
SMART RATION CARD SCHEME: DISBANDING THE AGE OLD PRACTICES IN PUBLIC INTEREST

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NFSA & its correlation to SDG (Sustainable Development Goal)

For the fulfillment of UN SDG 2 related to ending hunger, achieving food security and improved nutrition by 2030 for all the people, in particular the poor and people in vulnerable situations throughout the year. The State of Punjab aims to ensure supply and distribution of essential commodities to all the sections of the society through an improved Public Distribution System with End-to-End Computerization of Targeted Public Distribution System (TPDS).

The conventional PDS system versus our cost-effective right to food

As passed by the Parliament, Government of India had notified the National Food Security Act, 2013 on 10th September, 2013 with the objective to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity. The Act provides for coverage of upto 75% of the rural population and upto 50% of the urban population for receiving subsidized foodgrains under Targeted Public Distribution System (TPDS), thus covering about two-thirds of the population. In the State of Punjab, 54.79% of the rural and 44.83% of the urban population, a total 141.45 lakh persons out of the total population of 277.04 lakhs are covered under the NFSA 2013.

The eligible persons are entitled to receive 5 Kgs of foodgrains per person per month at subsidized prices of Rs. 2 per Kg for wheat. The existing Antyodaya Anna Yojana (AAY) households, which constitute the poorest of the poor, will continue to receive 35 Kgs of foodgrains per household per month.

Prior to the implementation of the NFSA 2013, under the conventional PDS system, the quality of the grains was getting compromised in the tedious and manual process of procurement, transportation, storage & distribution. This led to a huge wastage of funds and

corruption scandals. Under the conventional system, wheat was distributed manually and there was no track of the bogus beneficiaries or ensuring that the genuine & deserving beneficiaries have received their entitled quota of subsidized foodgrains.

The conventional system of supply chain management starting with procurement from farmers to distribution of grains to end beneficiary needed a complete overhaul. It was a high time to restructure the PDS system. The State of Punjab treated the implementation of NFSA, 2013 as an opportunity to revamp the conventional PDS system to make it leakage free & transparent and ensure that all the deserving & genuine beneficiaries get their entitled quota of subsidized foodgrains in right quantity & quality.

Keeping in mind the empowerment of the consumers/ beneficiaries, the State Government had decided to distribute 6 months quota of subsidized foodgrains in HDPE/ PP consumer bags weighing 30 kg. twice a year. This endeavor was undertaken to ensure:-

- 1) Distribution of wheat in standard /sealed packs of 30 kg.
- 2) Distribution of wheat of RIGHT quality & quantity.
- 3) Leakage/Diversion free distribution of foodgrains.
- 4) Easy portability for consumers/ beneficiaries.
- 5) Consumer convenience by curtailing monthly visits to the Fair Price Shop
- 6) Six months quota of wheat is being distributed in the presence of Government official and a member/s of Vigilance Committee, as mandated by the GOI. This ensures that the beneficiaries get their due wheat in standardized manner and any leakage/ diversion is checked.

Prior to the implementation of NFSA 2013, the beneficiaries were distributed old wheat stocks on FIFO principle. In order to ensure that the beneficiaries under NFSA 2013 get only fresh & FAQ wheat stocks, the State Government decided to be a DCP State for the quantity equivalent to the State's annual allocation under NFSA 2013. Special permission was obtained from GOI for biannual distribution of subsidized foodgrains in 30 kg bags,

Major steps involved for complete transformation of PDS operations includes:-

- Under NFSA 2013, Department of Food & Civil Supplies, Punjab initiated digitizing the beneficiary's database. Details of all the beneficiaries were uploaded on ePDS application developed by Department and the same was seeded with the Aadhaar numbers of the beneficiaries. All the identified beneficiaries under NFSA 2013 were

distributed bar-coded UID compliant e-ration cards, in order to ensure that there are no bogus beneficiaries and only genuine/ deserving beneficiaries get subsidized ration. The distribution of subsidized ration under NFSA 2013 was started on the basis of digitized database of the ration card holders (e-registers).

Moving ahead for implementation of End-to-End computerization of PDS operations, department associated NIC for various modules/ applications which are mentioned below, to bring transparency in Public Distribution System.

