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Agriculture Marketing

An Overview and Way Forward

A Knowledge Paper on Agriculture Marketing



A Knowledge Paper on Agriculture Marketing

Dr.S.K.Pattanayak
Secretary (A,C&FW)



भारत सरकार
कृषि एवं किसान कल्याण मंत्रालय
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Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture, Cooperation
& Farmers Welfare

MESSAGE

The development of agricultural marketing facilities is of prime importance for the linear growth of a comprehensive and integrated agricultural marketing system in the country. Recognizing the need for carrying out reforms in this sector Government of India has taken various policy initiatives for creation of a unified agriculture market.

The Government has been making strenuous efforts and focusing on introducing progressive marketing reforms which can contribute towards the goal of doubling farmer's income. The launch of e-NAM, an electronic trading platform and linking it to more than 400 markets will be a game changer in the days to come. To modernize the supply chain, the Government has been promoting innovative marketing channels, e-marketing etc. and it is expected to provide farmers with additional marketing options resulting in reasonable income gains.

With the objective of creating awareness about on-going reforms in Agriculture Marketing sector, the initiative of FICCI in organising a National Summit on Regenerating Agriculture through Smart Marketing Solutions deserves commendation.

I am certain that the efforts of FICCI in providing us a roadmap in bringing about holistic policy initiatives towards the vision of doubling farmers' income will be helpful in crafting suitable policies by the Government.

I wish FICCI great success and congratulate the organisers for taking such a significant initiative.

(S.K.Pattanayak)

Date: July 7, 2017

अपर सचिव
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Additional Secretary
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Message

Indian farmers have been registering sustainable production enhancements and serving the nation's food and security needs. It is now time to pay for their services, by facilitating monetization of their produce adequately. It is, therefore, necessary to build a robust agricultural marketing structure in the country. Recognizing this critical need, Government of India has been making several policy initiatives and has brought out a model Agriculture Produce and Livestock Marketing (Promotion and Facilitation) Act, 2017. It provides for alternate marketing channels and alternate online trade platforms to create competition and transparency for a healthy price discovery. Government of India's initiative on creating an integrated National Agriculture Market, riding on an electronic platform is a first major step towards unifying the country's fragmented agriculture market and disintermediation of the market chain . It is hoped, that over the next few years, the farmers will come to benefit from market efficiency and enjoy an optimal share in the farmer's rupee across the cafeteria of crop commodities.

2. We are happy, that FICCI is organizing a National Summit on Smart Agriculture Marketing Solutions – to double farmers' income on 14th July, 2017 bringing to the fore recent policy developments in agriculture marketing and the potential benefits that they hold for various stakeholders. The initiative of FICCI to bring out a comprehensive study report based on the discussions during the Summit will, I am sure, provide important inputs for policy interventions in the agriculture sector.

3. My heartiest congratulations to FICCI on this timely and wholesome initiative and best wishes for a meaningful dialogue across the board. May the cause of Indian farmers be well served and the vision of the Hon'ble Prime Minister to double farmers' income by 2022 become a reality.

A Dalwai 11/07

Dated the 11th July, 2017

(Ashok Dalwai)

MESSAGE



A Didar Singh

Secretary General
Federation of Indian Chambers of Commerce and Industry

Agriculture plays a critical role in India's story since, as an economic sector, it employs the largest number of people. As the marketable surplus of a farmer increases, the need to have efficient markets become crucial. A strong and transparent agricultural marketing system is imperative for ensuring remunerative returns to the farmers. It needs to be reiterated that without liberalizing the current marketing scenario, farmers are unlikely to benefit from the growing consumer preference.

FICCI has come out with an interesting Report to highlight, discuss and debate the issues in agricultural marketing. Building on research and experiences of stakeholders engaged in agriculture marketing system, the report also identifies interventions of two kinds – institutional development and investment in infrastructure.

I am sure the Report will be of interest to policy makers, industry players as well as academia.

MESSAGE



Vinay Mathur

Deputy Secretary General
Federation of Indian Chambers of Commerce and Industry

There has been a consistent increase in the production of food grains and commercial crops in India. The irony of abundant agriculture production is that farmers tend to earn less per unit output due to excess supply in market. Profitable marketing of this produce is indispensable for safeguarding interests of farmers.

However, management of the output side of the agricultural system has become a great challenge as it is complex, diverse and requires heavy investment with long term returns. It is in this context, there is a need for newer approach to strengthen Agriculture marketing system, where the synergies of both the public sector and the private sector are harnessed for the benefit of farmers.

The country needs to develop infrastructure for post-harvest processing, storage, transport, cold storage, and value addition. The report highlights the way forward to keep in step with the changing needs of both farmers and agriculture markets.

I hope this Report provides the readers a futuristic roadmap for the Indian agriculture marketing.

MESSAGE



Shilpa Divekar Nirula

Chair, FICCI National Agriculture Committee &
CEO, Monsanto India Region

Agriculture is an important sector to fuel in economic growth and it needs to be made more attractive. By creating necessary framework for strengthening the entire agriculture value chain, the Government of India will not only help improve socio-economic condition of the nation's farmers, but will also enable Indian agriculture to become economically profitable eventually leading to more inclusive development. Enabling policies for access to inputs, credit, markets and innovations will result in increased productivity, profitability and growth. Further with changes in production scenario it is also necessary to have effective agricultural marketing reforms to ensure that the farming is remunerative. For the Indian farmers to remain competitive, both in the domestic and international markets, Agriculture marketing services will have to be strengthened. From this context, *I am very happy that FICCI in partnership with Ministry of Agriculture and Farmer's Welfare is organizing this National Agriculture Marketing Summit and look forward to the deliberations.*

India is currently witnessing major regulatory reforms that have the potential to transform Indian agriculture. The efforts to reform the prevalent Agricultural Produce Marketing Committee (APMC) Acts will provide farmers with access to markets, infrastructure and to bring transparency in price discovery. In addition, through the launch of e-NAM, Govt of India is planning to create a unified national market for agricultural commodities. Recent emphasis on Digitalization also ushers in a new avenue to strengthen market information system by involving private sectors in ICT services. This will be an exciting area for investment in agriculture sector. This summit, scheduled at a very appropriate time provides a platform to address the major challenges in Agriculture Marketing, such as - Institutional arrangement; technology upgradation; infrastructure development and Incentive structure. *It is heartening to note that FICCI has also conducted a detailed study to examine critical issues and challenges faced in creating a unified agriculture market. We hope that the findings of this study will be discussed in detail in this summit, and the deliberations will provide necessary inputs and suggestions to policy makers working on Agriculture marketing reforms.*

FOREWORD



T R Kesavan
President & Chief Operating Officer PS, CR, S&M
Tractors and Farm Equipment (TAFE) Ltd.

Smart Marketing Solutions – Imperative to increase farmers' income

In recent past, farmers have been tested by several controllable and uncontrollable factors which had adversely impacted agriculture of the country. Thus, I consider everything we as friends of agriculture do, should be aimed at providing solutions to help the agriculture sector deal with changing times it faces whilst always putting the farmer first. This is the time to apply our minds, collectively and innovatively to mitigate issues which hurt the Indian Agriculture. Strategies should be devised to deal with forward and backward linkages alike for assured results.

Today, while we forecast a full-fledged monsoon, with its probability to give good yields, the question that arises is “Will the farmer be able to sell all his produce on-time and without loss?”. This is where Smart Marketing Solutions has to be brought in.

In the agriculture sector, constant application of latest ideas and better technologies is essential to enhance economic well-being of the farmer. The bane of Indian agriculture is not lack of technology or R&D efforts; it is the inadequacy and inefficiencies in the dissemination of relevant information to the farmer or in general terms the “last mile connect”. With latest trend, Information and Communication Technology (ICT) in agriculture has proven to be a driving force in the development process. Internet of Things (IOT), Big Data and Smart Farming solutions combined with smart marketing solutions will revolutionize the farming industry, and will make it arguably more important than ever before in the next few decades. I appreciate the first step taken by Government of India, by electronically integrating APMC through eNAM.

While we talk about technological intervention in Indian Agriculture, we should also agree to the fact that Indian Agricultural marketing system is distinct in terms of heterogeneity, multifunctional and traditional and no one-stop solution will work in all its geographies. A studied approach along with enabling environment for investment, innovation and development will ensure betterment of this sector.

Industry is as always all set to join hands with Public sector and take the Indian Agriculture to next level.

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Executive Summary



Executive Summary

Marketing of agricultural produce is an important economic activity as it needs to balance the affordability and availability of food for consumers with sustained improved incomes to farmers. Although the marketed surplus of the Indian farmer is as high as 90% or more in most commodities, the returns do not seem to be remunerative. Food inflation has been a major cause of anxiety in policy circles. The influence of global commodity cycles on domestic prices of agricultural produce adds to the complexity of the issues. This necessitates a critical review of agricultural marketing in multiple dimensions.

Agricultural marketing in India is a complex system with a mix of organized and unorganized sector practices. There are thousands of rural periodic markets, such as "haats", and more than 7000 government regulated APMCs, besides initiatives of numerous cooperative, development, and private corporate sector that engage with farmers directly or indirectly. The APMC system, established in the 1960s with the purpose of preventing exploitation of farmers and ensuring transparent market and trade practices has been attuned to trade in agricultural products such as staples. The government has also played an important role in price stabilization through market intervention. Numerous rules and regulations related to food safety, transportation, weights and measures, food standards, and so on were also brought in to protect interests of producers and consumers. However, over the the last one or two decades, newer needs such as increasing volumes of output, greater horticultural production, price disparity across markets have compelled a review of the APMC system.

The Ministry of Agriculture and Farmers' Welfare made attempts to overhaul the regulatory system by proposing the Model APMC Act, 2003 and Model State/UT Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017. Notwithstanding some reluctance on the part of different State governments, there now seems to be a consensus that agricultural marketing needs to be reformed and liberalized.

Studies have identified challenges in agricultural marketing as small scale of individual production which adversely affects marketing economies for farmers, poor market information systems, insufficient storage and post-harvest value-addition at the farm level, post-harvest credit, and high transaction costs for buyers and processors to engage with farmers. These issues can be addressed in a two-pronged approach – one, by developing institutions, and two, by investing in infrastructure. Institutions and infrastructure are not entirely separate and have synergistic impact on outcomes. This report proposes developing institutions to bring farmers together; establish direct links between farmers and retailers,

processors and consumers; and develop competitive and transparent markets. Farmer producer organizations, direct marketing initiatives such as contract farming, technology-enabled, seamless markets such as eNAM are some examples of such institutions. On the infrastructure side, the report proposes investments in all kinds of storage infrastructure; sorting, grading and quality certification infrastructure; broadband connectivity; and primary processing facilities at the farm level.

The report consolidates the above measures in four dimensions – **market integration** to overcome the problems associated with fragmented markets, **market access** to farmers, **market infrastructure** and **value addition** to raise returns to farmers and generate off-farm employment in the rural areas.

When a new paradigm has to be created, it is necessary to go beyond the obvious and develop on new ideas as well. The report draws from experiences of the industry and contexts outside traditional agricultural marketing archetype. Ecommerce, especially on the B2C side can be a potential instrument to bring producers and consumers much closer through disintermediation. A non-conventional marketing channel like E Trading platform can be helpful in bringing transparency in pricing by removing the information asymmetry between sellers and buyers and enable farmers to benefit from price discovery. Agricultural marketing can be made a tool for greater inclusivity and mainstreaming niche segments. Thus, the report also highlights the importance of India's northeast in organic produce and other products that may be in demand in other parts of the country. This can be a win-win situation for the producers in the northeast and consumers in the rest of India, besides export opportunities. The report also identifies developing market information systems to support farmers in taking buy or stock decisions. The report cites some exemplary initiatives that were taken up in this context sometime earlier. Branding of farm produce is one area of value-addition that can effectively enhance farmer incomes

Agricultural marketing has been in limelight recently for various reasons. The sector is in need of reforms that can usher in positive changes to affect both farmers and consumers. This report attempts to provide some answers to the many questions, drawing from various studies and inputs from the industry, experts and policymakers.



Agricultural Marketing in India – An Overview

1



1 Agricultural Marketing in India – An Overview

1.1 Importance of Agricultural Marketing

Agricultural marketing has been defined by the National Commission on Farmers as "a process which starts with a decision to produce a saleable farm commodity and it involves all aspects of market structure of system, both functional and institutional, based on technical and economic considerations and includes pre and post-harvest operations viz. assembling, grading, storage, transportation and distribution." In an expansive manner, this definition conveys the crux that the farmers goods reach the end consumer – either an individual or an organization such as a processor or exporter.

Agricultural marketing differs from conventionally known meaning of marketing which implies meeting the consumers demands or expectations. Since the major output of agricultural marketing is food, and food being a basic, life-sustaining necessity and a human right, ensuring the supply of food becomes an important part of the mandate of governments across the world. Hence, in most countries, the public sector has been involved in food management – either by creating markets for farm produce, directly procuring farm produce for subsequent supply and distribution, or in imports and exports of food and food products. Governments have played an active role in supporting agricultural research and extension to raise yields and production, besides a prominent role in accessibility of food to all kinds of consumers at affordable prices.

"In addition to the pure exchange of goods, agricultural marketing also serves a greater social purpose in terms of raising incomes in the rural hinterlands"

Agriculture plays a vital role as a provider of raw material to industry. Traditionally, agriculture was seen as the provider of the chief raw material for industries such as textiles, sugar and edible oil. Over a period of time, with the changing demographics, tastes and technologies, horticulture and animal products have gained more importance in providing raw material. Food processing, dairy processing and animal-based food processing have emerged as some of the major industries that owe their existence to the raw material originating on the farm. Thus, new dimensions have been added to agricultural marketing.

In addition to the pure exchange of goods, agricultural marketing also serves a greater social purpose in terms of raising incomes in the rural hinterlands, which sets off a virtuous cycle of demand generation for consumer and industrial goods, and various services. This spurs economic growth of the country. Rising rural and agricultural incomes also create avenues for investments in farms by farmers,

which helps raise production that can be exported. No wonder then that the entire economy actually waits for a good monsoon so that agriculture is bountiful, rural incomes rise and the economy as a whole gets a fillip.

