6   Analysis and Recommendations

Strategies need to be adapted to reduce corruption in the PDS. In a country like India where the Government's influence in the lives of citizens is considerable. After independence, the major cause for the improvement in the lives of citizens is Government's efforts. Union as well as the State governments spend thousands of crores through different schemes to improve the lives of common man in the country. Even though there is an improvement in the lives of citizens after independence, the magnitude of improvement is not matching the funds spent, due to leakages in the funds because of corruption in the system. One can see real improvement only when corruption can be avoided or minimized in the delivery mechanism. ICT should be used in the system so that corruption can be minimized.

While The PDS is centralized its yet its computerization with respect to procurement and distribution of grains varies from State to State . Some States like Andhra Pradesh, Karnataka, Tamilnadu, Madhya Pradesh ,Gujarat and Punjab have made good progress in computerization yet other States like Rajasthan, Bihar, West Bengal and North Eastern States are lagging behind .

Since each State is developing and implementing its own version of e-Governance there is a disconnect between FCI and the States. So though FCI is developing some software for end to end computerization.

The States like Karnataka, Tamil Nadu and Chattisgarh and Gujarat which have made used of the e-Governance platform have partnered with National Informatics Computers a government of India undertaking.

6.1 Recommendations

The Government has also set up the Unique Identification Authority of India which has till date issued Aadhar Cadrs to over 90% residents in India. The Aadhar number can be used like a social security number and all beneficiaries can be identified and tracked based on their Aadhaar number .The Aadhar card can be used like a social

security number with which can link the beneficiary to the rations disbursed in the Fair Price Shop. What is needed is the development of an MIS software which links the Aadhar Card beneficiary with the PDS number. The reform required to improve PDS needs to be detailed.

6.2 Areas for PDS reform

Critical aspects of the PDS that need reform are as follows:

i. Beneficiary identification, and addressing inclusion/exclusion errors
ii. Addressing diversions and leakages
iii. Managing foodgrain storage and ensuring timely distribution
iv. Effective accountability and monitoring, and enabling community monitoring
v. Mechanisms for grievance redressal
vi. Ensuring food security
vii. No provision for beneficiary to buy in instalments
viii. Weak monitoring, lack of transparency and inadequate accountability of officials implementing the scheme
ix. Unfair practices like excess price being charged

An effective online grievance redressal mechanism will also be required to be in place. The stakeholders in PDS reform are a) the farmers who produces the grain, b) the procurement Agency viz the state Government or the FCI on behalf of the Central Government and c) the beneficiary.

The processes involved in end to end computerization of PDS would be a) procurement, b) transportation, c) storage and d) distribution to the beneficiary. End-to-end Computerisation of PDS Operations is the vision of Digital India Programme.

The beneficiaries can also enroll for SMS alert facility to get all this information. The facility for registration of grievances and tracking their status is also available through the State TPDS portal, toll-free helpline numbers etc.

6.3 Use of Aadhar Card in the Public Distribution System

The Unique Identification number (Aadhaar) was conceived by the Indian government as a means for residents to clearly and uniquely verify their identity

anywhere in the country. The mandate for the UIDAI includes defining the usage of the number across critical applications and services. The Public Distribution System is one such application, and the UIDAI has accordingly laid out the potential role Aadhaar can play within the PDS.

Aadhaar is best translated to mean a 'foundation', and the number would play precisely this role in the PDS. The number would be a foundation, over which the government can build more effective PDS processes, and ensure that the program helps fulfill the broad and admirable vision of India's proposed national food security act. Perhaps the greatest value of Aadhaar for the PDS stems from how it can be easily integrated into the existing infrastructure. Aadhaar presents governments with a highly flexible solution – states can choose to implement Aadhaar within the PDS in stages, beginning with Aadhaar-based identification, and progressing towards Aadhaar-based authentication and an Aadhaar-enabled Management Information System (MIS).