- **eRCMS (Ration Card Management System)** application developed by NIC HQ was adopted and complete beneficiary database was ported from previous ePDS application.
- **FEAST (Food & Essential Commodities Assurance & Security Target)** application developed by NIC HQ was rolled-out for implementation of Supply chain management which also helps in tracking foodgrains movement from state godowns to fair price shops.
- Distribution of foodgrains to end beneficiaries was done using ePOS application developed by NIC Aandhra team which facilitated Aadhaar based bio-metric authentication of beneficiaries using ePOS devices during the time of distribution. Utility of e-KYC was also developed in the application for real time Aadhaar seeding in PDS database.
- A web-API was developed by NIC Aandhra team, to showcase real-time status/ progress of the State over a centralized dashboard of GoI i.e. Annavitran portal.

Further, under the End to End computerization scheme of TPDS operations scheme of GOI, the State of Punjab has worked upon a revolutionary model as an 'End to End Solution' which addresses all the anomalies in the conventional PDS system at almost all the essential steps involved in the process. The new model is highly transparent in which the ration is getting distributed using biometric authentication through ePOS devices with Inspector centric approach as one Inspector caters to multiple FPS. This has greatly reduced the role of mediators and has reduced the chances of diversions, pilferage's and corruption. This has helped to greatly strengthen the role of department through its direct intervention and supervision at almost every step. This has almost nullified the age old discretionary role of fair price shop holders. Transportation charges would be calculated automatically by taking the co-ordinates of the storage & distribution point.

Due to the bi-annual distribution of subsidized foodgrains under NFSA 2013, the State Government has also been able to save the expenditure on PoS devices. Instead of procuring/ providing a PoS device for each of the 17000 Fair Price Shops in the State, the State of Punjab is able to distribute ration across the State with only 1917 PoS devices. The Inspectors of the Department, who are supposed to distribute the subsidized ration under their supervision, carry the PoS device to the place of distribution, for authenticating each transaction through bio-metric identification of the beneficiary. By following above model, State is able to save approx. Rs. 32.80 Cr. annually.

In case of failure of bio-metric identification of the beneficiary due to some technical or other reason, provision has been made for iris scan of the beneficiary. Additionally, for complete bio-metric failure cases, a mechanism has been devised and implemented by the NIC wherein an OTP will be sent of the beneficiaries mobile number registered with Aadhaar incase finger and iris scanning of beneficiaries fails. Also, electronic weighing scales are being used at the time of distribution in order to doubly ensure the quantity of foodgrains being distributed to the beneficiaries and all the transactions are recorded digitally.

Online distribution of foodgrains was started from the distribution cycle April' 18- Sept' 18 onwards. Following is the summary of last distribution cycle i.e. April'22 – Sept'22

No. of Ration Cards	No. of Beneficiaries	No. of FPS*	No. of DCP Godowns	No. of PoS Devices	% Distribution
4068451	15773875	18385	341	1917	95.44

THE INNOVATIVE ASPECTS OF PUNJAB PDS MODEL

- **Biannual System**

In the Smart Ration Card Scheme, six months quota of food grains is distributed to the beneficiaries in the presence of Vigilance Committee members and field officers. First, this saves the unnecessary visits of the beneficiary to Fair Price Shops (FPS). Second, the presence of the supervisory officers and Vigilance committee members and the other beneficiaries make the system all the more effective and fair and empowering consumer.

- **Good quality fresh Foodgrains**

In Punjab, the wheat stocks distributed under TPDS are procured by the state itself and are kept in designated state godowns and silos. Hence, this decentralized pool (DCP) of stocks ensures fresh foodgrains delivery to the end consumer. The quality of DCP stock procured is regularly checked by the officials of the department and FCI before distributing to the beneficiary.

- **Inspector Centric Approach: ePOS and Aadhar authentication**

Foodgrain is distributed through the ePOS devices using Biometric Authentication of atleast one member in the family of the beneficiary. There is an Inspector centric approach as one Inspector caters to multiple FPS.

- **Exception Handling in case of bio-Metric Failure cases**

A mechanism has been devised and implemented by the NIC wherein an OTP will be sent of the mobile number registered with Aadhaar, in cases where Aadhaar Authentication (Both Finger print & IRIS) of beneficiary get failed.

- **Electronic Weighing Machine:**

Despite the fact that standardized packaging of 30 kg is given to the beneficiary, a full proof system is in place to ensure that the actual quantity is given to the beneficiary. ePOS machines are equipped with electronic weighing machine and the actual quantity gets delivered to the beneficiary.

