

eNAM: A Potential Game Changer for Agriculture Marketing in India

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ABSTRACT

The electronic National Agriculture Market (eNAM) is a pan-India online trading platform that links Agricultural Produce Market Committee markets to create a unified national market for agricultural produce. However, with the adoption of eNAM by the relevant stakeholders being relatively slow, Government of India has initiated a number of steps to address the issues related to post-harvest infrastructure, transportation of farm produce, etc. with particular focus on small and marginal farmers. This paper positions eNAM in the backdrop of marketing reforms and discusses the key enablers that would result in the successful implementation of this flagship scheme.

KEYWORDS: Agricultural Marketing; Agricultural Produce Marketing Committee; Electronic National Agriculture Market; Farmer Producer Organisations; Small and Marginal Farmers

AGRICULTURAL MARKETING STRUCTURE: A SNAPSHOT

Agricultural marketing in India is characterised by long and fragmented supply chain resulting in high wastages and low share of farmers in the price paid by the consumers. Presently, the farm output is traded through a network of 6,630 regulated Agricultural Produce Marketing Committee (APMC) markets comprising 2,332 principal market yards (PMYs) and 4,298 sub-market yards (SMYs) (Ministry of Agriculture and Farmers' Welfare (MoAFW) 2019a).

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In addition to the APMC markets, there are 22,941 rural periodic markets (RPMs) out of which 11,811 are under rural local bodies, 1,274 are under APMCs and other government agencies, and 9,856 are under private trusts and others (MoAFW 2019b). These RPMs which lack basic infrastructure serve as focal points for marketing of farm produce especially for small and marginal farmers, who account for 86.1% of all operational land holdings and 46.9% of the total operated area in rural India (MoAFW 2020a).

Government of India (GoI) has initiated development and upgradation of physical infrastructure of the RPMs into Gramin Agriculture Markets (GrAMs) using Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). As per latest figures, physical infrastructure / facilities have been developed in 1,251 RPMs and is under development in another 1,553 RPMs under MGNREGS (Lok Sabha 2021a).

REFORMS IN AGRICULTURAL MARKETING

Reforms in agricultural marketing were ushered in with the adoption of Agriculture Produce Marketing (Regulation) Act, and constitution of the APMCs by various States and Union Territories (UTs) in 1960s and 1970s (MoAFW 2017a). This was aimed to protect the exploitation of farmers by intermediaries who procured the produce at farmgate at low prices. It was envisaged that the APMCs, by regulating the marketing of agricultural produce in notified market yards through licensed intermediaries (traders and commission agents) and with adequate representation of farmers on the committees through fair elections, would facilitate development of efficient agriculture markets in which farmers would receive remunerative prices for their produce. However, in the following decades, it became increasingly clear that the reforms failed to protect the interests of the farmers against non-remunerative prices, high transaction costs, and post-harvest losses.

The reforms failed to address the issue of licensing bottleneck as well. Licensing mandates for trading encouraged rent-seeking behaviour among existing traders and commission agents thereby checking entry of new entrepreneurs and preventing competition (Manjula 2021; Gol n.d.). This too added to the woes of the farmers when it came to getting remunerative prices for their produce.

The APMC markets could not keep pace with the changing requirements of national agricultural trade and marketing. The geographic division of a State into multiple market areas administered by separate APMCs resulted in a highly fragmented market structure with multiple levies on intra-State and inter-State movement of produce, increasing the transaction costs, and post-harvest losses across the supply chain due to multiple handling. Thus, the existing structure of these regulated markets served as the biggest impediment to seamless movement of agricultural produce across the State / country.

To address the above-mentioned issues and as an attempt to introduce competition in agriculture markets for the first time, in 2003, GoI formulated a Model APMC Act and circulated it to the States for adoption. The Model Act intended to bring uniformity in State legislations and suggested several reforms to make agriculture markets efficient and competitive by promoting alternative marketing systems. However, glaring shortcomings were noticed in the adoption of the Model Act across the States / UTs. Even in case of those where the Model Act was used to effect necessary amendments to their Acts, the reforms seemed patchy, sporadic and cosmetic (MoAFW 2017a). Against this backdrop, GoI formulated the Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017 (APLM Act (2017)). Table 1 shows the status of marketing reforms carried out by the States / UTs with reference to nine key areas proposed by the APLM Act (2017).

Table 1: State-wise Status of Marketing Reforms

States / UTs	Limiting Regulation within APMC Yard	Separation of Powers between Dir (Mktg) & MID, Mandi Board	Private Wholesale Market	Direct marketing (Outside Mandi)	Declaring Warehouse, Silos / Cold Storages as Deemed Market	De-regulation of Marketing of Fruits & Vegetables	Single Unified Trading Licence	Single Point Levy of Market Fee	E-Trading
Andhra Pradesh	×	×	√	√	√	√	√	√	√
Arunachal Pradesh	√	√	√	√	√	√	√	√	√
Assam	√	√	√	√	√	√	√	√	√
Bihar	No APMC Act								