The eventual nature of an Aadhaar-linked approach in PDS would depend on the particular benefits the government hopes to gain.

Using Aadhaar solely for identification would enable clear targeting of PDS beneficiaries, the inclusion of marginal groups, and expanded coverage of the poor through the elimination of fakes and duplicates. Implementing Aadhaar-based authentication across PDS would enable the government to guarantee food delivery to the poor. In addition to powerfully streamlining PDS processes, an Aadhaar-enabled MIS would make possible a more transparent, flexible system, and enable the government to fulfill the objective of food security in times of crises.

Aadhaar would thus be a tool – albeit, a powerful one – in fulfilling the government's overall objectives for the PDS and in ensuring food security for the poor.

Currently different States are using different softwares for maintain the Database of beneficiaries and for Digitalising ration Cards . An Aadhar based software can be used to maintain a unified ration card database in each state. Currently the bar coded ration cards in Chattisgarh and Gujarat have two unique identifiers –a numeric code and a bar code printed on the Ration Card. The Aadhar number of the beneficiary can be integrated into the numeric code . The Aadhar Card number of each beneficiary can be linked to the Ration Card number.

Aadhaar can play an important role in the core areas outlined for reform within the Public Distribution System. as Aadhaar Cards have been issued to more than 90% of the country's population.

6.3.1 Aadhaar enabled reforms in the PDS

Aadhar can play an important role in the major areas outlined for reform in the PDS. One of the major challenges is identifying beneficiaries for food entitlements and ensuring that poor are not excluded. The issues pertaining to PDS are as follows:

- Omission of poor families: A problem in reaching benefits to BPL families is that the poorest families often lack the identification documents they need to receive ration cards. They are as a result, excluded from the PDS.

- Fake and duplicate ration cards which do not correspond to real families: The PDS has pointed out the problem of large numbers of duplicate and fake cards in both the BPL & AAY categories, which result in significant leakage of food subsidies from the PDS system. The Wadhwa Committee recently corroborated the problem of duplicate cards, noting that the practice of "multiple ration cards issued under a single name" is widespread nationally. In Delhi alone, RTI petitions uncovered 901 ration cards issued in the name of one woman, 'Manju' in Badarpur.

- Clear identification of beneficiaries: Since Aadhaar guarantees uniqueness, linking each beneficiary listed in the ration card to their Aadhaar would ensure that only unique individuals are present in the PDS database. This would eliminate duplicates, ghosts and fake identities.

- Ensuring inclusion of the poor: Savings from eliminating duplicates and fakes through Aadhaar-based identification will enable governments to expand benefits to more poor residents.

- One Aadhaar implies one beneficiary: Aadhaar is a unique number, and no resident can have a duplicate number since it is linked to their individual biometrics. Using Aadhaar to identify beneficiaries in PDS databases will eliminate duplicate and fake beneficiaries from the rolls, and make identification for entitlements far more effective.

- Portability in identification: Aadhaar is a universal number, and agencies and services can contact the central Unique Identification database from anywhere in the country to confirm a beneficiary's identity. The number thus gives individuals a universal, portable form of identification.

- Aadhaar-based authentication to confirm entitlement delivered to the beneficiary: Aadhaar enables remote, online biometric and demographic authentication of identity. Such Aadhaar-based authentication can take place in realtime, and can even be performed through a mobile phone. Using Aadhaar for real-time identity verification at the FPS, when beneficiaries collect their entitlements, will help governments verify that the benefits reached the person they were meant for.

