

A decentralized and holistic approach for grain management in India

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The recent news items on the loss of stored grains in the godowns of the Food Corporation of India (FCI) created a huge uproar not only due to the wastage of grains but also because it was the time when the Government was planning the National Food Security Act amidst increasing inflation in the prices of edible commodities. In this article, an effort has been made to outline the various facets of grain management in India and to suggest a holistic approach for the same.

The concern

The rapid increase in the production of cereals especially wheat and rice, in the post Green Revolution era, prepared the base for developing strategies for grain management in India. After decades of sporadic and endemic famines, the immediate need of the seventies was to store the surplus produce from irrigated agro-ecosystems and to distribute it to the agri-input starved states. The statistics of the FCI, clearly indicate that the volume of actual movement of grains has increased from 204.51 lakh tonnes (wheat and rice only) in 2001–2002 to 303.69 lakh tonnes in 2009–2010 (source: FCI Annual Report, 2009–2010). With this increase in quantum, the food subsidy released to the FCI also increased from Rs 16,274 crores to 46,456 crores during the reported period. Also, due to the soaring fuel prices, the cost of handling per quintal of grain or the difference between acquisition cost and economic cost has increased from Rs 126 to 248 for wheat and from Rs 119 to 255 for rice in the same period. These increased handling charges and the subsidy being given are definitely the first concern for grain management.

The success of the Green revolution in many agriculturally developed areas of the country created a divide between the grain rich and the grain starved areas. With the efforts of the government at different stages and with huge subsidy, the excess grains are being purchased in the harvest season and stored in different conditions. The estimated storage capacity of the FCI is 30.52 million tonnes, which include ~1800 storage godowns, both

owned and hired. But the costly store management and lack of advanced techniques for storage result in an estimated loss of grains amounting to more than Rs 50,000 crores per year (www.indiawaterportal.org). The expected rise in agricultural productivity, due to increase in hybrids, will further complicate the problem, if efforts are not made at this stage to adopt innovative ways of grain storage.

The gains in terms of production and productivity by adopting hybrids and the marketing support from government agencies on only limited number of crops has led to a situation where locally adapted crops and varieties are rapidly vanishing. The concern for these losses become more profound when considered in conjunction with changing climate, receding underground water, depleting organic resources, nutritional imbalances and forced changes in food habits. Even the concept of food security revolves around just two crops – wheat and rice, delinking it from the overall nutritional security.

The impact

The commendable increase in crop productivity during the last 30–40 years was based on costly inputs like fertilizers, assured irrigation, uncontrolled use of pesticides and improved seeds. As the Indian farming community is a complex mix of farmers ranging from innovators to laggards, big to marginal, and resource rich to resource poor, there is always a condition wherein some of them have a huge marketable surplus whereas others have to force-sell their produce to pay for input costs. Thus, there is always a rush to sell the produce after each harvest, causing a glut in the market and a reduction in the price. Lack of efforts, by small and marginal farmers, to increase their storage capacity is one of the main reasons for dependence on agencies like FCI, who are now overburdened. Even after 63 years of independence, the most common complaint of the rural mass living below poverty line is that they do not have even a grain in their house. This kind of situation also makes them mor-

ally weak and frustrated. Every month, they have to make long queues at public distribution system (PDS) shops for purchasing food for themselves.

Considering the psychology and general practices followed by villagers, it is observed that: (i) Everyone wants to have some grain in their store. (ii) It is very difficult to change the food habits and taste requirements of the area. (iii) If facilities for storage are provided, villagers will be extremely happy to store their produce. (iv) Need of money for various purposes will continue to force villagers to sell their produce at bargain prices.

A closer analysis of the rural economy indicates that although villagers are able to produce enough quantities of different food grains according to their taste and dietary preferences, the grain produced is first sold to different agencies just after harvest and again repurchased by/supplied to them under PDS system or other schemes. With 70% of the population still residing in rural areas, there is a need to conceptualize innovative schemes which can stop losses during the massive movement of grains from one place to another – losses due to rain, insects, rodents, theft and sometimes malpractices of traders. Thus, it becomes imperative to pool resources from different government programmes and to frame a comprehensive scheme, cutting across the limits of departments and agencies.

