, and digital**

payment systems, also there is a need to implement **QR codes for quality certification** and create a **public monitoring dashboard**.

- **Portable Benefits & Migration Support:** Strengthen **One Nation One Ration Card (ONORC)** with **better interstate coordination** and real-time tracking. Facilitate temporary ration card registration for seasonal migrants.
- **Storage Infrastructure Modernization: Upgrade to modern silos with IoT-based quality monitoring.** Develop **decentralized, tech-enabled storage** and promote **public-private partnerships** for infrastructure.
 - Establish **disaster response protocols** with prepositioned stocks and mobile PDS units.
- **Nutritional Security:** Turn select FPS into **nutrition hubs with pulses, oils, and fortified items**. Introduce **E-Rupee nutrition vouchers** for vulnerable groups and include millets in PDS, as in Karnataka and Odisha.

Drishti Mains Question:

What is the Public Distribution System (PDS)? Why is it essential for India, and what reforms have been implemented to enhance its efficiency?

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q.1 In the context of India's preparation for Climate-Smart Agriculture, consider the following statements: (2021)

1. The 'Climate-Smart Village' approach in India is a part of a project led by the Climate Change, Agriculture and Food Security (CCAFS), an international research programme.
2. The project of CCAFS is carried out under Consultative Group on International Agricultural Research (CGIAR) headquartered in France.
3. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India is one of the CGIAR's research centers.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Q.2 With reference to the provisions made under the National Food Security Act, 2013, consider the following statements: (2018)

1. The families coming under the category of 'below poverty line (BPL)' only are eligible to receive subsidized food grains.
2. The eldest woman in a household, of age 18 years or above, shall be the head of the household for the purpose of issuance of a ration card.
3. Pregnant women and lactating mothers are entitled to a 'take-home ration' of 1600 calories per day during pregnancy and for six months thereafter.

Which of the statements given above is/are correct?

- (a) 1 and 2 only

(b) 2 only

(c) 1 and 3 only

(d) 3 only

Ans: (b)

Mains

Q.1 In what way could replacement of price subsidy with Direct Benefit Transfer (DBT) change the scenario of subsidies in India? Discuss. **(2015)**

PDF Refernece URL: <https://www.drishtias.com/printpdf/anna-chakra-and-scan-for-reforming-pds-system>

