



02.20



AGRICULTURAL MARKETS IN INDIA : MANAGING CAPITAL LEAKAGES IN COMMODITY LINKAGES

SHUBHAM SINGH

DISCUSSION PAPER



TABLE OF CONTENTS

1. ABSTRACT	1
2. INTRODUCTION	1
3. POLICY INTERVENTIONS AMID PERSISTING ISSUES	2
4. STATE MONOPOLY AND RISE OF MIDDLEMEN	2
5. FRAGMENTED MARKETS AND HOARDING ISSUES	4
6. THE MODEL APLM ACT AND ENAM	4
7. POLICY REVITALISATION: PLUGGING THE GAPS	6
8. CONCLUSION	8
9. BIBLIOGRAPHY	9

Cover Photo Courtesy : Christopher Fynn

*If you have any suggestions, or would like to contribute,
please write to us at contact@sprf.in.*

© Social and Political Research Foundation™

ABSTRACT

The agriculture sector in India has witnessed continued distress in recent years with net investments in agricultural assets decreasing along with the sector's share in the economy. Farmers have been grappling with stagnant incomes in the absence of true price realisation at the farmgate level, while paying a high retail price for other commodities as consumers. There are issues in the supply chain of agricultural commodities that have contributed to the existing income-expense gap for the farmer such as an overbearing presence of middlemen, fragmented agricultural markets, intentional hoarding, and multiple commissions and licenses. These issues have persisted even though several agricultural produce marketing regulations have been passed over the years by governments at the state and centre. This paper takes a detailed look at what ails agricultural marketing in India and key policies that have been enacted in response. It also attempts to analyse the persistence of some major issues in agricultural marketing and suggests alternatives to achieve true farmgate value of produce for farmers.

INTRODUCTION

The agricultural sector in India employs nearly half of the population of the country, yet its share in the GVA (Gross Value Added to the economy) was only 17.1% in 2017-2018. In comparison, the industries and services sectors contributed 29.1% and 53.9% respectively (PIB 2018). The agriculture sector has been in distress for a few years now, which is reflected in the sector's decrease in gross fixed capital formation from 17.7% in 2013-14 to 15.2% in 2017-2018 (PRS 2019). Simply said, the net investments in fixed agricultural assets, such as equipment and machinery, have dropped over the years, with more than half the producers expressing the desire to give up farming as a source of income (Sood 2018).

This state of affairs is a consequence of the numerous challenges the Indian farmer faces during the process of production. Many of these challenges pertain to the value chain, which includes problems faced in securing inputs such as the purchase of seeds and access to irrigation and credit facilities, among others. However, challenges also arise in the supply chain of agricultural commodities, primarily in the form of distortions in the movement of agricultural produce from farmgate to consumers.

There is a clear difference in the farmgate value¹ and market value of agricultural produce. This can be observed, for instance, through a comparison of the average wholesale selling price of onions in Delhi in December 2019, as researched by this author. Onions were being sold at INR 65/Kg at the Azadpur-AP-MC Mandi, whereas the average retail price paid by consumers in the National Capital Region (NCR) was around INR 120/Kg at an East Delhi neighborhood. This disconnect in the prices paid by the consumer and that received by the producer is caused due to a leakage of capital in the supply flow. This results in the failure of true price realization by the farmer for his produce.

¹ The farmgate value of a cultivated product in agriculture is the net value of the product when it leaves the farm, after marketing costs have been subtracted. Since many farms do not have significant marketing costs, it is often understood as the price of the product at which it is sold by the farm.