One challenge here is ensuring that such authentication is carried out at the FPS. Today, beneficiaries in a particular block or district can collect their rations only from their allotted ration shop. Governments can ensure that Aadhaar-based authentication is implemented by the FPS owner by **linking future FPS allocations to authenticated off take by beneficiaries.**. The fewer Aadhaar-based authentications happen at the outlet, the less grain the FPS receives from the government. This will give the FPS owner a strong incentive to ensure that Aadhaar-based authentication is carried out, and that authentication devices are working. Use of such authentication while leveraging the **portability of Aadhaar** can bring significant benefits. Such choice will give beneficiaries more negotiating power with FPS owners. If one FPS owner for instance, refuses to honor the beneficiary's entitlement or does not provide them with the authenticating device to withdraw rations, the beneficiary can go to another FPS to collect their benefits. Aadhaar-based authentication would also enable the government to allocate foodgrain to ration shops based on the amount of authentication-linked offtake. This approach of portable entitlements can be first implemented in parts of the country – such as urban centers.

However, since the Aadhaar would be recognized across ration outlets, the number would help residents **collect entitlements from any FPS within the state**. Governments would then replenish FPS stocks based on authentication-linked offtake, which would give them real-time information on how many beneficiaries collected their entitlements from which outlet.

These two aspects of the Aadhaar-enabled system – linking grain allocation to authenticated offtake, and choice of FPS for the beneficiary – would enable a significant shift from the present approach, where foodgrain allocations within the PDS are static, supply-led and divorced from beneficiary demand and choice.

The Aadhaar-enabled approach would instead help create a demand-led, dynamic system, one which gives power and choice to the beneficiary.entitlements through authentication and an Aadhaar-linked MIS would enable governments to make entitlement collection flexible –beneficiaries would be able to collect their entitlements on a weekly and monthly basis, and also claim entitlements left over from previous months.

Finally, electronic benefit transfers linked to Aadhaar would give beneficiaries flexibility in the kind of foodgrains they have access to, particularly in times of shortage; it would also enable governments to tailor food entitlements to pregnant women, infants and young children. This System would help eliminate diversion and leakages as the **proxy withdrawals** would be reduced to nil . A key source of leakage identified in the PDS, is subsidized food drawn from the ration shop in the names of eligible families by someone else. In such cases, the ration card has usually been issued and distributed without the knowledge of the eligible beneficiary. When the beneficiary does have the ration card, FPS owners often do not open the ration shop, or open it without warning, so that beneficiaries are unable to claim their rations. Rations are then diverted through proxy withdrawals through duplicate cards. Through Aadhaar-based authentication at the FPS, the government can ensure that rations are not collected without the beneficiaries' knowledge, and that only entitled beneficiaries collect rations.

Aadhaar-based authentication can be utilized across the supply chain. Implementing Aadhaar authentication at every exchange point would enable governments to track the movement of food entitlements across the PDS chain, and identify bottlenecks and diversions in real-time. In the case of centralized procurement, such authentication would begin at the FCI point.

Managing food grain storage and ensuring timely distribution can be easily ensured with the help of Aadhaar. The expense of grain storage has become a significant aspect of PDS costs, and storage availability limits the amount of grain that the PDS can

procure and distribute. Storage limitations also increase grain spoilage, resulting in losses and additional cost. Once Aadhaar authentication is in place across the PDS infrastructure, it can be linked to an MIS to ensure efficient grain management and storage. Governments would then be able to track and manage Aadhaar-linked procurement, storage and movement of foodgrain in real-time.

6.3.2   Choices in Aadhaar implementation

The government can determine which Aadhaar-linked features to implement within the PDS, depending on priorities, cost, and feasibility of the intervention. Governments may choose to rapidly implement Aadhaar authentication across the system, and establish an MIS across the PDS infrastructure; other states may prefer to first implement identification-related features and roll out the others over a period of time.