Further, agricultural marketing also provides livelihood to a large number of intermediaries, market functionaries, and semi-skilled and unskilled labour across the supply chain. The externalities arising out of agricultural products lead to development of vibrant warehousing, transport, agricultural finance and insurance systems, each with its own set of complexities and dynamics that generate employment and value addition.

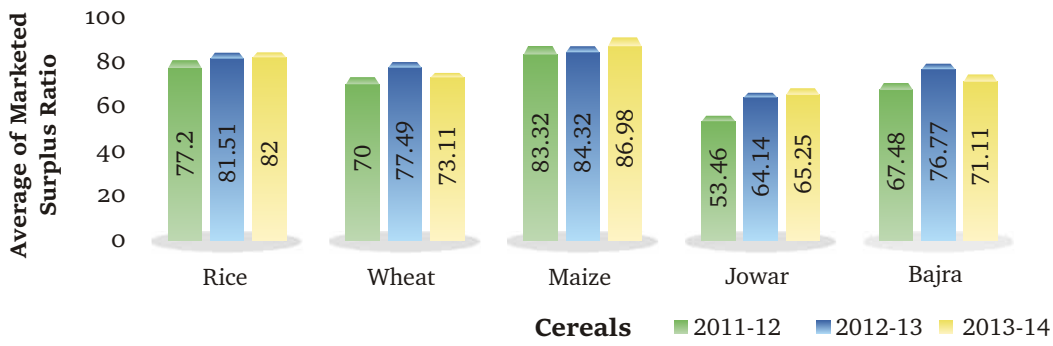
The role of agricultural marketing in economic development was summarized as a means for optimization of resource use and output management, raising farm income, expanding the market geography, supporting and driving the growth of agro-based industries, employment generation, enhancing economic growth and improving the living standards. Thus agricultural marketing assumes significance not only to meet the food and nutrition needs of the country, but also to support the growth of the economy as a whole (Acharya & Agarwal, 2011).

"As the marketable surplus of a farmer increases, the need to have efficient markets and marketing systems becomes important"

1.2 State of Agricultural Marketing in India

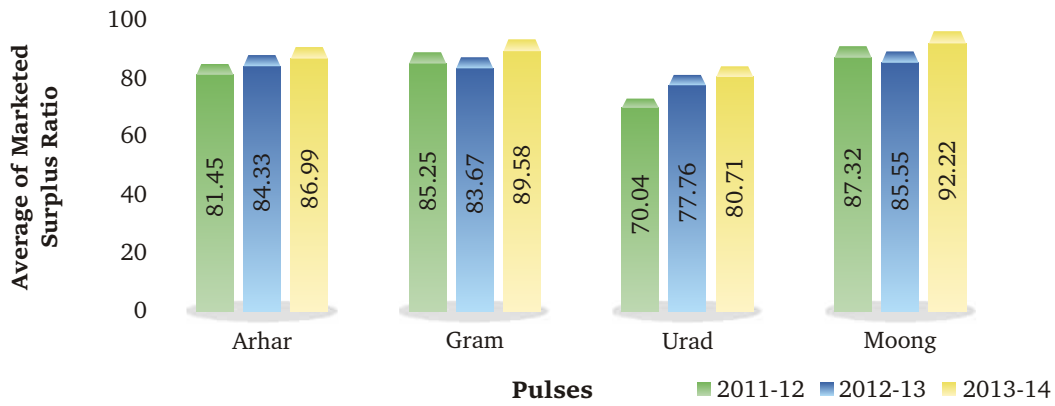
The basic driver of agricultural marketing is marketable or marketed surplus. As the marketable surplus of a farmer increases, the need to have efficient markets and marketing systems becomes important. The marketable surplus of agriculture in India has shown a healthy, growing trend. From being a subsistence enterprise in the pre-Green Revolution period to market-oriented, commercial production, Indian agricultural production has covered a great gap, leading to self-sufficiency as well as export capacity in most crops. The marketed surplus of some important crops has been presented below:

Exhibit 1: All India Average of Marketed Surplus Ratio for Cereals



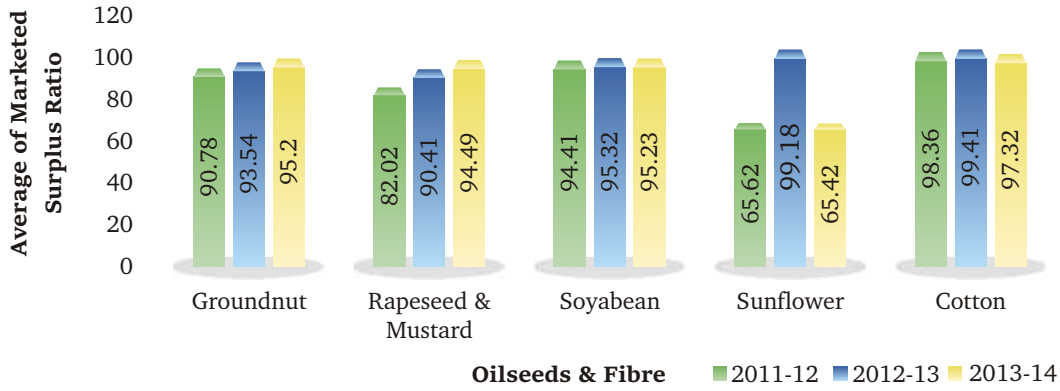
Source: Agricultural Statistics at a Glance 2015

Exhibit 2: All India Average of Marketed Surplus Ratio for Pulses



Source: Agricultural Statistics at a Glance 2015

Exhibit 3: All India Average of Marketed Surplus Ratio for Oilseeds & Fibre



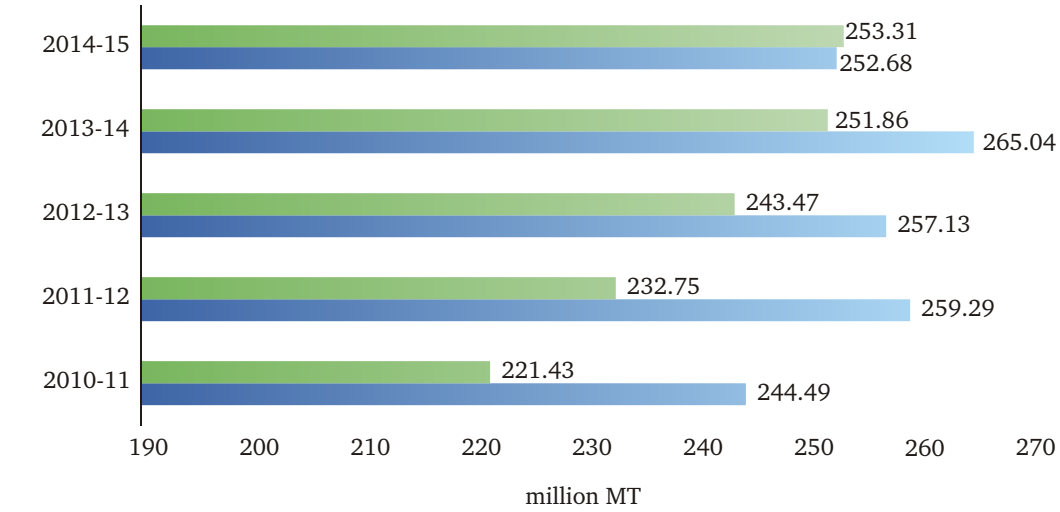
Source: Agricultural Statistics at a Glance 2015

"Need for special infrastructure to address product characteristics"

A huge marketed surplus calls for efficient marketing system to enable fast and effective movement of goods from producers to consumers. Farmers and consumer segments not only need marketplaces, but also facilities for storage, transportation, market information, financing and risk mitigation.

Further, the basket of agricultural production has also changed with a huge output coming from high-value agriculture, encompassing horticulture, dairy, fisheries and animal products. Horticultural production has exceeded agricultural production in the country. The growth in dairy, poultry and fisheries is actually driving growth of the primary sector. Fish, poultry and other animal products are often sold in different markets and may have an entirely differentiated marketing system. Fruit and vegetables have usually been sold in the same wholesale markets as food grains or in similar kind of physical markets. Their increasing output points out the need for having special infrastructure to address their specific product characteristics like perishability.

Exhibit 4: Food grain and horticultural crop production trend



Source: Agricultural Statistics at a Glance 2015, and Horticulture Statistical Year Book India 2016

This transition from subsistence to commercial agriculture represents the functional growth of the markets. According to Acharya and Agarwal (2011), in the initial stages of development, the market witnesses low volumes and a broad mix of commodities. At the second stage, markets evolve into specialized markets which trade in a few but specific commodities, despite relatively small volume of commodities. At the third stage, the specialization leads to increasing quantum off transactions, as a result, the commodities are assessed on the basis of samples than examination of the entire lot. At the fourth stage of growth, commodity grades are standardized and trade takes place for particular grades.

"Indian agricultural marketing has moved from the first stage and may now be considered to be at the cusp of third and fourth stages"

Exhibit 5: Stages of functional growth of market

Stage of functional growth of market	Market nomenclature
First stage	General markets
Second stage	Specialized markets
Third stage	Sample-based deals
Fourth stage	Grade-based deals

Source: Acharya, S. S., & Agarwal, N. L. (2011). Agricultural Marketing in India (Fifth). New Delhi: Oxford & IBH Publishing Company Pvt. Ltd.

Indian agricultural marketing has moved from the first stage and may now be considered to be at the cusp of third and fourth stages. The local "haats" and periodic markets in villages continue to exist today and represent the first stage of a functional agricultural market. They were general in nature, and often sold non-agricultural items too. The second stage markets emerged in the APMC era.

They functioned as a place of aggregation for a particular commodity of local production importance. Thus, we had markets well-known for specific commodities such as Unjha for cumin, Amritsar for Basmati rice, Erode for turmeric, Amritsar, Meerut, Ludhiana for wheat, Indore for soy bean and gram, etc. It may also be taken into account that these markets traded huge quantities of the mentioned commodities, besides various other commodities of relatively minor importance in that region. As the quantities being traded increased, buyers started testing samples since each tradable lot had increased in quantity. This is the present state of agricultural marketing system in India, and there is a rising need to have grades and trade based on grades. Different grading systems were followed in the past by different agencies such as BIS, AGMARK, FCI and CODEX ALIMENTARIUS. The multiplicity of grades and difficulty in adhering to them with limited grading infrastructure restricts trade based on grades. Hence it may be concluded that Indian agricultural marketing system is at the cusp of functional stages three and four.

The regulatory system faces challenges of laying down standardized, scientific sampling guidelines for various commodities along with ensuring availability of the necessary sample-testing facilities in the marketplaces. Educating farmers, buyers and other market functionaries of these sampling and testing methods is also important. Since samples become a representative of the lot, it becomes essential to maintain the lot in proper condition so that the lot remains true to the sample. This necessitates scientific storage and transport infrastructure. Sharma and Wardhan (2016) suggested that to deal with rising marketed surplus and to ensure that it leads to gains to farmers as well as poor consumers, output markets should develop and provide physical infrastructure such as collection centres, grading and packing facilities and rural roads. Additionally, enhancing the reach and quality of market information, access to storage and institutional credit for small and marginal farmers needed to be improved.

"Integrated warehousing and financing services are crucial"

Even as these changes are taking place, small and marginal farmers face many issues as the lots they sell individually are small. This reduces their bargaining power and they usually have to settle for lower prices. Small lots also lead to uneconomical costs of transportation, scientific quality assessment, and grading. This affects the overall price realization. Awareness about storage, financing against stored goods etc. also needs to be improved. On the other hand, the lack of integrated warehousing and financing services also creates impediments in effective implementation of any government schemes or private sector initiatives. Informal credit, at high interest rates, keeps the farmer tied to the lender. Thus the farmer is forced to sell to the lender, at the price offered by the latter, irrespective of the prevailing or potential prices.

Thus, a systemic change is required in agricultural marketing to cater to the emerging needs and for the sector to continue to play its constructive role in the rural and economic growth. In the next section, we will assess the evolution of agricultural marketing through regulatory measures.



Evolution of Agricultural Marketing through Regulatory Measures

2



2 Evolution of Agricultural Marketing through Regulatory Measures

2.1 The APMC System

The varied agro-climatic conditions in the country have favoured production of a wide gamut of crops encompassing cereals, pulses, fibres, sweeteners, spices, narcotics, and an equally diverse range of fruits and vegetables. The marketing system evolved in local settings and remained mired in local and traditional systems for a very long time. Farmers typically sold to local traders at a pittance, amidst opaque and deceptive price discovery methods, with hardly any knowledge of prices. Marketing assumed greater importance as yields and production started rising after farmers embraced high-yielding varieties, chemical inputs and other advanced technologies. Thus, there was a need for to support the farmers and avoid them getting manipulated in the market. It was in such a period that the Agricultural Produce Marketing Committees (APMC) Acts were passed by different states to regulate agricultural marketing.

2.1.1 Genesis and Growth of APMCs

The APMC era began in 1960s. The overarching objectives of the APMCs comprised of creating a marketplace where buyers and farmers could meet, trade in farm produce, and to protect the farmers from exploitation by unscrupulous trading methods. In the 1950s and 1960s, almost 27 states passed the model Agricultural Produce Markets Regulation legislation to govern agricultural marketing. Towards these ends, the government brought in several rules and regulations such as Agriculture Produce (Grading and Marking) Act, Prevention of Food Adulteration Act, Essential Commodities Act, Standards of Weights and Measures Act, Vegetable Oil Products (Control) Order, Bureau of Indian Standards and so on .

Besides creating a legal framework, the government also invested in market infrastructure that was necessary to carry out the numerous marketing activities and enhance efficiency. Accordingly, market yards and sub-yards with auction platforms, storage facilities and transport amenities were also created. Public investment was necessary since most of this physical infrastructure was a public good and also entailed extended pay-back periods. Further, the government also established agencies in the public and cooperative sector, such as the Food Corporation of India and NAFED, to intervene in the markets to prevent fall in prices during phases of glut.