Farmers, after selling the produce at a low selling price, also buy commodities at increased retail prices as consumers themselves, creating an income-expense gap for them (Jani 2019). These gaps between the input cost to the farmers, income earned, and the expenses borne by them have contributed to the overall agricultural distress the country is facing. It is to fill these gaps and correct persistent inequalities in capital flow, that a need for intervention either by the state or the market has been realised over the years.

| POLICY INTERVENTIONS AMID PERSISTING ISSUES

Policies to regulate markets, prices, and to check inadequacies have been introduced by several state and central governments in India post-independence. As agricultural marketing is a state subject in the Indian Constitution, Agriculture Produce Market Regulation (APMR) Acts were first adopted by several state governments in the 1960s. The Essential Commodities Act (ECA) of 1955, the Model Agricultural Produce Market Regulation Act (APMC) of 2003 and the Agricultural Produce and Livestocks Marketing Act (APLM) of 2017 have been key central government policies in this regard.

| STATE MONOPOLY AND RISE OF MIDDLEMEN

Under the APMR system, 'Regulated Markets' or APMC Mandis were constituted, mandating the sale and purchase of notified agricultural commodities in specific market areas. It also provided the required infrastructure and mechanisms for the sale of agricultural produce in a transparent manner where prices were to be determined by open auctions. The APMCs, though successful in creating orderly and transparent marketing conditions to ensure a fairer deal to the farmers, were established at a time when private trade was underdeveloped, exploitative and controlled by mercantile power (Acharya 2004; Chand 2012). As the country achieved self-sufficiency in food production (see Table 1), the system began losing its hold. In the process of regulating markets, the system ended up creating a marketing monopoly of the state, which restricted new entrants such as the private and the cooperative sector. This ended up reducing competition and creating a market filled with inefficiencies, bureaucratic control and politicisation (Chand 2012). Also, the market facilities could not keep up with the pace and quantity of arrivals due to a failure of demand-signalling² of the produce.

² A demand signal is a message issued within business operations or within a supply chain to notify a supplier that goods are required, and is therefore a key item of information for demand planners within a business.

Table 1: Per Capita Net Availability of Foodgrains (In Kgs Per Annum) in India

Year	Rice	Wheat	Other Cereals	Cereals	Gram	Pulses	Food grains
1951	58	24	40	122	8.2	22.1	144.1
1956	68.7	22.5	40.7	131.9	10.6	25.7	157.6
1961	73.4	28.9	43.6	145.9	11	25.2	171.1
1966	59.1	34.8	37.5	131.4	6.7	17.6	149
1971	70.3	37.8	44.3	152.4	7.3	18.7	171.1
1976	68.5	29.1	39.2	136.8	7.4	18.5	155.3
1981	72.2	47.3	32.8	152.3	4.9	13.7	166
1985	68.9	50.6	32.1	151.6	4.7	13.9	165.5
1990	77.4	48.4	31.7	157.5	3.9	15	172.5
1991	80.9	60	29.2	171	4.9	15.2	186.2
1992	79.2	57.9	21.5	158.6	3.7	12.5	171.1
1993	73.4	51.2	31.6	156.2	3.9	13.2	169.4
1994	75.7	58.2	24.5	158.4	4.3	13.6	172
1995	80.3	63	23.7	167	5.4	13.8	180.8
1996	74.6	64.3	22.6	161.5	4.1	12	173.5
1997	78.1	65.4	26.6	170.1	4.5	13.5	183.6
1998	73.1	55.3	22.8	151.2	4.9	12	163.2
1999	74.2	59.2	23.1	156.7	5.3	13.3	170
2000	74.3	58.4	21.5	154.3	3.9	11.6	165.9
2001	69.5	49.6	20.5	141	2.9	10.9	151.9
2002	83.5	60.8	23.1	167.4	3.9	12.9	180.4
2003	66.2	65.8	17.1	149.1	3.1	10.6	159.7
2004	71.3	59.2	25.3	155.8	4.1	13.1	168.9
2005	64.7	56.3	21.7	142.7	3.9	11.5	154.2
2006	72.3	56.3	22.1	150.7	3.9	11.8	162.5
2007	70.8	57.6	20.3	148.7	4.3	12.9	161.6
2008	64	53	19.7	143.9	3.9	15.3	159.2
2009	68.8	56.5	23.3	148.6	4.7	13.5	162.1
2010	66.4	61.4	18.8	146.6	4.9	12.9	159.5
2011	66.3	59.7	23.9	149.9	5.3	15.7	170.9
2012	69.4	57.8	21.9	149.1	4.9	15.2	169.3
2013	72.1	66.8	19.2	158.1	5.6	15.8	179.5
2014	72.3	66.8	22.6	161.6	6	16.9	178.6
2015	67.9	61.3	28.4	153.8	5.1	16	169.8
2016	67.2	72.9	26.1	162	4.8	15.9	177.9
2017(P)	69.3	70.1	30	164.9	6.3	19.9	184.7