6.3.3   Proposed features of an Aadhar-enabled system

Such an Aadhaar-enabled system would have the following features:

i. Online registration of farmers through Aadhaar: Farmers anywhere in the country supplying grain to the PDS could first register online through their Aadhaar number. They would be officially registered once their details are verified by PDS officials.

ii. Electronic order management: The Aadhaar-based system would enable the government to issue procurement orders online, which would mean immediate Aadhaar at every exchange point would also enable inventory management to be reconciled online, and payments could be seamlessly processed into suppliers' Aadhaar linked bank accounts. This system would also enable the government to predict and manage local storage requirements. Electronic registration and order management would encourage local, decentralized procurement, as close to storage facilities and demand points as possible.

iii. Aadhaar enabled Depot management system: Aadhaar should be integrated with the depot management system being implemented in FCI so as to have direct linkages with the farmers and the beneficiaries.

iv. Portability: The use of an MIS linked to a universal identifier such as Aadhaar, would enable governments to match supply and demand across districts as well as in the longer term, across states.

v. Focus on efficiency: Online registration and management would improve the efficiency of the system, and enable the timely distribution of foodgrain to the beneficiary. Delays in movement and offtake of grain could be identified by delays in Aadhaar authentication and immediately flagged on the system.

vi. Tracking of grain offtake: Tracking of individual offtake through Aadhaar authentication would enable beneficiaries to collect their entitlements in instalments, and also collect leftover quota from previous months.

Building an Aadhaar-enabled MIS within PDS would require process changes across various organizations – including the FCI, SFC, and PDS departments. These changes would have to accompany MIS implementation, to ensure that the system works effectively across PDS procurement, storage, movement and distribution.

6.3.4 Effective Monitoring and Accountability

Despite vigilance groups and monitoring systems in place in the PDS, there exists a lack of transparency and clear accountability. Aadhaar authentication will accountability at all levels across the system.

i. Accountability in foodgrain movement: The use of Aadhaar authentication at subsidy exchange points would ensure that the responsibility of each individual – supplier, transporter, FPS owner, inspector – is traceable, and clearly visible across the PDS infrastructure.

ii. FPS accountability: Requiring Aadhaar authentication every time the beneficiary collects the entitlement from the FPS would ensure that the FPS owner must clearly account for the offtake claimed by his store.

iii. Beneficiary accountability: Aadhaar authentication by the beneficiary would ensure that proxy withdrawals of entitlements are no longer possible. Beneficiaries would also not be able to withdraw more subsidies than they are entitled to through duplicate ration cards.

iv. Community participation in monitoring: Communities in both rural and urban India have turned to Right to Information, as well as public activism, in order to access FPS records and monitor the functioning of ration shops. However these community monitoring efforts by individuals and civil society organizations have been

constrained by the limited access they have to records across the PDS supply chain, before the foodgrain arrives at the FPS.

Aadhaar-based authentication and MIS would bring transparency to a currently opaque system. Clear accountability through Aadhaar authentication, as well as the use of electronic records, would make data more available for community monitoring, and would strengthen the use of RTI in PDS.

In addition, the Aadhaar-enabled infrastructure would enable governments to take additional steps for effective public monitoring.

i. SMS alerts: An SMS-alert can be sent to the resident's Aadhaar-linked mobile number when the truck leaves from the warehouse for the FPS depot. The SMS can contain information such as time the truck left, quantity of grain it is carrying, and grain prices.

ii. Making information public: An MIS system across the PDS infrastructure means that data would be easily accessible across the supply chain. This information can be shared. This information can be shared by the government with beneficiaries. This would also create new spaces for civil society to engage and monitor delivery of entitlements to the poor.

6.3.5 Mechanisms for grievance redressal

A particularly powerful use of Aadhaar would be in tracking grievances and complaints from PDS beneficiaries. The number would enable:

i. Individual recognition: Aadhaar ensures that PDS beneficiaries are individually recognized and easily verified as beneficiaries, without fear of duplicates. Aadhaar can enable the government to implement a central system which automatically publishes grievances submitted by beneficiaries online or through a toll-free number. The complaint would be published once the system verifies the beneficiary's Aadhaar.

ii. High visibility: An Aadhaar-enabled IT grievance system would ensure that complaints are visible publicly and across different levels of government. As a result, there would be a strong incentive to address complaints quickly.

iii. Ensuring 'nish-pakshita' or impartiality in addressing grievances: The advantage of an IT-enabled grievance system is that the complaints of all beneficiaries are treated

the same. This is often not the case today, when grievances are channeled through village or local administration.

iv. Pre-empting grievances in food delivery: The PDS has typically been highly reactive in responding to challenges in delivering food, and weaknesses are addressed once complaints and problems reach a threshold. An Aadhaar-enabled MIS however, creates new opportunities for governments to identify and address problems in real-time.