"Besides creating a legal framework, the government also invested in market infrastructure that was necessary to carry out the numerous marketing activities and enhance efficiency"

The APMC system led to the establishment of over 7000 regulated markets in the country. These regulated markets were in addition to thousands of rural periodic markets or haats where farmers could sell their goods. The APMCs were better marketplaces than the haats as the former had better infrastructure, supported by a legal framework to facilitate trade and protect the interests of farmers. Payments to farmers were stipulated to be made within a specified time. In case of grievances, the farmers had the option of referring their complaints to the market committee.

2.1.2 Shortcomings of the APMC System

Over a period of time, many of the APMCs lost momentum despite the best intentions and efforts of the government. The concept of a notified market area virtually created a captive hinterland for an APMC and the farmers falling within a notified market area were bound to sell at the designated APMC. Collusion among traders in the APMC obstructed transparency in price discovery. The requirement of APMC-specific licenses discouraged new buyers from entering an APMC, resulting in perpetuation of existing traders and their cartels, thus killing competition among buyers.

While studies recommended that regulated market yards should be available within a 5 km radius of a village, it was difficult to create new market yards for several reasons, including but not restricted to, the opposition from trader lobbies. Not many additional services such as better and scientific storage infrastructure could be created by APMCs. As the marketed surplus increased, insufficient infrastructure resulted in losses during handling, cleaning, grading and transporting. The APMCs were created for the trade of cereals, pulses, oilseeds and other such agricultural produce. However, as farmers shifted to producing more fruits and vegetables in line with market signals, there emerged a wide gap between what the APMCs offered and what the farmers required. Most APMCs were not suited to handle huge volumes of perishable goods.

Many farmers preferred to sell outside the market yards or at farm gate. The prices received by farmers for such sales were not very different from what they could have got for selling in the market yard. It was felt that unscrupulous traders profited out of such practices than farmers .

2.2 Regulatory Reforms in Agricultural Marketing

A set of conditions such as changing nature of agricultural production, rising price spread, food inflation, non-remunerative returns to the farmer, seemingly outdated agricultural marketing practices and advent of technology created and supported the necessity of reforms in agricultural marketing.

2.2.1 The Model APMC Act, 2003

The Ministry of Agriculture, Government of India proposed a Model APMC Act in 2003 based on the recommendations of an inter-ministerial task force. The Model APMC Act proposed modifications to various provisions in the existing laws with an objective of encouraging competition by welcoming the cooperative and private sector to set up wholesale markets. According to the Economic Survey of 2014-15, the Model APMC Act of 2003 has provisions for:

(1) Direct sale of farm produce to the sponsors of contract farming.

(2) Establishment of special markets for specified agricultural commodities such as perishables.

(3) Establishment of new markets for agricultural produce by farmers, consumers, or private persons in any area.

(4) Registration of market functionaries instead of licensing, which facilitates them to operate in the entire state.

(5) Single levy of market fee in the entire notified area.

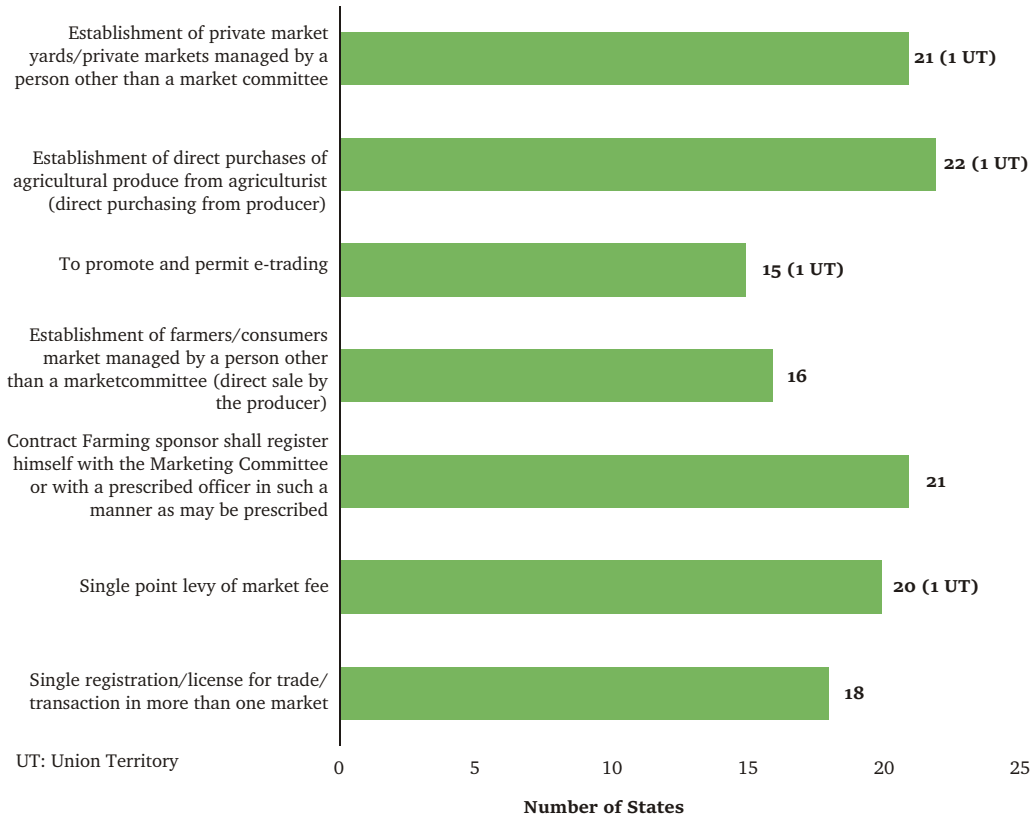
(6) Establishment of producers' or consumers' markets to facilitate direct sale and purchase of agricultural produce.

(7) Investment of revenue earned by APMC for market infrastructure.

Several studies found that the response to the implementation of the model APMC Act was not very enthusiastic. A few States adopted the recommendations, while other States only amended the rules. In certain cases, the changes were applied only to select commodities. Thus, some reluctance was observed in liberalizing agricultural marketing.

The following graph indicates the adoption of the salient features of the Model APMC Act of 2003 by various states. However, the detailed table summarizing the adoption of the salient features of the Model APMC Act of 2003 by various states is attached in Annexure 2 of this book.

Exhibit 6: Status of Marketing Reforms with reference to 7 key areas vis-à-vis Model APMC act as on 27/04/2017



Source: Ministry of Agriculture & Farmers Welfare, Government of India

2.2.2 Model State/UT Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017

The fragmentary approach to reform agricultural marketing was not delivering the intended results. The States felt that a wide-ranging Act that could facilitate regulation and development of agricultural marketing across the country was required to overhaul the marketing system. Certain developments such as the electronic National Agricultural Market (eNAM) required uniformity of regulations across States. Therefore, Directorate of Marketing and Inspection, Dept. of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare (MoAFW) came up with a Model State/UT Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017.

Some of the important provisions of the draft model Act are as below:

(1) The entire State would be treated as a single market, doing away with the earlier notified area for an APMC

(2) The Market Committee and State Agricultural Marketing Board would be fully democratized

(3) Enhancing competition for the farmers produce by providing conditions for creation of private wholesale markets and farmer-consumer market yards

(4) Reducing price spread by enabling direct contact between farmers and consumers or other end-user categories such as processors, exporters and so on

(5) Freedom to the farmer to sell his produce to any person or agency at any place of his choice which may fetch him better returns

(6) Declaration of warehouses, silos and other storage structures as markets or sub-market yards to enable direct linkage between the farmer and the buyer

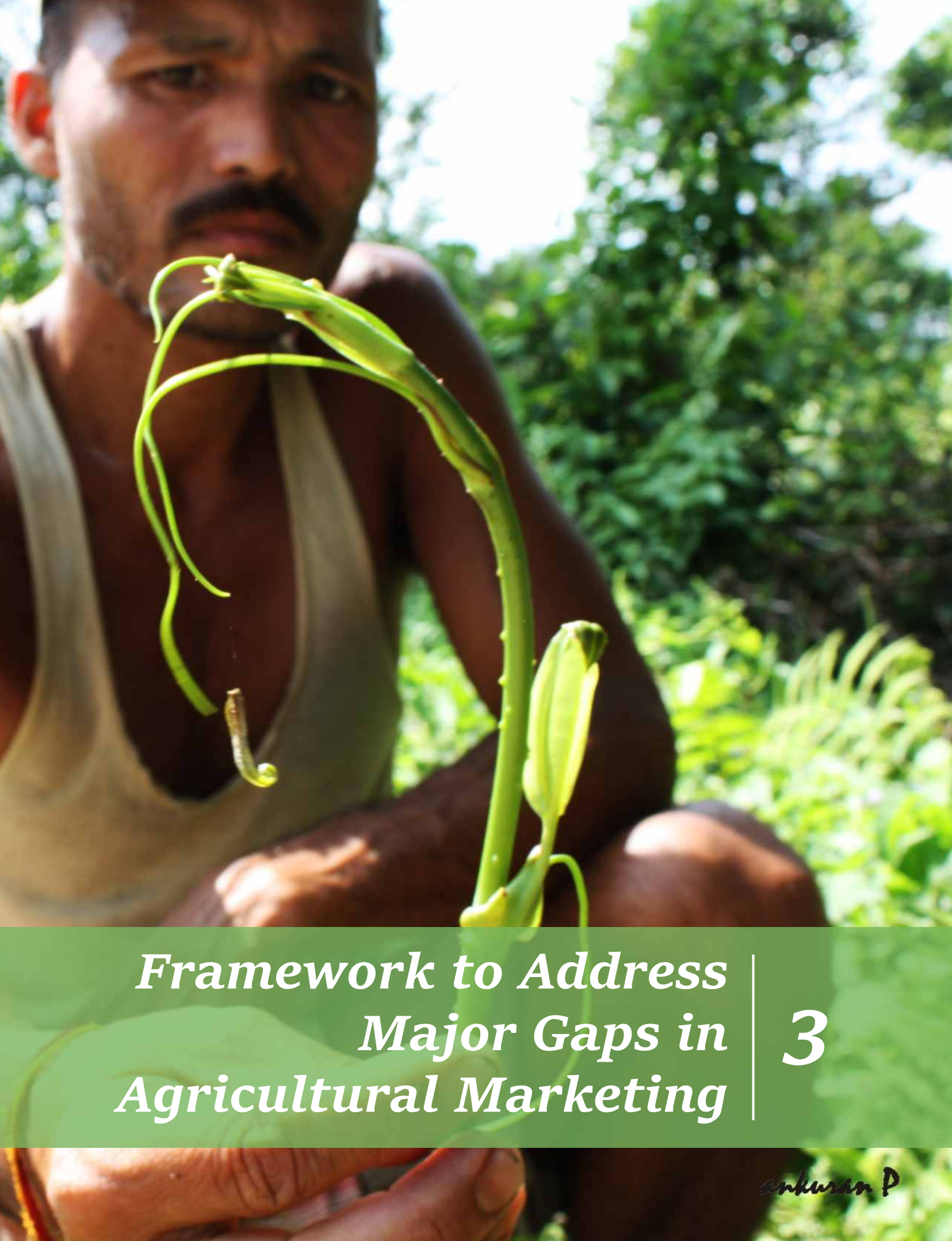
(7) Promoting e-trading to link markets across geographies and make trade process transparent

(8) Single-point levy of market fee and single trading license across the State

(9) Create conducive conditions such as inter-state trading license, grading, standardization, and quality certification for promoting a nation-wide, single agricultural market

Besides the above points, certain features of the Model APMC Act of 2003 have also been retained in the new draft model Act, such as provisions for special commodity market yard, rationalization of market fees and commission charges, etc.

In the next section, we develop a framework that assesses the existing system of agricultural marketing with its problems and how the problems can be solved under the new system.



Framework to Address Major Gaps in Agricultural Marketing

3

3 Framework to Address Major Gaps in Agricultural Marketing

Agricultural marketing has two important stakeholders – farmers at one end and consumers (end consumers, processors, retailers, and exporters) at the other end. The intermediaries and other entities in the chain (commission agents, traders, transporters, warehouse service providers, financiers, regulatory system etc.) enable movement of goods and carry out other support activities. Farmers typically face issues such as small individual lots for sale, poor knowledge of market requirements, inadequate availability of post-harvest infrastructure and financing, poor knowledge of such service and so on. Thus they depend on the trader and have low bargaining power. This eventually leads to low realization. Additionally, the fragmentation of markets reduces competition and exposes the farmer to a cartel-like situation within the APMC. As a result the farmer gets manipulated prices. If the lots of individual farmers could be aggregated, it would lead to larger sized lots, and their collective bargaining power would increase. Empowering farmers through market information – buyer requirements, prevailing and anticipated prices, buyer locations etc. – can help them take informed growing and selling decisions. To postpone selling, farmers also need warehousing and financing solutions. Integration of such solutions is what makes the bundled offer attractive, economical and worth availing. A unified state-wide or nation-wide market tends to make the market competitive and can smoothen prices over place and time. Value-addition through primary processing, packaging and branding can also play a vital role in raising returns.