- **Well-defined eligibility criteria addressing regional imbalances**

The geographical and socio-economic profile of state of Punjab is highly diverse. The new system with the economic criteria as the eligibility condition addresses the regional imbalances and strengthens the border areas of Punjab where the goal of food security is more important.

- **Efficient System**

Elimination/ reduction in existing malpractices in TPDS such as leakages, diversion of food grains, presence of duplicate/ghost beneficiaries, low quantity and poor quality of foodgrain.

- **Socio-economic benefits**

The new and effective system of TPDS helps in ensuring that the benefits of the subsidy are percolated to the exact beneficiary. This leads to redistributing income in favour of poor and disadvantaged population thus achieving the twin objective of growth and equity.

- **Online issuance of the New/ Renewal Licenses of Fair Price Shops:** Under the Punjab PDS model the license for New / renewal of the Fair Price shops are been issued online after the following the due process.

- **Integration of Ration Card with Digilocker :** The Ration Card of NFSA families have been integrated with digilocker. In case any beneficiary requires a copy of ration card the can be downloaded from the digilocker by entering the ration card details.

GOVERNANCE PRACTICES INVOLVED

- **Enhanced supervision**

The biannual distribution of wheat to the beneficiaries in the presence of the departmental functionaries and vigilance committees has been approved by Government of India. This has helped in substantially reducing the leakages and diversions.

- **Grievance Redressal Mechanism**

The presence of a robust Grievance Redressal Mechanism at three different levels:

- a) Internal - headed by District Food Supplies Controller
- b) External - headed by Deputy Commissioners/ Additional Deputy Commissioners
- c) State Food Commission - five member committee to monitor and review the implementation of NFSA, 2013.

In addition, there is a call center and helpline for the beneficiaries to address to their issues.

- **E-governance**

For the purpose of implementing Smart Ration Card Scheme in the State, the entire operations have been digitized. There are e-registers having the details of the beneficiaries. The transparency portal for this purpose can be accessed upto FPS level by anyone anytime and anywhere.

COMPARISON OF PRE-DEPLOYMENT SCENARIO & POST-DEPLOYMENT BENEFITS

Pre-deployment scenario

- Numerous malpractices made safe and nutritious food inaccessible and unaffordable to the beneficiaries thus resulting in the food insecurity.
- No set criteria of identification, verification of BPL families gave massive scope to corruption and fallouts in PDS systems.
- Illicit fair price shop owners have been found to create large number of bogus cards to sell food grains in the open market.
- Being a manual system of distribution of foodgrains under PDS, there was no accurate record of identified beneficiary receiving foodgrain.
- Growing instances of the consumers receiving inferior quality food grains in ration shops
- Dealers replace good supplies received with inferior stock and sold the stock in the black market.
- Many FPS dealers resort to malpractice, illegal diversions of commodities, holding and black marketing.
- Flow of foodgrains from Godowns till FPS was not tracked in a transparent manner.

Post –Deployment Scenario

- Introduction of a new model has helped the government not only to save the resources and time by saving the process of procurement, storage & transportation but also it effected into a more hassle free distribution.
- Distribution of ration based on a half yearly disbursement to each beneficiary as per their respective monthly entitlement in a pre-pack of 30 kg bag of grains has greatly

revolutionized the very process at almost all the essential steps by effectively keeping a check on all the anomalies of the previous system .

- Each beneficiary has to be seeded with Aadhaar where only a genuine beneficiaries falling under the income group of defined parameters of NFSA are included as compared to the many bogus & duplicate beneficiaries which were getting the benefits of the scheme earlier.
- Aadhaar based bio-metric authentication of beneficiary has ensured that only the identified beneficiary whose Aadhaar number is recorded in the database receives foodgrains.
- The pilferage & diversion of the food grains shall be reduced as all the allocation will be done online only to the genuine beneficiaries.
- Implementation of Supply Chain Management helped in tracking of foodgrains movement from Godowns till FPS in an efficient and transparent manner.
- The new model has greatly contributed to boost the morale of the original end beneficiary who is now happy to receive his fresh and advance quota of food grains in bulk quantity.

FUTURE PLANS IN PUBLIC DISTRIBUTION SYSTEM

1. Changing from bi-annual distribution cycle to monthly distribution cycle.
2. Provisioning of the ePOS kits (ePOS device, IRIS Scanner & Weighing Scale) at all operational FPS.