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The Agricultural Supply Chain in India: Opportunities and Prospects

Though the agriculture sector in India is in distress, there is no doubt that the dynamics of the sector is changing. However, the rural non-farm sector has become an increasingly important source of employment, given the vulnerability of agricultural activities to the natural disasters, global warming and climate change effects. There is diversification of sources of income among rural households that is happening which is very welcome. But are credit institutions able to meet the credit demands of smallholder farmers and are these credit instruments suitable for the multipurpose requirements of rural households? Are we able to come up with multi-sectoral products which can meet rural credit requirements? Is the rural infrastructure capable of meeting the post-harvest requirements of smallholder farmers? Are there enough mandis, haats, shandies and agri-markets to meet the requirements? Are there enough agro-industries, rural warehouses / cold storages to ensure a robust rural economy? So many questions and inadequate answers!

There is a need to re-think and re-invent our approach and promote comprehensive household-based income generating activities and enable the poor to innovate and take initiatives to secure their fragile livelihoods. There are so many other issues including loan waivers for which we have to find out solutions. Of course, problems will crop up, but we have to live with them and find out solutions to overcome them.

The advent of organised retail chains coupled with the rise in disposable incomes, has triggered a rapid and significant change in the demand preferences of consumers across India. Not only has this change led to a rearrangement in the contents of the household food basket in both urban and rural India, but has also brought about much greater sensitivity to quality, variety and brands in the food market. The major changes needed in the Produce Value chain are for products like Pulses, Cereals, Oilseeds, Fruits and Vegetables and it remains to be seen whether the dietary requirements of the younger people have actually changed. To cater to the changes on the demand side, the supply chain for food has to make rapid strides so that safety, traceability and availability of quality food products are ensured all round the year. Organised retail (though as yet only 3% of the total retail market) is expected to double its share every three years or so and therefore is likely to play a profound role in influencing the nature of existing agricultural markets. Another game changer on the horizon is the proposed National Food Security Bill, which will require the sourcing of huge volumes of foods from domestic producers. Traditional production and supply arrangements are unlikely to prove adequate in meeting challenges posed by these two major developments. Unless there is urgent intervention in aggregating producers through grass-roots level farmers' institutions, India is unlikely to achieve required scale-up in production or leverage it to the advantage of all stakeholders, especially farmers, our primary producers. The value chain in Indian agriculture is replete with numerous intermediaries, most of which are predatory in nature and add negligible value to the farm produce but take away a major chunk of profits.

High levels of wastage, low returns to producers, volatility in supply and prices for consumers and poor quality orientation are ubiquitous in perishable commodities. Estimates of the wastage of perishables such as fruits and vegetables range from 18-40%, depending on distance from markets and cold storage availability, clearly indicating a highly inefficient system. Wide fluctuations in quantum and quality of horticultural produce resulting from varying levels of wastage and sophistication of handling systems, lead to increased information asymmetry in the supply chain, allowing intermediaries to gain disproportionately at the expense of both consumers and producers. The total lack of transparency in major fruits and vegetable markets is another problem that ensures that middlemen rule and receive a major portion of the trading profits while the farmer gets a negligible profit despite bearing the production risks and market price risks!

Barring the example of AMUL in the dairy sector, value chain integration in perishables and other high value agricultural produce, is largely non-existent or sub-optimal. Unless farmers are organised and can control a greater portion of the value chain, possibly up to the stage of marketing and distribution or at least up to processing stage, producers and consumers will continue to play into the hands of the rapacious intermediaries and marketers who have contributed precious little by way of capital investments and improvements for reducing wastage of perishable produce. They would prefer this chaotic system to be perpetuated till infinity so that their stupendous margins remain intact. Partnerships between farmers' groups and market players operating at the critical last mile section, could unlock hidden synergies that can be improved through better links with input suppliers, financial institutions and research bodies. This convergence can lead to better targeting of government expenditures on agricultural subsidies and achieve better outcomes for public policy. Israel is one country totally geared to remain ahead of the High-value Export market requirements despite a hostile environment, a very hostile climate and very less water availability. Overall, a collaborative effort between the Government, farmers and corporates in agriculture, is likely to raise the rate of agricultural GDP growth, thereby directly impacting rural poverty and would be able to increase farmers' financial margins appreciably!

Key Bottlenecks in Agricultural Value Chain

Fragmentation in Supply Chain: Most small and marginal farmers in India are price-takers. Their contact with "markets" is often limited to dealing with a produce collector or to sales at the local/village market and district market. The typical value chain for most agricultural produce is crowded by a large number of players operating all along the chain result in weak farm-firm linkages. Producers' share in wholesale price of perishable commodities continues to be small (about 35 percent) with the the major share going to market intermediaries as marketing cost.

Undifferentiated Produce: Agricultural produce coming from farmers remains largely undifferentiated till it reaches the processor. As a result, the prices of unprocessed farm produce are largely controlled by intermediaries who are able to charge more for their minimal incremental contribution made towards grading or quality improvement. Most of the farm produce retains its commodity nature till it is processed and branded, obviating any scope for farmers to exercise bargaining power over buyers of their produce.

Lack of Decentralisation in Post-Harvest Infrastructure: A good number of facilities exist for post-harvest value-addition in agriculture. The ownership and location of these facilities are usually favorable to large farmers, intermediaries and traders but not to the small and marginal farmers who deal in small volumes and for whom it is not feasible to carry their produce beyond a certain distance. In case of horticulture and dairy produce, distance of chilling/cold facility from the point of aggregation, has immense impact on the quality of final produce/product.

Low Focus on Direct-to-Consumer/Producer-Oriented Markets: Barring a few exceptions like Rythu Bazaars, markets for direct sale of produce/products of farmers and their enterprises are non-existent. Of the various components of the marketing mix, producer enterprises find themselves disadvantaged most in terms of the place. A producer-oriented enterprise like Amul, Mother Dairy or Fab India is able to extract premiums for farmers/artisans through retail marketing systems built up over time at cost, facing threats from existing middle-men who have to be ousted so that primary producers get a fair deal!

Absence of Farmer-friendly Farm Equipment and Agricultural Support Services: Given that most farmers do not own all the necessary machinery for efficient farm operations and quality improvement, their economic output is usually suboptimal as profitability is a function of both quality and efficiency. Farm mechanisation services such as the one offered by Mahindra Shubhlabh are not able to address the needs of small and marginal producers. Enhancing shelf life and hygienic packing of produce by

cleaning, steaming and waxing of fruits, could improve farmers' incomes, drastically. The utility and quality of essential agricultural support services which include market intelligence, farm credit, crop insurance, quality certification etc. also leave much scope for improvement.