"A unified state-wide or nation-wide market tends to make the market competitive and can smoothen prices over place and time"

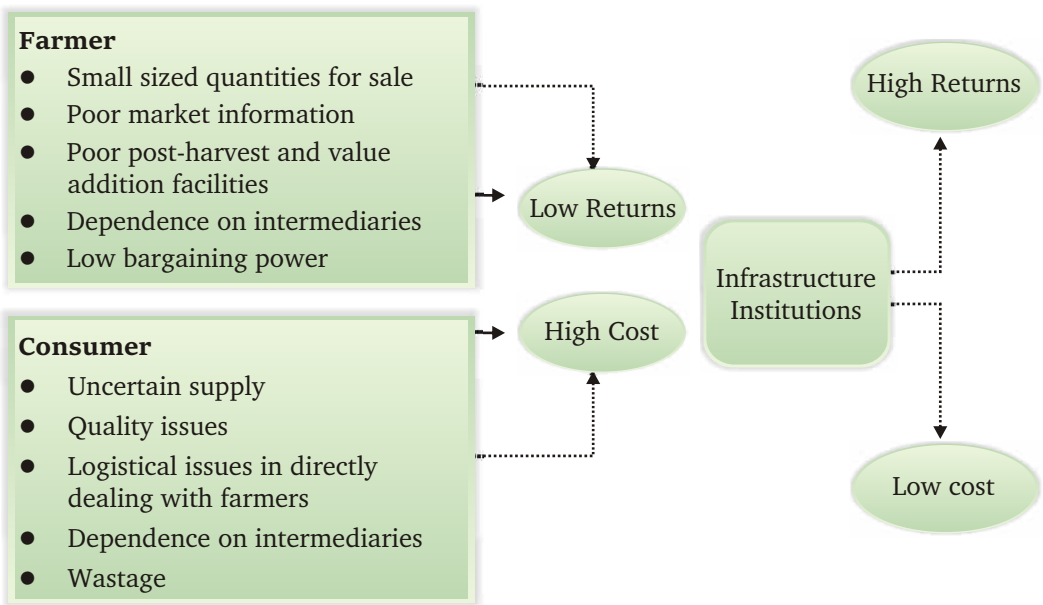
The consumer segments, on the other end are diverse, and include retailers, processors, exporters, traders and individual households. While the specific needs vary, a few generalized issues that the entire consumer class faces include uncertain supply, uncertain quality, logistical issues in directly dealing with a large number of small farmers and high cost at purchase point due to many intermediaries and inefficient logistics infrastructure. It would actually do well for the buyers or consumers to work more closely with farmers so that they get the required quantity and quality of produce at optimum prices. Direct contact with producers also enables the buyers to undertake alternative plans in case of any shortfall or increase in production. However, the daunting task which buyers face in this case is that India is a land of millions of small and marginal farmers; interacting with a large number of farmers is an expensive affair. Hence buyers depend on the chain of middlemen, who add more cost and little value, thus raising prices.

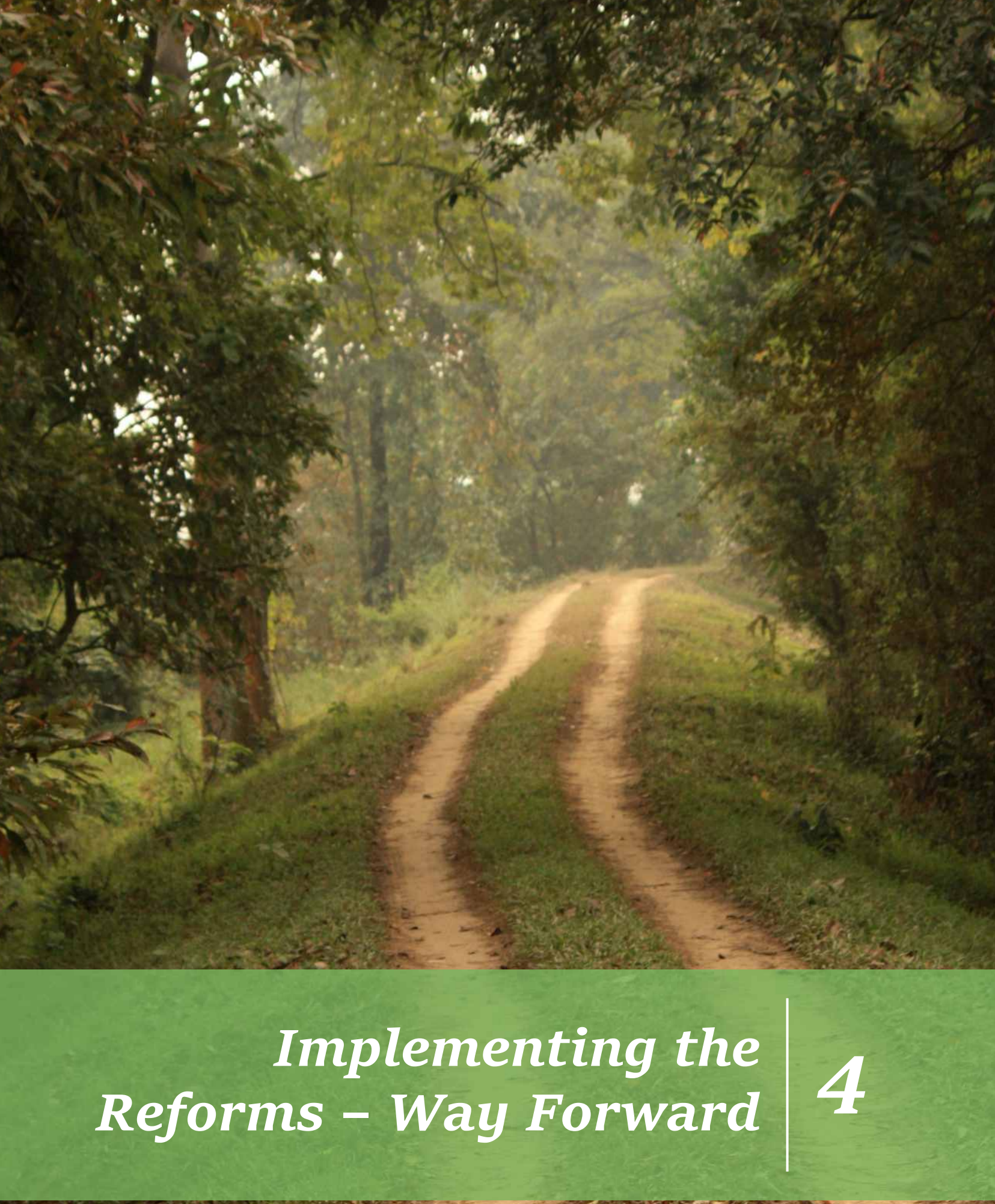
Thus, we need interventions that can help in aggregating farmers and their produce, establishing direct modes of physical and informational exchange between buyers and farmers, and adding value than cost in the supply chain. Further, these interventions should result in improving returns to farmers and lowering prices for consumers. Broadly, these interventions can be classified into institutional and infrastructural. For example, to reduce the issues arising to farmers due to scale, it would be helpful to have groups of farmers, such as cooperatives or farmer producer organizations (FPOs). These organizations can collectively solve problems of accessing other institutional shortcoming such as formal, post-harvest credit or engaging directly with institutional buyers (retailers, exporters, processors). Conversely, these farmer groups can act as institutions that can work as a conduit for conveying information and material from institutional buyers to individual farmers. This reduces the transaction costs that the buyers would otherwise incur while dealing with a large number of small farmers. Supply chain inadequacies of storage and transport are common to both producers and buyers, for which an enabling policy is necessary, that involves the private sector to play a constructive role.

"Supply chain inadequacies of storage and transport are common to both producers and buyers, for which an enabling policy is necessary"

In the next part, we discuss specific institutions and infrastructure that are proposed in the Model APLM Act, 2017 and also suggest other improvements based on our understanding and lessons drawn from experiences of different organizations. Through this, we discuss the way forward for implementing the agricultural marketing reforms so as to realize the vision of the Ministry of Agriculture and Farmers Welfare.

Exhibit 7: Framework for addressing concerns of farmers and buyers through agricultural marketing reforms



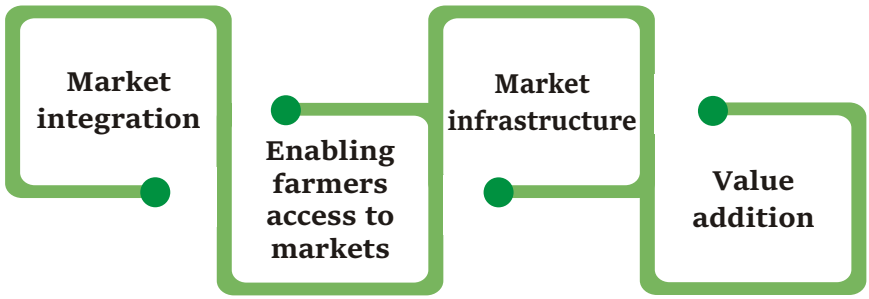


4 Implementing the Reforms – Way Forward

4 Implementing the Reforms – Way Forward

The implementation of reforms is a critical aspect since it holds the key to make any plan effective and deliver the intent in all its aspects. We dedicate this section to suggest how agricultural marketing reforms can reach their desired ends.

From the framework in the earlier section, we can draw two main objectives – raise the farmers returns and reduce costs for the buyer. While infrastructure and institutions are the important means to achieve this, we elaborate how these two means can be put in place. For this we suggest a four-pronged approach:



4.1 Market Integration

As has been discussed in the earlier parts of this document, fragmented markets, a result of the clause of notified area of an APMC, have had an unwanted negative impact on the competitiveness of the marketing system. The commodity exchanges for futures trading of commodities created a single, nation-wide market for various agricultural commodities through an online trading platform. Though their objectives were very different, they provided a template of how a unified market for the country as a whole could be created.

The Economic Survey of 2014-15 highlighted an interesting initiative undertaken by the Government of Karnataka in connecting all the APMCs in the state to create a virtual, single market across the state. The Economic Survey mooted the idea of replicating this model at the national-level. Thus was born the concept of e-National Agriculture Market (eNAM). It involves integrating all the existing APMCs in the country to create a pan-Indian electronic market for farm produce. eNAM aims to achieve this by a liberal licensing system for buyers without any preconditions of having a physical presence or possession of a shop premises in an APMC; a single license being valid for trading in the entire State; and a single point levy of tax for the first wholesale purchase from the farmer.

By September 2016, nearly 250 APMCs across India had gone online (Department of Agriculture Cooperation & Farmers Welfare, 2016). The fact that different States have agreed to have their APMCs connected online indicates their interest in identifying the benefits of eNAM. In fact, one of the reasons for the MoAFW to come out with a Model APLM Act, 2017 was to create a more conducive framework for States to enable them to join eNAM.

Despite having 250 mandis online, active participation was found in only about 79 APMCs. Most of the trading happens within a mandi and trading across APMCs is yet to happen as the infrastructure for quality testing, grading and certification is yet to come up. Only two or three States contribute to the bulk of trading that happens online in eNAM. The government is in the right direction in attempting to bring all APMCs on board, but the benefits will accrue to the farmer only when traders and buyers from different States participate in the online trading process (Bera, 2016; P. Sharma & Hussain, 2016). And for this to happen, the above mentioned support infrastructure has to be in place. This also presents the private sector with an opportunity to participate in providing the quality testing and certifying services. The government should actively encourage private sector to provide these services. The physical APMC set up can be modified to create more facilities for testing, storage and primary processing.

"By September 2016, nearly 250 APMCs across India had gone online"

There are other issues also that need to be addressed soon. Online payment to farmers through the APMC takes about 3-4 days and some farmers prefer immediate, cash payment. There are other farmers who do not wish to get the money into their accounts as linking their bank account to the online portal could potentially render them ineligible for several subsidies.

The government has expanded the definition of market yards in the Model APLM Act, 2017 to include warehouses, silos and other storage structures. Attempts should be made to bring these storage structures within the fold of eNAM wherever possible so that farmers in remote areas also get to benefit from a borderless marketplace. For this to happen, it will be essential to ensure that the warehouses or other storage structures are registered with WDRA and have foolproof systems to avoid any tampering with quality after certification.

eNAM has a potential to create a seamless, nation-wide marketplace that will not only benefit farmers by reducing their cost of finding buyers, but also by enhancing competition among buyers, enabling transparency and creating conditions for overall improved food management in the country.

4.2 Market Access to Farmers

There is a strong case for market integration, as discussed above. However, a single, seamless, nation-wide market for agricultural commodities may not be

the only solution for all marketing problems of a farmer. Nation-wide markets may be a good step for common commodities that do not vary drastically in quality terms, are known and accepted in all the available forms in different parts of the country and have buyers across the country. It should be remembered that in several cases farmers produce niche products that have unique tastes or properties, are demanded by a select section of consumers such as exporters or processors and thus the market for such commodities becomes localized and specialized. Further, the definition of a market would change drastically when the farmer is directly selling to a consumer in an offline context. The focus should hence be on enabling a farmer to access markets.

The National Commission on Farmers had observed that the density of APMCs is poor and it would actually be helpful if the market is within a radius of 5 km from the farmer's residence. Although creating so many full-fledged markets may neither be feasible nor viable, the policy should facilitate farmers to connect with buyers. Several such measures are feasible. Contract farming is one.

4.2.1 Contract Farming

Contract farming has been given prominence in the Model APMC Act, 2003. However a new model Contract Farming act 2017 have also been formulated. It has been practiced for quite some time in India. Seed production by seed companies and sugarcane production under the catchment area of a sugar factory are classic examples of contract farming that have been around in the country for at least a few decades. Contract farming by Pepsico for tomato in Punjab, SAB Miller for barley, and McCain for potato in Gujarat are some classic success stories that created a win-win for both the contracting company and the farmer, of course, with their own learning curves (Fernandes, 2013; Kumar, 2011). Contract farming has since been used by various companies for specialized farm produce such as medicinal plants, fruits, vegetables, spices, organic cotton and other organic produce etc.

The main advantages of contract farming for farmers were found to be the lowering of market risk with the sponsor contracting in advance to buy the farmer's produce within a reasonable range of quality parameters. Additionally, farmers also gain from the technical, managerial and advisory services that the sponsor provides. In most cases, the sponsor facilitates or directly provides inputs required for farming – seeds, crop growth and crop protection chemicals, credit, technology – and a ready market. In several cases farmers benefit out of the transfer of new technology and skills by the sponsor or contracting company. Since the costs and prices are known in advance, the enterprise usually turns out profitable. However, critics of contract farming point out that it is an unequal contract with the sponsor being more powerful and the farmer gets into a relationship of monopsony with the sponsor as there is a single buyer (Eaton & Shepherd, 2005).

On the other hand, the sponsor finds advantages of lower production risk, consistency of quality, political acceptability of working with small farmers and raising their technological, skill and financial standards as compared to working of owned estates, and lower costs of production. However, sponsors too face challenges such as the farmers not following the recommended practices resulting in undesirable quality of output, diversion of inputs to other crops or purposes, and biggest of all, breach of contract where the farmer sells the produce to buyers other than the sponsors (Eaton & Shepherd, 2005). Sponsors have also raised concerns of bringing contract farming under a separate legal ambit. Industry feedback sought for preparing this report indicates that a standardized law will be detrimental since a single model will not be suitable for contract farming of different crops. Fragmented lands also pose a problem as transaction costs rise. Land leasing through legal means facilitates the sponsors to enter into multi-season contracts with farmers.