Source: Ministry of Agriculture and Farmers, GoI

Due to underdeveloped mechanisms, farmers were forced to rely on middlemen for marketing their produce. They also struggled to meet their mandatory credit requirements, alongside the payment of several other market charges such as commissions for the commission agents, statutory charges and taxes levied on conducting trade in Mandis. Gradually, this helped the trading class gain control over the market allowing for the consolidation of power by agents in Mandis who could organize themselves in large numbers. This, in turn, allowed them to influence market policies to their benefit by dictating terms to producers and restricting the entry of new players, thus removing competition (Acharya 2004). Over the years, declining competition has time and again led to an increase in prices for consumers. However, the profits from such increases are generally captured by middlemen and not passed on to the farmers. Some ways the trading class controls the pricing at Mandis include rejecting direct payment to producers³ which would bypass commission agents; and determining prices through nontransparent methods (Chand 2012).

I FRAGMENTED MARKETS AND HOARDING ISSUE

One of the major problems with the APMC mandis in each state is that they largely remain disconnected from the APMC markets outside their states, restricting inter-state trade connections. Farmers lack information about demand coming from other parts of the country, and owing to mobility restrictions, are unable to sell directly to distant markets. Small and marginal farmers residing in remote places are often excluded from participation in the APMC markets due to financial and time constraints. For example, farmers in Maharashtra sell onions at a farmgate value of INR 8 per kg. This goes through a number of intermediaries to reach consumers in Delhi who pay a market price of INR 99 per kg (Mahapatra 2018). There is a severe lack of local market hubs where small farmers can sell their produce without relying on agents, highlighting the need to shorten the supply chain by establishing smaller agricultural markets without intermediaries in rural areas (Suman 2019).

In addition, the ECA, which was enacted to regulate production, supply and distribution of a basket of essential commodities and make them available to consumers at fair prices, has had unintended consequences for farmers. The ECA restricts stockpiling or hoarding of commodities that are short in supply by notifying stock-holding limits. The Act mandates traders, wholesalers and retailers to immediately sell into the market any amount of stock held over and above the mandated quantity in order to avoid price spike. However, as commodity stockpiles are subject to the amount of production, it is hard to differentiate speculative hoarding from genuine shortages. In cases of genuine shortages, price hike is a supply-side issue. However, price hikes due to intentional hoarding is a trading malpractice that robs farmers of the incentive to keep up production by triggering a demand-supply disequilibrium (Mahapatra 2018).

³The central government asked the states to directly pay farmers for cereals procured by it during 2010-11 to avoid unnecessary middlemen. The move was strongly opposed by arhtiyas (agents), but supported by farmers. According to a survey conducted at Punjab Agricultural University, Ludhiana, 93% of the farmers expressed a preference for direct payment and 84% wanted the arhtiya system abolished. The state government, rather than siding with the farmers, took recourse to the APMC Act to protect the interests of arhtiyas. According to media reports, the Chief Minister went to Delhi a number of times to plead with the Prime Minister and the agriculture minister to stop direct payments to farmers (Unnamed Author 2012).