The scheme for decentralized and holistic management of grains

'Apna Anaj Apne Gaon Mein Yojana' (Our Grain in Our Village Scheme) is proposed and discussed here. Under this scheme, the promotion of local storage of important grains will be taken up in a systematic and scientific manner as detailed below:

- A self help group (SHG) of 3–5 educated youth from the village will be constituted. They may be linked with the National Rural Employment Guarantee Act (NREGA) for the first 2–3 years for financial support.
- The SHG will enlist producers and consumers of the village panchayat

- along with their capacity/willingness to produce/consume different grains.
- Their bank accounts will be opened and recorded by the monitoring agency for the scheme.
 - Before the commencement of actual planting of the season, the farmers will be contacted and their proposed area under target grain crops will be recorded.
 - Accordingly, the estimated produce will be calculated.
 - Based on this assessment, the beneficiaries will be paid 20–25% of the price of their produce in advance (through their bank account) to meet input costs.
 - Once the actual production is over, the real output will be ascertained and the beneficiaries will again be paid 20–25% of the price of their produce.
 - Here, the scheme can operate with two alternatives: (i) If a grain hub for the panchayat can be provided with adequate facilities for storage (can be done through NREGA), the grains required to meet the needs of the village can be procured and stored. (ii) Until grain hubs are developed at the panchayat level, the producers can be allotted a tentative month in which their produce will be required for distribution in and around the village, by the government. They can easily store the produce till that time as 50% of their payment has already been made and there is added assurance of the remaining payment.
 - Once there is need for the grain in the village panchayat or the nearby areas, the SHG will contact the beneficiaries of the scheme to transfer the stored grain to the PDS shop or the place of utilization. For this purpose, they can be paid adequate transportation costs which will be an additional income for them.
 - After the grain is supplied to the government system, final payment will be made at the existing rates if the prices

are above the minimum support price (MSP). This will not only generate extra earnings for the beneficiaries but also motivate them to store grains in ambient conditions.

The requisites

The scheme can be started as a pilot project in some areas, basically those which have limited/poor public transport system. The details of the requirements are as under:

- A government agency which will be responsible for monitoring the scheme.
- Establishment of SHGs at the panchayat level.
- Enlistment/opening of bank accounts for the beneficiaries.
- Strengthening of storage facilities of the beneficiaries by supplying them with storage bins and conducting awareness campaigns on stored grain protection technologies.
- Development of grain hubs that will eventually transform into panchayat agricultural produce management hubs.
- Real estimates of grain requirements under the different government schemes running in the area.
- Real estimates of the production capacity of the beneficiaries.
- Quick and timely payment system for the beneficiaries.

The expected results

Several outcomes from this scheme can be foreseen. These include:

- Creation of job opportunities for educated youth through SHGs.
- Creation of ‘agro-activity hubs’ at the panchayat level that can be accessed for dissemination of several messages and technologies in the future.

- Preventing beneficiaries from taking loans for purchase of inputs.
- Timely and efficient input management by the beneficiaries thereby increasing their yields.
- Savings in the cost of transportation of grains from production to storage sites and back to villages.
- Positive psychological attitude as beneficiaries can store their own produce.
- Build-up of storage capacity and facilities from a wider perspective.
- Avoidance of the losses occurring at bulk storage godowns.
- Supply of locally adapted varieties of grains that suit the taste and cooking habits of the target regions.
- Conservation of locally available agro-biodiversity in major grain crops.
- Promotion and adaptation of new high yielding varieties suited to local needs.
- A mix of different grains will support nutritional needs.
- Quick and easy supply of grains in cases of emergency.
- It will be a major step towards the Food Security Mission.

Conclusion

The proposed scheme can be framed and debated from the larger perspective of saving grains from the losses which occurred in recent times. Any scheme for grain management needs to encompass the issues of decentralization, reduction in handling costs, involvement of a larger number of the rural mass and self-sustaining frameworks in order to become successful and effective.

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