In spite of all the drawbacks, the success stories of contract farming indicate that the process holds promise, if executed properly. For the farmer, it greatly reduces market risk and to some extent price risk. Contract farming brings the farmer in direct contact of the buyer, thus eliminating middlemen in marketing. It helps the farmer understand market requirements and tailor his production methods to suit market needs.

"Contract farming does have potential in improving not just the marketing aspect, but also the production features of a farm"

Thus, contract farming does have potential in improving not just the marketing aspect, but also the production features of a farm. It is for these reasons that states such as Punjab enacted a law for contract farming in 2013, while states such as Maharashtra, Gujarat and a few others modified rules to encourage contract farming (for example, Gujarat State Agricultural Marketing Board, 2014). Government intervention in technology transfer, research and germplasm development especially for medicinal herbs and plants, and generally educating farmers about contract enforcement and regulation is also desirable. Interference by vested interests in cases where the contracting parties squabble due to breach of contract in different ways is an undesirable method of tackling the issue. Researchers have suggested that it will be worthwhile to learn from successful and failed experiments and devise ways whereby contract farming benefits small landholders. Although policy measures may not be hold complete solutions, they can address generalizable issues based on lessons drawn from prevailing and past examples of contract farming (Glover, 1987).

4.2.2 Direct Marketing

Direct marketing is another concept that has been emphasized in Model APMC Act of 2003 and Model APLM Act, 2017. Direct marketing can occur in two ways – the producer sells directly to the consumer or consumer markets are established

where producers can directly go and sell. The main objective in this case was to remove intermediaries in the chain and reduce price spread. Government-backed initiatives such as "rythu bazars" in Andhra Pradesh, "apni mandi" in Punjab and "uzhavar santhai" in Tamil Nadu helped urban areas get fresh farm produce at low prices and better returns to farmers (Governance Knowledge Centre, 2011). Sugarcane procurement is another example of direct purchase where the processor interacts directly with the producer.

Several states, which had implemented the reforms, have also given out Direct Marketing Licenses (DMLs) to various kinds of buyers including corporate houses such as Tata, Mahindra and Godrej. Maharashtra was one state which had issued almost 200 DMLs. But it was reported that most of these licenses were unused (Kasabe, 2016). One of the reasons identified for poor response to DMLs was the high bank guarantee and security, which put off several buyers. Secondly, it is also a difficult task to coordinate with a large number of small farmers. This raises costs of coordination, monitoring, and negotiation, which eventually dents into the savings made by purchasing at lower prices than the market. Land fragmentation also leads to low productivity and profitability, which results into migration. Hence, land leasing for agricultural purposes should be legalized so that the combined holding will be of economical scale, if not profitable.

However, as case studies of various consumer markets show, the benefits of direct marketing are important and undeniable. Hence the model may require some tweaking before it becomes a more frequently used approach of connecting farmers with markets.

4.2.3 Farmer Producer Organizations

Another major problem farmers face in marketing is small quantities for sale. Although the percentage of marketed surplus is very high in most crops (V. P. Sharma & Wardhan, 2016), the absolute figures could be small due to predominance of small and marginal holdings. This affects scale economies which are an important factor in marketing. Uneconomical lot sizes raise cost of transportation and other transaction costs, leading to high cost of marketing. Small quantities also lower the bargaining power of the farmer. They also cause storage, financing and value addition uneconomical and also infeasible due to apathetic attitude of the warehouse service provider and financier. Hence, farmer associations in the form of self-help groups, cooperatives and farmer producer companies have been found as a way to overcome the above mentioned handicaps. Of the various associations, farmer producer organizations (FPOs) have become more popular in the recent past for a variety of reasons.

FPOs as a concept were introduced on the recommendations of Y. K. Alagh committee in 2002, whereby the unique elements of a cooperative were

accommodated in a framework similar to that of companies and existing cooperatives were allowed to convert into producer companies. FPOs can have as members only those whose main source of income is agriculture, horticulture, animal husbandry, floriculture, fisheries, forestry, forest produce, bee-keeping, plantation products, handloom, handicrafts and some other related industries. One person has one vote, irrespective of landholding or any other consideration. Shares cannot be traded but can be transferred in an FPO (Balakrishnan, 2003). The government made the Small Farmers Agribuiness Consortium (SFAC) as the nodal agency for forming farmer producer companies. Farmers were also helped by NGOs and social arms of corporate agencies to group into FPOs. By 2015, there were an estimated 2000-plus farmer producer companies in the country (Shah, 2016).

Unlike a cooperative like Amul, which was formed with an objective to tap market potential for milk in the then Bombay market, most FPOs seem to have been formed without a clear objective or strategy of product development, technology development or marketing and promotion innovation. Creating FPOs as a part of some government scheme or to undertake primary aggregation with little value addition may render them unviable and they may fail to achieve anything substantial. The condition of many FPOs is not very robust and they depend on government funding for the initial capital (Shah, 2016). Another important parameter of FPOs which has not received sufficient attention is capacity building in the management team, including the CEO. As an organization, especially involved in farming and marketing of farm produce, it is necessary that an FPO is more capable of understanding market dynamics and new technologies. Resource agencies often do the necessary handholding of FPOs, however regular capacity building and subsequent monitoring is also required. Problems also arise when the resource agency develops a conflict of interest and takes upon itself revenue generating activities and reduces the FPO to a mere aggregator or source of supply of farm goods.

"FPOs should be encouraged to take up primary processing, packaging, and where possible also secondary processing and other value addition activities"

FPOs is too important an idea that could be allowed to fail. Producer companies should be enabled to identify their specific opportunities, set achievable business targets and develop skills to achieve these objectives. FPOs should be encouraged to take up primary processing, packaging, and where possible also secondary processing and other value addition activities. Just as self-help groups are being handed over tasks of procurement and storage, FPOs could also be made nodal agencies to handle grassroots level procurement agencies and technology dissemination centres. Suggestions have also been made to allow FPOs to tap capital markets to raise funds. The government should rope in consultants and experts from the private sector to take up capacity building programmes and for imparting technical expertise and managerial skills to the members of the FPOs.

Policy guidelines that can help FPOs associate with consultants, funding of capacity building programmes and so on need to be formulated to ensure success of FPOs.

4.3 Market Infrastructure

Statistics show that the primary sector growth in India is driven by three high-value sub-sectors – horticulture, livestock and fisheries. In addition, the quantum of agricultural production – food grains, cotton, oilseeds – have also grown abundantly. The infrastructure required to handle the quantity and quality of agricultural produce is neither sufficient nor suitable to address the changes.

To begin with the storage space is inadequate. Lack of proper storage leads to post-harvest losses and wastage of produce. Farmers are forced to sell when there is a glut in the market and prices are low. It is the middlemen who have the capacity to hold and make use of increase in prices after 2-3 months and make gains, while the farmer loses out. Earlier, the warehouses were largely in the public sector and cooperative sector, but now the private sector has also made rapid strides in providing these services. Yet there is a necessity to ramp up scientific storage space, including silos and facilitate financing of stored goods to farmers. The government has tried to put a regulatory system in place by bringing in the Warehouse Development and Regulatory Authority and making warehouse receipts negotiable. Creating awareness among farmers and developing customized products for small and marginal farmers is required for the farmers to benefit. The quality of warehouses also needs to be improved. Although new warehouses are being constructed more scientifically, especially when funded under various schemes of the government, there are many old warehouses which need to be upgraded.

Cold storage and cold chain management is another important area that requires immediate attention and investment. Most of the horticultural produce is wasted due to lack of cold stores and refrigerated transport vehicles. Of the available cold storage in the country, a huge proportion is used only for potato. Investors and private entrepreneurs who have set up cold storages and controlled atmosphere storages have reported issues of poor returns due to absence of material for storage. On the other hand, farmers face the problem of distress sale since there are no cold storages near the selling centres. There is need for concerted effort in this sphere which should ideally be driven by market information of supply, assortment of perishable produce and the storage cycles. Unlike a regular warehouse, climate controlled warehouses seems to need more intricate business planning. The government can play a role in this by enabling cluster-based approach of growing vegetables, fruits and flowers, particularly around urban agglomerations. This provides a ready market for the producers, supply of horticultural produce for consumers, processors while the excess production can be stored, thus creating a win-win situation for all stakeholders.

The other market infrastructure that has been lacking and whose importance is likely to grow exponentially as eNAM progresses is grading and certification infrastructure. The present day grading or sorting in APMCs is restricted to sieving and fanning to remove foreign material. Most of the processes are manual and unscientific. The private sector should be encouraged to provide these services and farmers may be charged some user fees for certain basic quality tests and certification. Properly graded stock will lead to distant buyers developing trust in the system and enhance inter-state trade of agricultural produce using online platform. Appropriate grading, quality assessment and certification will also encourage formal financial institutions to lend against stored goods as they would understand the shelf-life of the commodity. Grading can help in developing customized financing products. Once the farmer sees a benefit in such steps, he is more likely to clean and dry the produce before bringing it to the market. While the private sector will find it attractive to invest in such infrastructure, the government should provide the basic infrastructure such as space in the market yards on which the additional infrastructure can be built. Thus we might need public-private participation in several ways and the policy should be amendable to promote such public-private partnership in myriad ways.

"Appropriate grading, quality assessment and certification will also encourage formal financial institutions to lend against stored goods"

The final aspect of infrastructure which usually gets overlooked is market information. Market information needs to be more sophisticated than just price information. Price prediction for different prices, supply-demand scenarios at different markets and in international markets should be regularly relayed to farmers. Providing a range of prices within which markets are expected to trade should be announced to farmers near harvest time so that they can take decision of storing versus holding. This needs effective broadband services and information transmission system that is conducive with ordinary mobile phones and not just smart phones. Several companies have app-based information services which are dependent on smart phones, and hence out of the reach of most farmers. Recognition of information services as an integral part of market infrastructure is the underlying point.

4.4 Value Addition

Value addition in agricultural commodities helps to raise the price the commodity earns. Even basic value addition such as cleaning and grading of grains, sorting of fruits and vegetables and primary processing activities such as cutting, dicing and packing fruits and vegetables can also help in raising farmers returns. Value addition is an important step that cannot be looked away if the vision of doubling farmers incomes has to be realized. In the subsequent paragraphs we look at different ways of adding value to farm produce.

4.4.1 Primary processing

Primary processing is defined variously, but broadly refers to those post-harvest processing activities wherein the produce does not undergo any change in its composition. It is made suitable for subsequent second stage processing to be used for manufacturing various kinds of food stuffs. Cleaning, washing, slicing, dicing, canning are some of the methods of primary processing. In commodities such as wheat, pulses, oilseeds, the removal of husk, foreign material, polishing, and grading are also considered primary processing. In case of fruits and vegetables, primary processing includes washing, slicing, packaging etc. (Fellows, 2004).

Most of the primary processing requires simple machines or semi-skilled labour who can take up the activities. Hence, it is possible to take up such activities at the farm level by imparting necessary training to farmers. The returns that accrue from primary processing are much higher than the cost involved. This area presents immense scope for raising farmer incomes.

"Primary processing is often labour intensive and hence a good opportunity to generate employment for unskilled labour in rural areas"

In several supermarkets and retail stores, sliced and packed fruits, washed and packed fruits, diced vegetables, mixed diced vegetables and several such variants can be found. For the consumer, this is an attractive proposition as cleaned and selected vegetables and fruits are available in a ready-to-cook format, and the consumer is willing to pay a higher price than regular vegetables. Organized retailers and online retailers can actually intervene in the supply chains, train farmers and provide them with packing material to get "ready-for-shelf" products right at the farm. Similarly, once farmers organize themselves into groups such as FPOs, they can make use of cleaning and hulling machines, polishing machines etc. and sell such produce at a much higher price.

Highly progressive farmers and those involved with export-oriented value chains are used to primary processing and packing. The returns they make in such value chains are much higher. Primary processing is often labour intensive and hence a good opportunity to generate employment for unskilled labour in rural areas.

4.4.2 Branding

Organizations and companies whose strengths lie in marketing have used branding strategies for making high profits. Farm brands have been effectively used by retailers in Europe to convey direct sourcing of fresh produce and charge a premium from customers (Hobbs, 2016). Unfortunately, such branding of farm produce has been almost non-existent in India. In the recent past, some companies have attempted branding Basmati rice and they have been successful to quite an extent. This shows the latent scope that exists in raising margins in undifferentiated, commoditized products which is the hallmark of agriculture.

Branding is not just giving a name but delivering a promised tangible and/or intangible value to the consumer. These days consumers look for certain specific quality parameters and are ready to pay a premium for the same. The government, in coordination with private sector can help develop brands in agricultural commodities. For example, Araku is small, tribal, forest area in north coastal Andhra Pradesh that grows coffee. Most of the coffee grown there is organic. Recently, the government of Andhra Pradesh launched Araku coffee brands in different variants in Paris, by leveraging the marketing expertise of corporate expertise of people engaged with Mahindra & Mahindra, Infosys, and Soma Enterprises. The investors brought in global expertise, helped improve area under production and the overall quality of the output and helped take the brand global. Thus, a tribal organic coffee grower is now able to produce a brand and sell it internationally (Nanisetti, 2017; Vipashana & Zachariah, 2017).

The North Eastern states of India have similar exotic produce to offer to the rest of the country as well as the world. The North East has not been able to tap into its inherent strengths of agricultural production. Most of the produce grown there is organic, as the use of chemicals is low. Thus, it is easier to get an organic tag for this produce. Parvata Foods has been trying to sell organic ginger grown in Sikkim in various parts of the country and the world through similar marketing strategies (Press Trust of India, 2016). The Spices Board has also tried to brand spices originating from India. There are numerous other localized examples of how brands are created out of location-specific strengths and unique characteristics. While this may not be a scalable activity, a large number of localized brands can also help in achieving higher returns to farmers. Since consistency is important in a branded product, investors should be encouraged to work closely with farmers, impart technical knowledge in production and harvesting, post-harvest operations and so on. Established brands are not just a source of improved returns but also a cushion against fluctuating prices of commodities, and hence a great source of value addition.