I THE MODEL APLM ACT AND ENAM

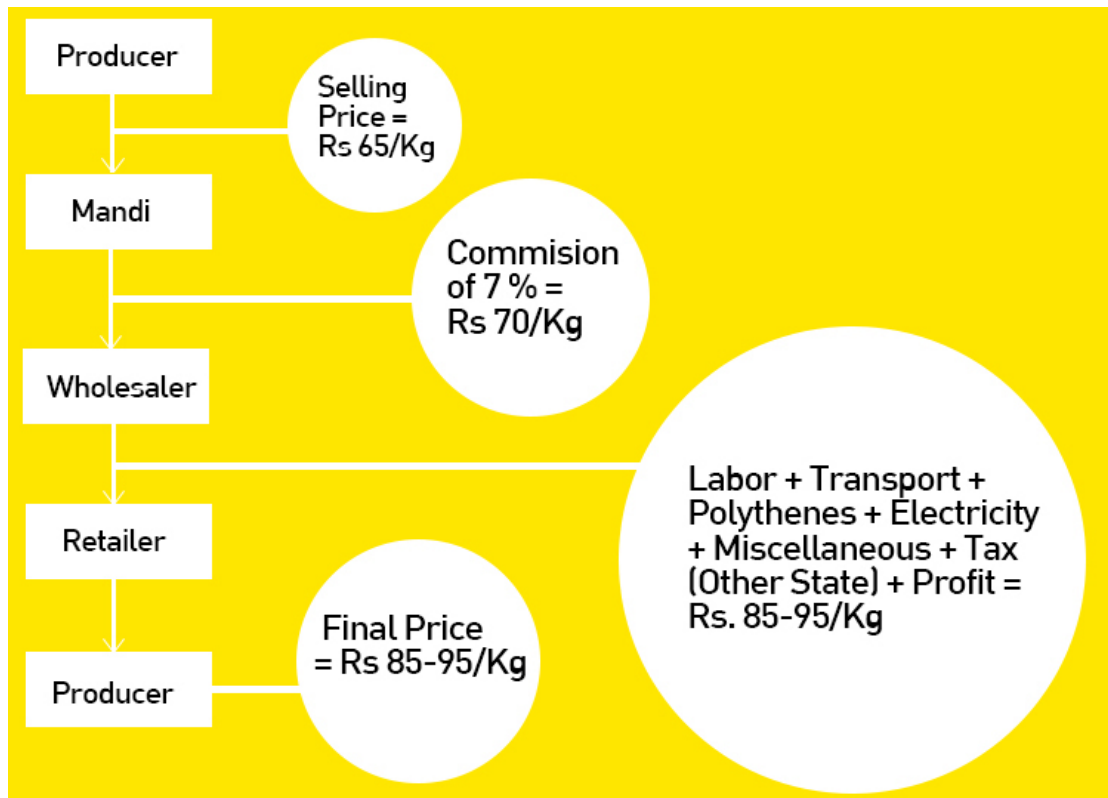
It was in this context that the Model APLM Act was introduced in 2017. The Act has provisions to induce private investments in agricultural markets, facilitate the entry of new players, create greater competition and reduce collusive monopolies. It replaces the existing system of multiple commissions and licences with a single tax and single licence regime. It also provides for capping the commission agents' fee at not more than 4% and 2% for perishable and non-perishable produce, respectively. The Act also proposes a more efficient market intelligence system which signals the demand for commodities from all parts of the country, by abolishing market fragmentation, removing the concept of notified market areas and promoting direct interface between farmers, processors and exporters.

In order to link the APMC markets fragmented across the country, the central government also rolled out a common online platform for agricultural trading in the form of the National Agricultural Market or eNAM in 2016. Through eNAM, farmers, cooperatives and buyers can directly transact with each other. The prices of commodities are decided by a transparent online auction, where the farmer or the cooperative has the right to reject a certain bid. The portal helps check market imperfections such as prices prevailing below the MSP in the harvest period and shooting up subsequently. It also promotes diversification of crops which were restricted earlier because of unattractive prices (Chand 2016).

However, many states have carried out only partial reforms even after the passing of the APLM Act and the setting up of eNAM. Several APMC Mandis aren't equipped with the required infrastructural facilities. For example, as observed during a field visit, traders and farmers at the Azadpur APMC Mandi still rely on manual methods of checking the quality of produce. Manual checking is patently unreliable as it is done by merely examining a sample of the produce from the top of the storage, even though there might be lower quality produce at the bottom.