6.3.6 Other Measures

i. FPS to use STQC (Directorate under DeitY) certified Point of Sale (PoS) devices.

ii. Andriod App to be developed for easy use of Aadhar based MIS

iii. The use of social media to influence public involvement in food issue .The government agencies can make e use of Social media to create awareness of the governments schemes for ensuring Food Security will promote transparency and provide vital feedback leading to improvement in service delivery and plugging of loopholes.

iv. State Governments to set up a PDS Portal: The digitized list of beneficiaries made available in the public domain on State Governments' PDS portals will ensure transparency in the identification of beneficiaries and enable them to check their status. Through the State PDS portal, beneficiaries would also be able to check status of foodgrains allocated for their Fair Price Shop (FPS) each month including quantity delivered at the FPS.

v. State PDS Portal and toll-free helpline numbers to be set up to provide the facility for registration of grievances and tracking their status

6.4 Conclusions

Aadhaar can be a potent tool for the government, in making the PDS more effective , an Aadhaar based authentication across PDS would enable the government to guarantee food delivery to the poor. In addition to powerfully streamlining PDS processes, an Aadhaar-enabled MIS would make possible a more transparent, flexible system, and enable the government to fulfill the objective of food security in times of

crises. Aadhaar would thus be a tool, albeit, a powerful one, in fulfilling the government's overall objectives for the PDS and in ensuring food security for the poor.

Aadhaar can help the PDS ensure food delivery to beneficiaries without losses and leakage. The number offers benefits in identification of beneficiaries, confirmation in delivering entitlements, and accountability across the delivery infrastructure. Aadhaar would also make it possible to implement an **online food account** through which entitlements could be delivered to the poor. The Aadhaar-enabled MIS system can host online food accounts on the cloud, which are linked to Aadhaar numbers of FPS owners as well as each individual beneficiary. The online account of the beneficiary would be updated monthly with the details of their entitlements – which foodgrains, how much, and at what price. When the beneficiary authenticates themselves with their Aadhaar at the FPS to collect the benefit, the authentication confirmation appears against the FPS owner's food account. The government can thus track offtakes of foodgrain in real-time. If the subsidized good was provided to the FPS at market price, the FPS owner can then claim their reimbursement from the government. The system, on receiving the Aadhaar linked confirmation that the entitlement was delivered, would electronically issue a cheque to the FPS owner, or transfer money to the FPS owner's bank account.

The online food account would have none of the disadvantages of offline food coupons/vouchers. FPS owners would not be able to collude with officials to accept photocopies of food coupons or fake coupons, since reimbursements would be carried out electronically. This approach could streamline benefit transfers and give both governments and residents flexibility in food delivery and access. The government could for instance, immediately tailor entitlements in response to local shortages, such as temporarily providing higher allocations of rice when wheat is unavailable. It would also help improve state responses to crises and disasters, as governments can provide higher allocations, as well as temporarily increase the number of outlets within a particular area from where subsidized grain can be claimed.

6.5 The Way Forward

In order to make effective use of Information Technology for plugging leakages and bringing more transparency it is important to study the use of e-governance in other

big countries like Russia and China which have large agricultural economies but which have enabled its citizens to be food secure. .

It is also important to understand that technology by itself does not bring change but it is the adaptation and correct usage of technology with which change can be affected. End to end computerization of the entire value chain is a must but it has to be accompanied by some other reforms like decentralization of the role of FCI , involvement of the rural community through the Gram Panchayat in the process of identification of beneficiary and disbursal of the food through the FPS .