New Frontiers 5

5 New Frontiers

5.1 e-Commerce in Agricultural Marketing

In simple words, e-commerce refers to the buying and selling of goods and services, and transfer of money on an online platform. This online platform is primarily the Internet. It may also be called Internet retailing. eNAM constitutes a classic example of e-commerce in the realm of agricultural marketing in India. This differentiates from the popularly known e-commerce as eNAM works in a B2B setting, while e-retailing is in a B2C setting.

According to a report by Euromonitor, per capita spending on Internet retailing doubled between 2013 and 2014, and again between 2014 (INR 508) and 2016 (INR 1117). This growth was driven by rising internet and smartphone penetration, familiarity with digital payments, greater consumer awareness and rising aspirations. The growth was fueled by both urban and rural consumers, indicating that Internet retailing is not an urban phenomenon. People were found to buy products ranging from food, diapers, toys, baby wear, clothes, junk food, electronic gadgets like smartphones, laptops and cameras, shared economy (sharing appliances, car rides etc.), and so on. Online shopping was not only popular among teenagers, young adults and parents, but also among school kids, mid-lifers and late-lifers.

E-commerce presents advantages to both consumers and sellers. By eliminating most middlemen and inventory, costs are reduced and sellers are able to pass on the benefit to consumers as low prices. Consumers are able to find a large variety of goods and services, within the convenience of their homes or workplaces, at low prices. For sellers, it presents an opportunity to target consumers across the country, which would have been practically impossible with a brick and mortar shop. Thus, e-commerce delivers margins and savings by reducing search and negotiation costs.

E-commerce has been used by a few enterprising people in agricultural marketing as well. Big Basket, as well-known grocery home-delivery business, books orders online from consumers and delivers sorted and cleaned groceries, vegetables, and fruits to them. The other prominent names trying to make a profitable presence in this segment are Grofers and Godrej Nature's Basket. Global major Amazon has also been eyeing this space. In addition, there are several other players who cater to such demands in a few metros and tier 1 and 2 cities.

This is an upcoming area of agricultural marketing and highly suitable for selling exotic fruits, vegetables, grains, spices, organic foods and so on. This is an innovative business model that can drastically reduce middlemen in the supply

chain and connect the farmers and consumers. It has the potential to bring producers of niche products online and present them with an opportunity to market their products to a nation-wide, if not global consumer base. Agricultural and horticultural produce belonging to niche and specialty segments, produced in very low quantities, in remote geography, etc. stand to benefit through such value chains. Brands such as Fair Trade, Rainforest Alliance, and so on, that try to differentiate and get a premium for sustainable and labour-friendly practices find it easier to tap consumers through such channels. As and when FPOs start specializing in certain fresh and processed products, and get into branding activities, they can get good deals using e-commerce.

Agricultural marketing is likely to gain from e-commerce, both in B2B and B2C segments. While eNAM is government driven, the government has also facilitated entry of private players such as Big Basket in the B2C arena through policy initiatives such as direct purchase and e-trading. The private players may be procuring from both the mandis and also from farmers. However, the real gain would be when they develop sourcing models and supply chains that connect directly with farmers. Tax uniformity and easier movement of goods across states will be greater enablers for e-commerce in agriculture to pick up. The government may consider incentivizing efforts an e-retailer takes up in aggregating farmers or farm produce. On the other hand, e-retailers should engage more closely with FPOs and invest in technology to help the producers with improving quality and output at affordable costs and remunerative prices.

5.2 Technology in Market Information Systems

Market information is the key to decision-making in an environment that is market-driven. Information plays a key role in a fast-changing world and the one who gets to know the information first, stands to gain. While traders and other middle-men may be blamed to take advantage of farmers plight, the fact is that they actually make use of information of supply and demand in different markets and make money out of the existing and future price differentials, over time and geography. This underscores the importance of ensuring availability of information to farmers.

Several companies in the private sector as well the government departments realized the importance of price information and started disseminating prices to farmers. APMCs had put up ticker boards to convey prices prevailing in various markets and also the futures prices of commodities. Similarly, corporate players such as Reuters Market Light began an SMS-based price information dissemination service for farmers (Reuters, 2007). The idea was further expanded by IFFCO and various other companies. Organizations have now developed software applications or apps that are more sophisticated and give out real time price information, besides information relating to weather, crop production, crop protection, harvesting technologies and so on.

One of the important market information services led by Indian Council of Agricultural Research was DEMIC or Domestic and Export Market Intelligence

Cell. Under this concept, price forecasts for various crops were arrived at by scientists of agricultural universities who would collect data on crop acreage, output, market arrivals, prices in different markets and give a forecast. These forecasts were relayed to farmers through SMSs, newspapers, KVKs and radio, helping them take decisions of planting, harvesting, storing and selling. 10 collaborating centres were set up across the country to facilitate generation of price forecasts. Unlike broadcasting today's prices, disseminating forecasts for a two or three month period are more helpful for farmers (Urs, 2012).

In an integrated world, prices of commodities are very dynamic and influenced by a host of factors, both within and outside the country. Hence, price forecast becomes more complex. International trading companies collect data for crops and commodities across various producing, trading and consuming countries to determine likely future prices, and that is how they profit on a global scale. However, for farmers, the government should ensure that the information is sufficient to tide over unfavourable price conditions and the farmer is able to sell at an appropriate time to make decent profits. Arriving at such forecasts requires technology. The government should start investing more in remote sensing and mapping technologies to identify crop acreages. Arrivals and prices in markets can be tracked in real time once eNAM is in place and fully functional. Export and import data and production data of other countries should be available real time. And any real time measurement or tracking requires technology. In other words, market information system needs a backbone of technology.

It is essential to understand the difference between market information and price information. Market information captured and processed becomes price information. What is of interest to the farmer is whether the price for a commodity is going to rise or not in the next few months, helping him to take a sell or hold decision. As was done under DEMIC, forecast alone matters to the farmer, while lot of data, analysis and effort goes into arriving at the forecast. The government should involve the private sector in setting up a country-wide market information gathering and processing system. Investments in this can be jointly contributed. Once the forecasts are ready, the government may disseminate the forecast to farmers for free or at a nominal price or subscription. The entire exercise would call for coordination between various, diverse agencies of the government and private sector, right from remote sensing, informatics to data analytics and price dissemination. As much the data gets granular, it becomes as easier to forecast crop output and yield. Such information will also be useful for developing better crop insurance products and also settling claims.

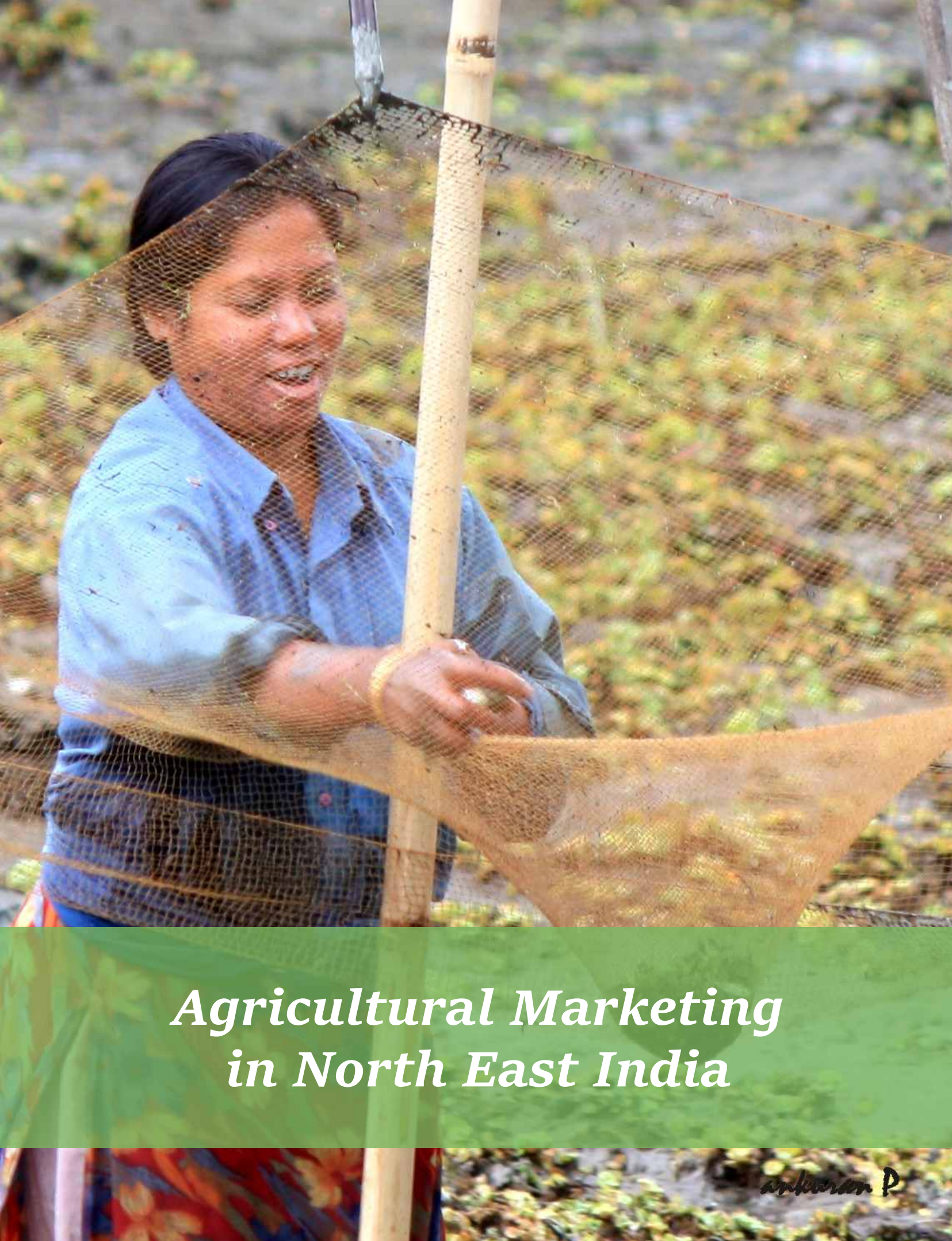
Market information has not received sufficient attention of policy makers. Even as farmers and farming moved from subsistence to market-driven, the information systems did not evolve and were restricted to extension services. No wonder then that farmers were able to produce huge quantities but were still disappointed due to depressed prices. It is the need of the hour to develop an agricultural market information system, which leverages strengths of both the public and private sector.

5.3 E-Trading - A non–conventional marketing channel neutralising price risks

One of the important drivers for improving farmer income is by providing them with access to efficient and assured markets. The idea behind the electronic market is to provide transparency in pricing by removing the information asymmetry between sellers and buyers and enable farmers to benefit from price discovery. Additionally, it also liberates farmers from dependence on commission agents, who are the traditional link between them and consumers

The presence of mature SEBI-regulated national agricultural commodity exchanges, coupled with progress in information and communications theory, has benefited the entire commodity supply chain including farmers, by offering a price discovery mechanism, reducing price volatility and hedging of risk. Prices of oil seeds, cereals, spices and fibre are discovered transparently on exchanges. Farmer producer Companies and cooperatives have emerged as viable aggregation vehicles for small and marginal farmers to participate directly on futures platform to realise better prices and manage risk through informed judgement.

Recent years have seen the emergence of regulated exchange as a trade facilitating institution that is catalysing growth in farmers income by increasing market access, reducing post-harvest information asymmetry and offering protection against price volatility.



Agricultural Marketing in North East India

5.4 Agricultural Marketing in North East India

The north-eastern region of India (NER) comprises of the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The region has its own diverse culture, resources, strengths and potential. The states are however blessed with very high rainfall, hilly terrain, dense forests and several flora and fauna that are native to the place. Agriculture is the mainstay of the people in the region, but the production is insufficient and NER imports food from other parts of the country. Rice is the most important crop, followed by oilseeds and pulses, which occupy a distance second and third position. Major commercial crops include jute and sugarcane. Horticultural produce includes banana, arecanut, coconut, pineapple, mango, orange, litchi, guava, papaya, sweet potato, tapioca, a host of vegetables, and spices such as ginger, garlic, chilies, turmeric, and onion. The government has established a Central Agricultural University in Manipur to aid in developing agriculture in the region (Patel, 2013).

One of the major problems of agriculture in NER is the lack of a stable agricultural marketing system in the region. For instance, Sikkim, Indias first organic state, produces a huge quantity of ginger. This ginger, besides being an important part of most cuisines of India, is also organic. Going by the market rates, such ginger should be selling at a premium. However, the absence of developed agricultural markets in Sikkim leaves a big gap because of which farmers are not able to make proper profits. The absence of institutional processing infrastructure also forces farmers to sell the produce fresh, thus keeping margins extremely low. Orchids is another NER produce that fetches a high price in urban markets of metros and various cities. However, the lack of proper supply chain leaves the producers at the mercy of local traders. The supply chain is again fragmented and has too many intermediaries. Given the high proportion of population dependent on agriculture in the region (over 70%) and the lack of proper marketing facilities, it is important to pay attention to agricultural marketing in the NER (Patel, 2013). At the same time, it is essential that we do not repeat mistakes that were made in other states and bring the NER at par with rest of India, if not a step ahead. We propose a few recommendations in the next part to promote agricultural marketing in NER.

The North East has some special produce which is exotic to the rest of India. Such products need to be identified and developed as brands. This requires imparting production, harvesting and packaging skills to the local farmers since maintaining consistency of the product is a must for brand development. Such products can then be marketed through special retail outlets that may be created by corporate organizations, as is being attempted for Araku coffee that is grown in Andhra Pradesh. Experts from corporate sector should engage with local

agricultural extension departments to develop training procedures and manuals. Harvesting, primary processing and packaging should be handed over to the farmers as it will help in raising their income. Branding can be developed to promote the north-east, a specific state, or practices such as sustainability.