Malpractices by agents and traders are still commonplace. They often indulge in offline trading activities and upload the data for the same on the e-platform post transaction. This completely defeats the purpose behind introducing the e-platform (Nirmal 2018). As told to this author by a farmer at Azadpur Mandi, there have been instances of collusion between the traders and the agents during the process of auctioning, where market prices are fixed in advance, putting the farmers selling at these Mandis at a disadvantageous position. Numerous costs are still added to a commodity by various intermediaries before it reaches the final consumer. For instance, Figure 1 includes the price breakup of 1 Kg onion in the month of December 2019 at APMC-Azadpur Mandi.

Figure 1: Price breakup of 1 Kg Onion at Azadpur Mandi



I POLICY REVITALISATION: PLUGGING THE GAPS

The Committee on Doubling Farmers' Income established in April 2016 under the stewardship of Dr. Ashok Dalwai by the Ministry of Agriculture and Farmers Welfare has recognized long-standing issues faced by Indian farmers and submitted its report in several volumes with possible interventions to increase farmers' income. As part of its report, the committee has recommended promotion of alternative marketing systems to address agricultural distress stemming from problems in the existing marketing and trading systems. Some of these are:

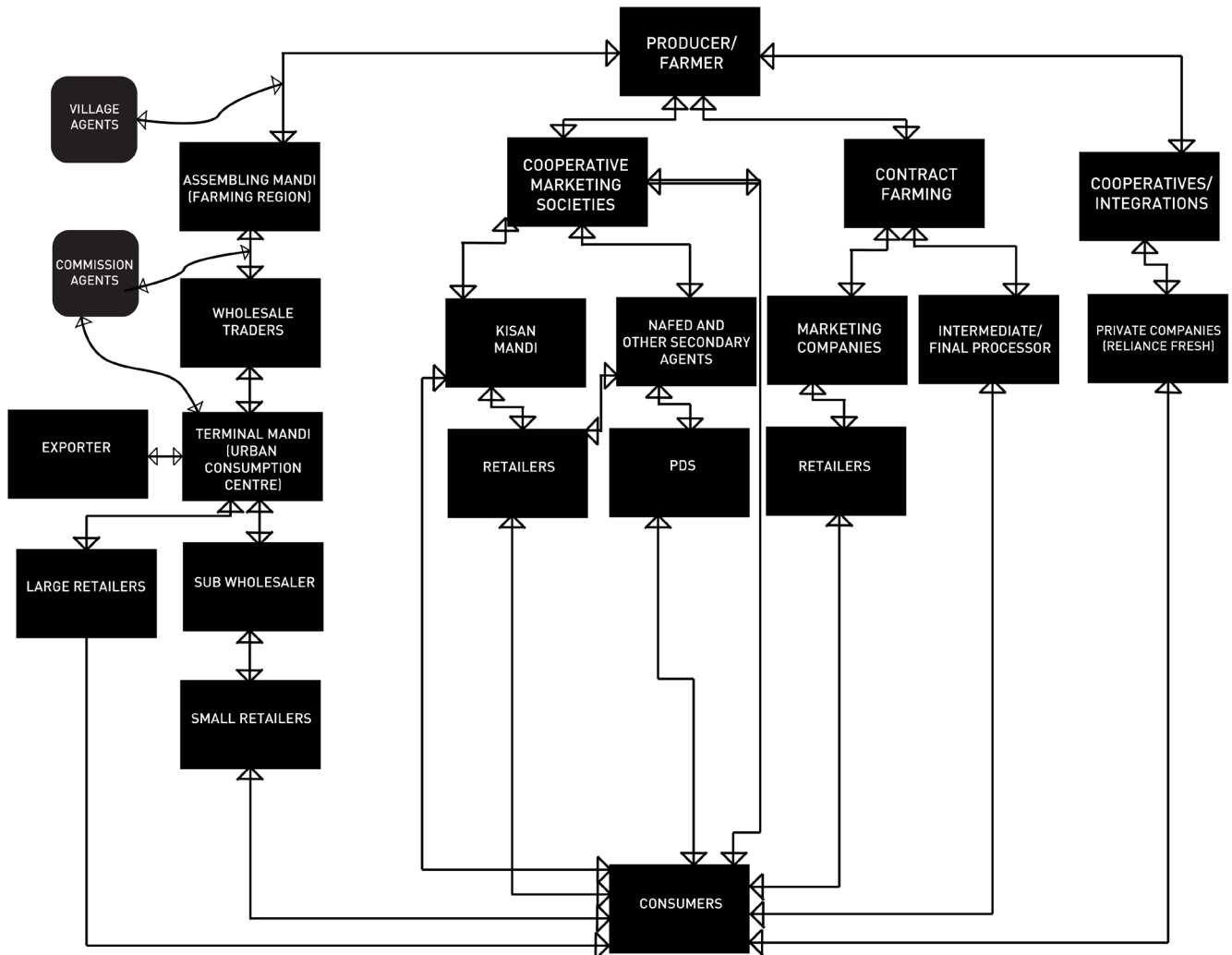
- **Direct marketing**, where farmers directly transact with the end consumers through two distinct channels, namely, farmers' markets and direct sourcing by processors and exporters. These channels have helped to solve the problem of a fragmented supply chain by facilitating quicker movement of the produce from farmgate to consumers. This allows farmers to skip multiple layers of intermediaries and having to bear several market and service charges.
- **Contract Farming**, which helps farmers vertically integrate with organised market channels and respond to a more regular and consolidated demand. There is also an assured exchange of payment. Moreover, such marketing systems help link small and marginalised farmers to large scale producers. There are also reduced risks from unplanned transactions and it opens up a way for farmers to seek institutional credit.
- Opening up of **private wholesale markets**, where private players can directly trade with farmers, free