The second method would be to open up processing of horticultural products and export it. Since a large part of the north east shares food products and practices that might be similar to nations on their eastern border, the foods that are consumed in those countries may be processed and exported. In addition, if specific foods have demand in other parts of India, that potential may also be tapped.

Forest produce, comprising wild flowers, orchids, wood, medicinal plants also constitute another important aspect of the north eastern agriculture. Establishing supply chains and contract farming of some of these products would require joint efforts of government and private sector. The government may engage in developing the necessary infrastructure such as roads and railways while the private sector can create markets and market linkages.

Since most of the north eastern states use very low doses of chemical fertilizers and pesticides, the land is more conducive for exploring the potential for organic agriculture. Although there are questions about the yields of organic agriculture and availability of organic inputs is also extremely difficult, the farmers would benefit through a premium for organic produce. Farmers should be grouped to form cooperatives or FPOs to take up organic cultivation and retail chains, specialty outlets can enter into contract farming agreements with them to market the organic produce.

There is tremendous potential for agriculture, especially forest and horticultural produce, in the north eastern states, which has hardly been tapped. Besides a readily available domestic market in the mainland, exports to neighbouring eastern countries can help in improving the incomes of farmers, creating jobs through value-addition, and contributing to raising the overall economy of the region.

5.5 Food Retail

Organized retail emerged as a big opportunity in India in the mid-2000s. Prominent corporate organizations such as Future Group, Reliance, RPG ventured into the space and one could see supermarkets and hypermarkets coming up in all major cities and towns. Cooperative bodies such as Safal also found a chance to build on their strength of working with a large number of dispersed producers and connecting them to city consumers. While these retail

stores were selling a wide range of goods from electronic gadgets and electrical appliances to floor cleaners and incense sticks to garments, they all had to allot space to groceries and fresh fruits and vegetables. Global retail majors such as Walmart evinced keen interest in the Indian organized retail market, which showed strong growth, at least in the initial few years.

From an agricultural marketing perspective, organized retail offered new opportunities at improving farm incomes and enhancing consumer satisfaction. Most retail chains emphasized on the "farm to fork" efficiencies that they could bring in over a period of time by developing supply chains and logistical infrastructure. However, after an initial phase, it was found that there were a large number of issues, ranging from high real estate costs and wastages at the front end, and high coordination costs of dealing directly with farmers. Several companies created collection centres for vegetables and fruits, arranging for transport, storage etc., but perishability, consistency and quality issues proved a major challenge. Farmers also complained of the retailer buying the best produce and leaving the farmer to sell the inferior grade to the mandi trader at throwaway prices. Having said that, it would be imprudent to write away the potential organized retail chains present. It may be inferred that it was a learning phase and both the farmer as well as the retailer have emerged wiser after the initial hiccups.

Agricultural marketing policy favours direct purchase and contract farming arrangements between producers and retailers. However, creating special acts and rules for such activities may lead to over-regulation. The policy should facilitate contracts between FPOs and retailers such that both the sides can come to a common table and chart out a path of their mutual convenience.

Directly engaging with retailers provides many benefits to the growers. Since production is taken up based on the inputs received by the retailer, it would be akin to responding to market requirements. Retailers should also provide training to farmers or involve third parties for training, not only regarding cultivation practices, but also for post-harvest activities. For example, several retailers sell cut and diced vegetables and fruits, which are properly packed in special trays and covered with transparent cellophane. This improves the visibility and usability of the product and consumers are ready to pay a premium for the additional service they get. Cutting and dicing are not highly skilled jobs. They need some basic infrastructure and the operations can be done using simple but sophisticated equipment, which farmers and other labourers can operate with some training. This leads to creation of semi-skilled jobs and higher returns in rural areas. On the other hand, consumers find convenience or which they are willing to pay a premium. In a country such as India where people still like to consume fresh foods, dicing and cutting are value-adding operations which meet market requirements. This becomes a win-win situation for all the stakeholders.

Organized retail also has bulk buyers like small restaurants and caterers who need an assortment of fresh vegetables on a daily basis. Bulking is an equally serious activity as one has to ensure that uniform quality of the product is present in the bulk. In usual practice, unscrupulous traders mix different grades and pass on to the buyer who is disappointed with the quality. If retailers work closely with farmers, then even bulking can be handed over to farmer groups. It is easier to work with farmer groups as it lowers transaction costs and improves margins to the retailer. Similarly, there is a scope to improve traceability when retailers establish direct contact with farmers. Traceability has direct relation to food safety, quality and helps in ensuring checks on the kinds of practices and quality of inputs that a farmer has used. This enables retailers to build trust with their consumers and take back consumer feedback to the field. Thus a virtuous feedback loop is created.

Organized retail in India is yet to reach its potential. And this would happen inspite of the rise of e-commerce or Internet retailing. Robust linkages between growers and retailers would bring benefits to both, even as consumers are presented with a wide variety and good quality at reasonable prices.



Conclusion 6

6 Conclusion

Agricultural marketing is a complex and challenging field. The diverse nature of agricultural production in the country and preponderance of small and marginal farmers introduces an element of difficulty for which the answers are not straightforward. The Ministry of Agriculture and Farmers' Welfare, after taking views of multiple stakeholders, has proposed a Model State/UT Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017. The regulatory framework tries to address issues of long supply chains, too many intermediaries and cost escalation by proposing several models that try to liberalize the market and rationalize supply chains so that both farmers and consumers benefit. This note identifies the problems in the agricultural marketing system and the associated supply chain and comes up with a framework that attempts to recommend solutions. Building on research and experiences of stakeholders engaged in agricultural marketing, we identify that interventions of two kinds are required to make a difference – institutional development and investment in infrastructure. Accordingly, we suggest a four-pronged approach to meet the objectives of improving farm incomes and reducing prices for the consumer. We suggest integration of markets through electronic medium at a national-level as envisaged under eNAM. Secondly, we find that customization at local level plays a critical role, and hence direct marketing initiatives, contract farming and FPOs have been identified as institutional mechanism that can create organized market structures at local levels and solve issues of scale and grassroots customization. Thirdly, we emphasize on investment in infrastructure. The broad umbrella of infrastructure is considered to cover warehousing and storage – both regular and cold; grading, testing and quality certification, and market information services. Fourth, we focus on value addition through primary processing and branding activities. We restrict to primary processing with an aim to provide income enhancing activities for the farmer and the rural areas. Branding initiatives have been very few in India but provide a tremendous potential and call for close coordination of corporate organizations with farmers. Industry also requires skilled manpower, especially agronomists, horticulturists, quality testing and certification personnel and so on. Agricultural universities should work more closely with the industry to provide them skilled and knowledgeable manpower. Finally, it is necessary to create a conducive regulatory environment. Private sector investments might have to be incentivized since warehouses and other such infrastructure involves long payback period.

Banks should develop products more amenable for commodity financing and the process should be seamless. To promote trading across state-borders, a single, nation-wise agricultural trading license is also being suggested by several companies.

We hope this note assimilates the latest thoughts and debates on agricultural marketing and provides implementable ideas to various stakeholders, besides opening up scope for new ideas and discussions to strengthen agricultural marketing.



Articles
Experts' Insights

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E Trading Platform

A direct tool for enhancing farmers income



Mr. Samir Shah
Co-Chair, National Agriculture Committee, FICCI
MD & CEO - NCDEX

For long, Indian agriculture has focussed on addressing productivity issues and policy measures have been largely skewed, with an almost step-motherly treatment dished out to post –harvest challenges. Recognising that slow growth in agricultural income and rising disparities are the major source of persistent agrarian distress in the country which has become a serious challenge for the country, the government has made a strategic shift with a developmental mission of doubling farmer income by 2022.

One of the important drivers for improving farmer incomes is providing them with access to efficient and assured markets. The market is efficient when farmers earn more and consumers pay less. Exchange platforms and other electronic markets are designed to enhance competition by connecting the largest number of buyers and sellers in the most cost-effective, transparent and regulated way.

Structural changes in agricultural markets – especially liberalization, crop diversification and withdrawal of government procurement – have left farmers more vulnerable. The presence of a mature SEBI-regulated national agricultural commodity exchange, coupled with progress in information and communications theory, has benefited the entire commodity supply chain, including farmers, by offering a price discovery mechanism, reducing price volatility, and hedging of risk. Prices of oilseeds, cereals, spices and fibre, worth around Rs 6.6 lakh crore in terms of annual crop outout, are discovered transparently on the exchange. These account for 44% of India's total agricultural output annually.

"FPO's and Cooperatives: Viable aggregation vehicles to participate on futures platform to realise better prices"

Farmer Producer Companies and cooperatives have emerged as viable aggregation vehicles for small and marginal farmers to participate directly on the futures platform to realize better prices and manage risk through informed judgement. We have seen this on NCDEX where over 43,000 farmers belonging to 47 FPOs have used the exchange platform to lock in prices and hedge risks. Farmers have received 15-25% higher net price realisation. This is in addition to the 3% savings in costs from direct market access.

The rise in farmer income will only become possible through a range of multifaceted developmental activities undertaken across the ecosystem, There is need to upgrade post-harvest practices, build capacity for marketing, disseminate information, and harness innovative bank credit and trade finance mechanisms.

Recent years have seen the emergence of regulated exchange as a trade-facilitating institution that is catalysing growth in farmer incomes by increasing market access, reducing post-harvest information asymmetry, and offering protection against price volatility. And it has the potential to link small-holder agriculture, commodity supply chains, processing industry, finance and government policies in a reliable and transparent way in order to double farmer incomes.

The role of regulated markets to positively impact farmer incomes needs a policy boost and Government support is required to achieve scale and deepen the benefits for small farmers, ensuring every smallest India farmer accrues the fruits of his labour.

Post-Harvest Management and Warehousing Solutions

Indispensable for agriculture marketing



Mr. Maninder Singh Juneja
MD & CEO
National Bulk Handling Corporation (NBHC)

INDIA is still predominantly an agrarian society, with over 50% of the country's workforce engaged in agriculture and allied activities. The sector contributes 17-18% approx. to the GDP, witnessed the production of 252 MMT of food grains and about 282 MMT of horticulture produce, despite of the wastages to the tune of about 20% at various stages of agri value chain.

The issue of food wastage is central to India's efforts in combating hunger and improving food security. Challenges of Small land holdings of the marginal farmers, movement of goods due to distances from the market and different production and consumption regions, grade and quality, inadequate storage infrastructure with allied services are contributing to the food wastages. Various Studies have shown that food grains post-harvest losses are as high as 4-6% due to inefficiencies in the warehousing infrastructure and lack of allied services with one stop solution. The real producers/farmers are at a great disadvantage by not having the right price discovery of their produce due to lack of information, infrastructure and market.

The nuances of developing not only new storage infrastructure but also up gradation of current practices, is the key for the overall development of agriculture logistics ecosystem. From a mere combination of transportation and storage services, logistics is fast emerging as a strategic function that involves end-to-end solutions that improve efficiencies in the agri value chain.

"Need to introduce concept of One Commodity one Village One Warehouse"

Increased private sector participations in providing the post-harvest management and warehousing solutions even in the remote areas of the country. We, as a post-harvest management and warehousing solution providers, must think beyond the prevalent solutions. One of the thought can be "One Commodity, One Village, One Warehouse" where in the small size villages/group of villages can be encouraged to have one commodity grade produce with one dedicated Warehouse with all the post-harvest warehousing solutions viz. state of the art infrastructure, SOP driven processes, IT enabled risk management techniques, scientific management of the warehouses, testing and certifications, pest management and preservation of the commodities.

The combination of solutions helps to offer a marketable and cost-effective proposition to the market participants of the entire post-harvest Agri value chain. Currently the said proposition is informally present in the market but in an unorganized form. It may also have a positive impact on the pre-harvest value chain where farmers/producers will be able add value to their produce. The said Warehouse can act as a part of unified national market. Government can play a very crucial role in propagating the said thought by providing the necessary aid and encouragement to farmers as well as private players through various schemes and policies.

The implementation of GST from July 1, 2017, promises to change the prevailing scenario and create a level-playing field across the country. With the advent of E-NAM, warehouses are expected to become Procurement Centres where farmers can deliver directly- with or without middleman. Multiple handling in the traditional procurement system is replaced by single handling thereby strengthening the right price discovery to the producers/farmers with access to information, reach to the market and required infrastructure.

Indian Agriculture Logistics

What are the challenges and emerging solutions



Mr. Jagdeep Grewal
Director
CR Group

We have many documents over food wastage in India due to lack of proper post harvest infrastructure and in particular logistics i.e. warehouisng and transporation along with allied activities. Surprising fact is that every value chain participant is aware about it, from farmer to consumer. Still we are lacking proper infrastruture and service level.

The reason for this can be attributed to our Agri-value chain profile and our food habits. If we talk of our Indian Agri Value Chain Profile then we find it to be fragmented with large number of internediaries. Fragmentation makes things costly and economically unscalable. While large number of intermediaries puts unproductive cost addition to produce. This leaves a very little room for agricultural produce to afford additional expenses which are actually required like scientific warehousing and transportation i.e. logistics efficiency. Further, talking of the Indian food habits we prefer fresh food and here fresh means we perfer to aquire raw and prepare at home. This habit creates pressure on both the ends, first we have to preserve raw agri-produce for longer time and same time food we cook has no shelf life, i.e. wastage susptability on both ends. Processed potato has more shelf life than raw as well as carries more value. This habit of consuming raw leaves no scope for value addition in agri-produce and hence leads to no scope for additional margins for agri-value chain. This leaves little scope to incur expenses for creating scientific logistics infrastructure.

"Value addition is an important step which cannot be looked away while strengthening Agricultural marketing"

The need of the hour is to take a shift towards consolidation of Agricultural Value Chain. Creating a national level integrated marketing channel and inviting consumers to procure on that platform across markets, with all transparancy is call of time. This platfrom would squeeze out unproductive intermedieries from the system and would result in consolidated agricultural marketing process. Increased revenue on producer side and decreased cost on consumer side would enable them to afford required scientific logistics infrastructure. Secondly encouraging value addition to agricultural produce through processing and same time encouraging people to opt for processed food would enable agri-produce remain safe and available for longer period of time. Higher value added products would enable producers to fetch more margins and in return enable them to invest in new technologies in the system.

We hope this note assimilates the latest thoughts and debates on agricultural marketing and provides implementable ideas to various stakeholders, besides opening up scope for new ideas and discussions to strengthen agricultural marketing.

Access to Technology
Crucial for farmers



Mr. Satish Nadiger
Managing Director & CEO
John Deere India Pvt. Ltd

The world's growing population shall demand more food and fiber to feed the additional 2 billion population by 2050. The land and other resources remain constant and thus arises an urgent need to adopt more efficient and sustainable means to enhance farm productivity, adapting to climate change.

Agriculture in India, holds a major share in the country's economy. Approximately 54.6% of the population is engaged in agriculture and allied activities (census 2011) which in turn contributes 17.4% to the country's GDP (GVA Žcurrent price 2014-15, 2011-12 series).

Indian Agriculture is witnessing a shift from manual to mechanical power for farming mainly due to high cost & unavailability of farm labor. Farm mechanization has a direct impact on the productivity of crops, besides it reduces the drudgery, and facilitates timeliness of agricultural operations. Mechanization of farms becomes even more critical due to shrinking operating window.

With the government's focus on doubling farmer's income by 2022, and some of the key growth drivers in place, we see a very positive trend in bringing modernization to Indian agriculture. Some of the growth drivers that have proven very beneficial to the farming communities are: credit availability, quality seeds and equipment for mechanization. Further, we see a strengthening government focus in the following areas for enhancing the reach to include small and marginal farmers in the growth journey –Soil Health, Micro Irrigation, Skill Development, Custom Hiring Center, Crop Insurance and Market Linkage.

Several unique partnership programs, with the state government and industries on a Public Private Partnership (PPP), with the aim to bring technological access to the small and marginal farmers has been a proven business proposition. This surely will help small farmers improve their farm productivity, profitability and thereby improving their quality of life meeting the vision of doubling farmers income by 2022.

> *"Partnership with State Governments on PPP mode to bring technological access to farmers is found to be proven business proposition"*

Capital formation in Indian Agriculture



Mr. Dennis Varghese
Business Head – Agri & Allied Business
Tata Capital Limited

As per Apr 17 RBI data, of the total credit of 65 lakh crs extended in the country, 1/7th goes to Agriculture and Allied activities (10 lakh crs). Agriculture credit is growing at CAGR of 15% for the last 3 yrs. Of this about 65-70% is extended as crop loans – pre harvest credit. However, as per CRISIL projections average land holding has moved from about 3-4 acres to 2-2.5 acres in the last three decades, further indicating possible downward movement. Fifty-Five percentage of the land owning farmers are either small or marginal farmers (<5 acre holding), and the crop intensity and profitability factors are also on declining, with possible result of sustenance farming and not profitable farming. In addition, there is huge migration to urban areas for unskilled labor.

The need for productivity enhancement through mechanization and group farming (contract farming/ FPO/ FPC's), has been the mainstay of most of the policies and schemes implemented since 2000, by NABARD/ NDDB, etc. This has resulted in a food surplus position in many of the mass agri commodities in the country, however profitability of the farmer is still in progress. Progressive schemes like fair MSP, PMJDY gives hope for a better tomorrow. Similarly, the need for value addition on the crops; including storage, food processing, and packaging etc. are critical levers which will enable profitability – schemes like Mudra are very promising and can yield aggressive results if executed well. Marketing of produce and protection of crop through effective insurance schemes are the start and end levers in the value chain, where considerable progress is required; many of which are work in progress (change in insurance claim methodology, emergence of FPC's) through the various government schemes being implemented.

"Wealth reinvestment, credit growth, end using tracking and good credit culture - drivers of capital formation in Indian Agriculture sector"

Capital formation in Indian agriculture has been at a slow pace. Traditionally household savings in rural areas have been invested either in real estate or in gold. In recent times industrial development (mainly SSI) is catching up – as per Apr 17 RBI data, credit outstanding to Micro & Small Enterprises under PSL stands at 8.4 lakh crs - and the wealth created is expected to move to other productive asset categories.

With the rural consumption market likely to triple by 2020 to reach $600 billion from the current level of $190 billion, many PE and VC/ Angel investors are eying the rural agriculture space. Many NBFC's are focusing on the rural growth and have invested in warehouse receipt financing significantly (most commodity management co's have started captive NBFC's). These indicate healthy equity infusion in Agri space.

While the above two – debt & equity – can start the engine, a proper tracking mechanism on end use of funds and resultant output on GDP terms through campaigns like Make in India', Mudra; will actually be the game changer in wealth creation in rural economy.

The fourth and critical component is the credit culture of rural India. With bureau level inputs like CIBIL/ Himark etc. impacting credit taking ability in the organized lending side, awareness of a clean credit history is becoming a norm in most rural areas. The ability of clean customers to attract more credit, and thus progress better economically should help restrict the loan waiver tendencies of rural markets.

A combination of wealth reinvestment in productive assets, credit growth (debt & equity), proper end use tracking, and a good credit culture can catapult the capital formation in Indian agriculture sector. The rural finance arm, works on one basic theme of Rural Entrepreneurship and has been lending since 2010, having funded more than 2 lakh farmers. Farm Automation business is the lead business which focuses on tractor & harvesters financing, and small commercial vehicles. Second SBU is called Agri & Allied, which focuses on other rural entrepreneur themes like food processing, horticulture, sericulture, trading & manufacturing, warehouse receipt financing, FPO funding, etc. It is believed that the next wave of opportunity is beyond the top cities and hence rural is a focus area.

Rural Markets

Ensuring small holder's participation in marketing



Dr. Hema Yadav
Director
CCS National Institute of Agricultural Marketing

Smallholder participation in markets is characterized by limited choice of markets and support mechanism, and this choice is critically dependent upon their ability and willingness to participate in markets and on the functionality of those markets that they are able to access. The rural markets which multi commodity in nature are first contact point of market. The problem is more crucial in East and North East States. There is need to strengthen this linkage.

Agricultural marketing system in Eastern and North-Eastern States is distinctly different from the other states in the country. It is observed that, the ownership structure and functioning of the markets in these states is heterogeneous. Taking example from Assam, there are approximately 1150 rural markets in Assam. Locally these are known as haats or bazaar. The rural markets are managed by Anchalik Parishad (block level) .The Markets are leased annually by inviting bids Anchalik Parishad receives money from lessee of which 40% is retained by Anchalik Parishad, 40% is given to Gram Panchayat as the ownership of the land lies with Gram Panchayat and rest 20% is given to Zila Parishad.

"Urgent need to strengthen marketing linkages in Eastern and North Eastern States"

The rural markets mainly function as the primary markets which serve a small area of 1.5 to 3 km radius and operate once or twice a week. There is relatively small market attendance of 500 to 2000 person per market day where farmer –producers sell their surplus to local consumers. There are also local assembly markets which serve a larger area with a radius of 3 to 8 km and on average 2000 to 5000 people attend these markets per market day which is usually twice a week. Here the farmer has an opportunity to sell to either local consumer or to itinerant trader. In some of these markets livestock is also assembled for sale in bigger markets. Also non farm products for daily needs are sold.

In Rural Markets, trade is characterized by direct sales of small quantities of produce by producers to village traders and by retail sales to rural consumers. The Rural Markets normally form part of a local trade network and are usually arranged on a periodic basis, on specific weekdays. They are more commonly organized at a central place in a village or district centre or beside a village's access road. The market circuits are an example of commodity flow are inherent characteristic of rural periodic markets.

Function of Rural Markets: Rural Markets in generally perform three functions, viz, (1) selling of local produce within the area (ii) assembly of local products for selling to other areas and (iii) retailing of wholesale lots from other areas in the local area. The selling of local produce to traders & consumers is the predominant activity in these markets. Besides, goods, that are not produced locally, are brought by smaller & occasional traders to retail to local population. These markets, through their interconnections, are a farmer's main connection point with the inter and intra regional marketing system.

The ruling prices in these primary markets are invariably much lower. Price variations are attributed to lack of infrastructure such as storage, transport, etc. Due to lack of infrastructure, many times the farmer is forced to sell at harvest time, at low prices, only to buy back in off season at higher prices. This highlights the need for planning of Rural Markets to enable them to play their role effectively. They can be provided with need based infrastructure to come up to a level.

Although trading is the basic function of Rural Markets, a number of other activities take place, which for some market users are more important. Amongst these are the social functions, such as meeting other persons and obtaining news, and, other service functions such as tailoring, repairs, health, catering to daily needs of life etc. There is an increasing awareness amongst the rural population about advantages of selling their produce at market points to secure competitive prices. This, coupled with increase in Agricultural & Horticultural production, will generate larger arrivals in Rural Markets. Handling of larger turnovers will necessitate providing appropriate infrastructure facilities at these markets. Rural Markets developed appropriately will attract produce presently by-passing the market &also become more price competitive.

During the various visits to Rural Markets of different districts, it was found that facilitating services to both farmers & traders are absent in general. Nobody owns responsibility towards marketing efficiency: price, operational, innovative or for that matter of any kind. It has been a long felt need to address the marketing issues to improve and strengthen the marketing system to become a stronger linkage with agricultural economy. The new Model Act: Agricultural produce and livestock marketing (promotion & facilitation) act, 2017 has provisions for developing markets under local bodies so that there is a seamless flow of produce from rural to urban area.

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We would like to acknowledge the courtesy of Mr. Ankuran Pathak for the excellent photographs he provided us for the book



Ankuran is a passionate traveler and has been trying to capture the richness of the pristine agro-ecology of The North East India. An Engineer by profession, Ankuran had pursued his B.tech degree from Maulana Azad National Institute of Technology, (MANIT) Bhopal in Civil Engineering and has worked with Punj LLoyd Limited. & IIT Guwahati and also has provided his services to various organizations working in the field of soil conservation, watershed management and Ecotourism. He is presently working in Pollution Control Board Assam, Department of Environment And Forest, Govt. of Assam.

Partners

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Annexure I:
FICCI Sample Questionnaire

FICCI had conducted a small survey to identify the various issues which impediment the growth of agricultural marketing in India. The reponses from the survey conducted are collected and duly analysed in the book. The sample questionnaire used for the agribusiness industry during the survey is appended below for reference.

Questionnaire for Agribusiness Industry
1. Name of the organization
2. In which of the following ways has your organization made interventions in agricultural marketing? a. Contract farming b. Direct purchase from farmer c. Private market d. Connecting farmers with consumers e. E-trading / e-market f. Any other (please specify)
3. Please describe your venture / intervention / participation in agricultural marketing.
4. What kind of issues did you face in the agricultural marketing? a. Regulatory b. Demographic (such as farmer issues arising due to low income, land holding, literacy, age) c. Socio-economic (such as indebtedness of farmer to moneylender or trader, lack of support from other farmers, access to public institutions for credit, farm advisory etc.) d. Infrastructure (such as poor road or rail connectivity, transport unavailability, electronic connectivity) e. Any other
5. Can you please elaborate on the points that you identified in question 4 above?
6. Do you have any policy suggestions or recommendations to overcome the problems faced by you in the above context?

Annexure II:

Status of Marketing Reforms with reference to 7 key areas vis-a-vis Model APMC Act as updated on 27/04/2017.

S. No.	Area of reforms	States adopted the suggested area of marketing reforms
1.	Establishment of private market yards/ private markets managed by a person other than a market committee.	Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh ,Gujarat, Goa, Himachal Pradesh, Karnataka, Maharashtra, Mizoram ,Nagaland, Orissa (excluding for paddy / rice), Rajasthan, Sikkim, Telangana ,Tripura, Punjab, UT of Chandigarh, Jharkhand, Uttarakhand, West Bengal.
2.	Establishment of direct purchase of agricultural produce from agriculturist (Direct Purchasing from producer)	Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Gujarat, Goa, Haryana (for specified crop through establishment of Collection Centres) Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Mizoram, Nagaland, Rajasthan, Sikkim, Telangana, Tripura, Punjab (only in Rule), UT of Chandigarh (only in Rule), Jharkhand, Uttarakhand and West Bengal . U.P. (Only for bulk purchase under executive order issued time to time)
3.	To promote and permit e-trading,	Andhra Pradesh, Chhattisgarh , Gujarat, Jharkhand, Haryana, H.P., Karnataka, Rajasthan, Sikkim, Goa, Madhya Pradesh, Maharashtra, Mizoram, Telangana, Uttarakhand, Uttar Pradesh, Chandigarh (UT- in Bye-laws) Tamil Nadu.
4.	Establishment of farmers/ consumers market managed by a person other than a market committee (Direct sale by the producer)	Arunachal Pradesh, Assam, Chhattisgarh, Gujarat, Goa, Himachal Pradesh, Karnataka, Maharashtra, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Jharkhand , Uttarakhand and West Bengal.
5.	Contract Farming Sponsor shall register himself with the Marketing Committee or with a prescribed officer in such a manner as may be prescribed.	Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Goa, Gujarat , Haryana, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Mizoram, Nagaland, Orissa, Punjab (separate Act) , Rajasthan, Sikkim, Telangana, Tripura, Uttarakhand. 21 States
6.	Single point levy of market fee	Andhra Pradesh, Rajasthan, Gujarat (for processor, grader, packer, value addition and exporter), Goa, Haryana, Himachal Pradesh, Chhattisgarh, Karnataka, Madhya Pradesh, Maharashtra, Nagaland, Jharkhand , Sikkim, UT of Chandigarh (rules), Punjab (in rules) , Mizoram, Telangana, Uttar Pradesh, Uttarakhand, Tamil Nadu.
7.	Single registration/ license for trade/ transaction in more than one market	Andhra Pradesh, Goa, Gujarat, Haryana, Himachal Pradesh, Karnataka , Rajasthan, Chhattisgarh, Madhya Pradesh, Maharashtra, Mizoram Nagaland, Telangana , Sikkim, Uttar Pradesh , Tamil Nadu, Uttarakhand (in rules for e-trading only) .

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Disclaimer

This report is a product of the findings from FICCI's in-house studies as well as information collected through interactions with its various corporate members and other industry sources.

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Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.

FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

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