from the hassle of an APMC mandi. Moreover, several non-APMC markets have also been formed, such as the Delhi Kisan Mandi set up by the Small Farmers Agribusiness Consortium (SFAC), an autonomous society promoted by the Department of Agriculture Cooperation & Farmers Welfare under the Ministry of Agriculture and Farmers Welfare.

- **Organised retailing**, where merchandising agencies such as small grocers, street hawkers, and retail outlets such as Safal, among others, forward distribution linkages to meet retail needs of consumers. This model works through a daily supply-chain transaction on a need-based collaboration with a consolidated demand of commodities.
- **Farmer Producer Organisations (FPOs)** and cooperatives, which collectivise farmers to counter the effects of fragmentation in landholding and substantially reduce input costs. FPOs depend on collective decision making by using market intelligence to add important inputs in the value chain such as input supply, credit, processing, marketing, transportation and distribution. In addition, the collective strengthens the bargaining power of farmers to access various financial and non-financial instruments like services and technologies which helps reduce transaction costs.

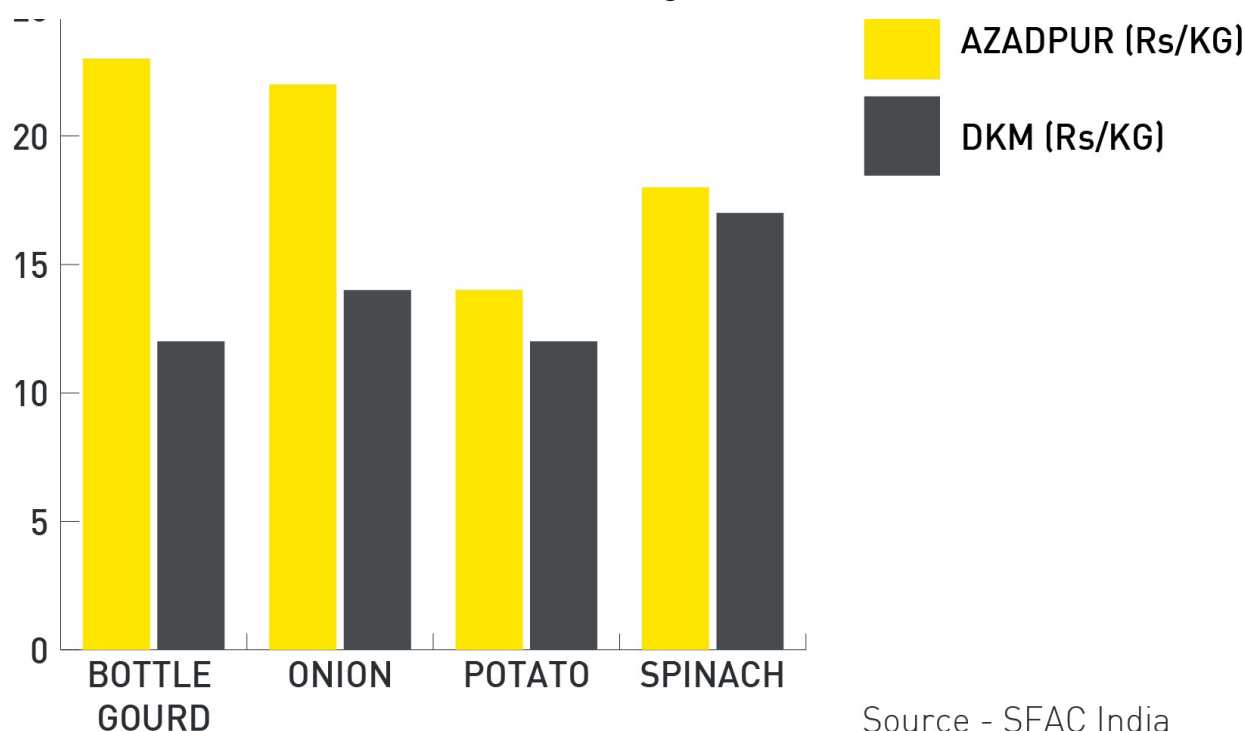
Figure 2 includes the various alternative marketing systems discussed above along with the traditional APMC system. As can be seen in the flowchart, the alternative supply channels are more efficient with fewer intermediaries. They not only ensure better selling prices for farmers, but also lead to more favourable retail prices for consumers. Through integration of these alternative systems with eNAM, the government could help the current marketing models - including state-approved APMC mandis - set up linkages with national demand-supply signals.

Figure 2 : Various Supply Channel in Argicultural Trade



The shift to alternative models such as non-APMC mandis is already proving to be beneficial for the farmers as can be seen in Figure 3, which compares the procurement prices of several commodities at the Delhi Kisan Mandi (DKM) and the Azadpur APMC Mandi during August 2019 (SFAC n.d.). When the market gets more competitive with an increase in promotion of such alternative models, surely farmers will be able to realise significantly higher prices for their produce.

Figure 3 : Comparison of Price of Delhi Kisan Mandi with Azadpur Mandi Modal price in the month of August 2019



Enhanced competition through promotion of alternative supply channels, although having a positive spillover on the farmers by offering better prices, puts the state at a position of disadvantage at the procurement stage. This could be particularly problematic when it comes to meeting the needs of India's food security programme. However, the state can take certain price policy measures to deal with this issue. For instance, a reasonable Minimum Insured Price (MIP) can be offered which reflects the dynamic market prices of agricultural commodities in districts where there is a production surplus (Chand 2012). This can be coupled with an effective procurement mechanism. The Food Corporation of India (FCI) currently procures food grains at the government-mandated Minimum Support Price (MSP) for the purpose of food security by setting up its own procurement centres in close proximity of APMC mandis (Food Corporation of India n.d.). The FCI can do so even by participating in the mandi auction, albeit with an effective price mechanism/policy which can make it viable for it to procure food grains. The FCI can also participate in contract farming by issuing supply calendars and supply tickets directly to farmers.

As much as there is a need to reform and replace existing market regulations to increase efficiency of the agricultural supply chain, there is also a need to reform weak value chain linkages. To this end, some key reforms could be: encouraging sustainable use of inputs, better access to credit, particularly long-term loans, and rolling back incentives that encourage overuse of scarce water resources (OECD 2018).

| CONCLUSION

As Efficient and fair marketing of food grain commodities is an integral part of ensuring higher income for farmers. There is a pressing need to liberalise the agricultural markets in order to increase competition, incentivise farmers to maintain a stable production rate, and diversify the commodities produced.

The emergence of alternative marketing models such as contract farming, FPOs, direct marketing, and non-APMC mandis among others, has proven to be beneficial in better price realisation. They also connect farmers to areas with higher demands, especially those with small and marginal land holdings. Alongside supporting these models, the central and state governments need to invest in the development of infrastructural facilities for warehousing and quality check mechanisms at mandis. Keeping up the spirit of cooperative federalism, as part of which all states adopt the new APLM Act, is also crucial if the fortunes of farmers are to be changed.

BIBLIOGRAPHY

Acharya, S S, (2004). *State of the Indian Farmer: Agricultural Marketing*. New Delhi: Department of Agricultural and Cooperation, Ministry of Agriculture, Gol.

Chand, Ramesh, (2012). "Development Policies and Agricultural Markets" *Economic and Political Weekly* 47(52): 53-63.

Chand, Ramesh, (2016). "e-Platform for National Agricultural Market" *Economic and Political Weekly* 51(28): 15-18.

Food Corporation of India, (n.d.). "Overview". Accessed November 11, 2019. <http://fci.gov.in/procurements.php>

Jani, Trupti, (2019). "The pain point of Indian agriculture" *Times of India* January 28, 2019. <https://timesofindia.indiatimes.com/readersblog/agrinow/the-pain-point-of-indian-agriculture-1550/>

Mahapatra, Richard, (2018). "India needs 30,000 agri-markets to give fair deal to farmers" *Down To Earth* July 5, 2018. <https://www.downtoearth.org.in/news/agriculture/india-needs-30-000-agri-markets-to-give-fair-deal-to-farmers-59513>

Ministry of Agriculture and Farmers Welfare, (2017). *Agricultural Statistics at a Glance 2017*. Ministry of Agriculture & Farmers Welfare Department of Agriculture, Cooperation & Farmers Welfare Directorate of Economics and Statistics, Gol. <http://agricoop.gov.in/sites/default/files/agristatglance2017.pdf>

Nirmal, Rajakshmi, (2018). "Why the eNAM platform hasn't taken off despite all the fanfare" *The Hindu Businessline* January 11, 2018. <https://www.thehindubusinessline.com/economy/agri-business/why-the-enam-platform-hasnt-taken-off-despite-all-the-fanfare/article9776034.ece>

OECD, (2012). *Review of Agricultural Policies*. Trade and Agriculture Directorate Committee for Agriculture, OECD. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/CA\(2018\)4/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/CA(2018)4/FINAL&docLanguage=En)

PIB, (2018). *Contribution of Various Sectors to GDP*. Ministry of Finance, Gol. <https://pib.gov.in/newsite/PrintRelease.aspx?relid=186413>

PRS Legislative Research, (2019). *Economic Survey 2018-19 Report Summary*. India: PRS. <https://prsindia.org/report-summaries/economic-survey-2018-19>

Small Farmers' Agri-Business Consortium (SFAC), (n.d.). "Kisan Mandi". Accessed November 6, 2019. <http://sfacindia.com/Kisanmandi.aspx>

Sood, Jyotika, (2018). "India's deepening farm crisis: 76% farmers want to give up farming, shows study" *Down To Earth* March 12, 2018. <https://www.downtoearth.org.in/news/indias-deepening-farm-crisis-76-farmers-want-to-give-up-farming-shows-study-43728>

Suman, Saket, (2019). "Poor Farmers Get Only Rs 8/Kg For Onion. Why Does It Cost Us 99/Kg? Who Makes All The Profit?" *India Times* November 13, 2019. <https://www.indiatimes.com/news/poor-farmers-get-only-rs-8-kg-for-onion-why-does-it-cost-us-99-kg-who-makes-all-the-profit-500229.html>

Unnamed Author, (2012). "Unwanted Middlemen: Direct Payments to Help Farmers" *Tribune* February 11, 2012.