Chhattisgarh	×	√	√	√	×	√	√	√	√
Goa	√	√	√	√	√	√	√	√	√
Gujarat	√	√	√	√	√	√	√	√	√
Haryana	×	√	√	√	√	×	√	√	√
Himachal Pradesh	√	√	√	√	√	√	√	√	√
Jammu & Kashmir	No APMC Act								
Jharkhand	×	×	√	√	√	√	√	√	√
Karnataka	√	√	√	√	√	√	√	√	√
Kerala	No APMC Act								
Madhya Pradesh	×	√	√	√	×	√	√	√	√
Maharashtra	×	√	√	√	×	√	√	√	√
Manipur	No APMC Act								
Meghalaya	√	√	√	√	√	√	√	√	√
Mizoram	×	×	√	√	×	×	√	√	√
Nagaland	√	×	√	√	√	√	√	√	√
Odisha	√	√	√	√	√	√	√	√	√
Punjab	×	×	√	√	×	×	√	√	√
Rajasthan	×	√	√	√	×	√	√	√	√
Sikkim	×	×	√	√	×	×	√	√	√
Tamil Nadu	×	√	√	√	√	×	√	√	√
Telangana	×	×	√	√	√	×	√	√	√
Tripura	√	√	√	√	√	√	√	√	√
Uttar Pradesh	×	√	√	√	√	√	√	√	√
Uttarakhand	√	√	√	√	√	√	√	√	√
West Bengal	×	×	√	√	×	√	√	√	√
A & N Islands	No APMC Act								
Chandigarh	×	×	√	√	×	×	√	√	√
D & N Haveli	No APMC Act								
Daman & Diu	No APMC Act								
Delhi	×	×	×	×	×	√	×	×	×
Lakshadweep	No APMC Act								
Puducherry	×	×	√	√	√	√	√	√	√

Notes: √ means yes; × means no; The Status of Marketing Reforms is as of July, 2020.

Source: MoAFW (2020b).

From Table 1 it is clear that not all the reforms as suggested by the APLM Act (2017) have been uniformly implemented by the States / UTs. With some States / UTs not having the APMC Act, this only adds to the diversity in agricultural marketing systems across India.

ELECTRONIC NATIONAL AGRICULTURE MARKET

Recognising the importance of well-functioning agricultural markets to increase the returns for farmers and help drive growth in rural economy, GoI launched a scheme for setting up an electronic National Agriculture Market (eNAM) in 2016. The online trading platform of eNAM aims to unify the fragmented markets and provide farmers access to a nation-wide market. By promoting real time price discovery and transparency in auction process, it also helps farmers get remunerative prices for their produce.

Small Farmers Agribusiness Consortium (SFAC) under the aegis of the Ministry of Agriculture and Farmers' Welfare (MoAFW) (earlier known as Ministry of Agriculture (MoA)) is the lead implementing agency for eNAM. Department of Agriculture, Cooperation and Farmers' Welfare (DACFW) is responsible for paying the cost of developing the software and its customisation for the States, and also for providing a one-time grant upto a ceiling of INR 75 lakh per mandi (increased from INR 30 lakh in the Budget 2017-18) to cover the fixed costs related to equipment / infrastructure required for installation of the eNAM platform (Lok Sabha 2017). State Governments are responsible for suggesting the regulated markets which are to be integrated with eNAM. In order to be eligible for assistance under the scheme, States/UTs have to reform their APMC Acts to ensure that they fulfill the following three pre-conditions of the scheme: (i) a single licence to be valid for trading in all the mandis of the State/UT; (ii) single point levy of market fee; and (iii) provision for electronic trading in the mandis.

eNAM was formally launched for trading on 14 April 2016 in 21 markets across eight States on a pilot basis. As of May 2020, 1,000 mandis across 18 States and 3 UTs are live on the eNAM platform (Table 2). As of February 2022, about 1.73 crore farmers, 2.20 lakh traders, and 1.03 lakh commission agents are registered on the eNAM platform (eNAM 2022).

Table 2: State-wise Number of Mandis Integrated with eNAM Platform

States / UTs	No. of Mandis Integrated for Pilot Launch (as of April 2016)	No. of Mandis Integrated (as of March 2018)	No. of Mandis Integrated (as of May 2020)
Andhra Pradesh	-	22	33
Chandigarh	-	1	1
Chhattisgarh	-	14	14
Gujarat	3	79	122
Haryana	2	54	81
Himachal Pradesh	2	19	19
Jammu & Kashmir	-	-	2
Jharkhand	1	19	19
Karnataka	-	-	2
Kerala	-	-	6
Madhya Pradesh	1	58	80
Maharashtra	-	60	118
Odisha	-	10	41
Puducherry	-	2	2
Punjab	-	19	37
Rajasthan	1	25	144
Tamil Nadu	-	23	63
Telangana	5	47	57
Uttar Pradesh	6	100	125
Uttarakhand	-	16	16
West Bengal	-	17	18
Total	21	585	1,000

Sources: Lok Sabha (2016, 2018); MoAFW (2020c).

KEY ENABLERS OF ENAM

eNAM, if implemented successfully, can be a game-changer for agricultural marketing in India and can have a significant impact across the agricultural supply chain. However, it is imperative that the government focuses on the following key enablers in order to fully reap the potential benefits of eNAM.

(a) Developing post-harvest infrastructure

Presently, trade in the market yards is conducted on the basis of physical examination of the commodities and not on the basis of scientific grading and standardisation. However, trading on the eNAM platform necessitates standardisation and assaying of produce. Since eNAM is a virtual market, a lot of its success would depend on the network of APMC markets for the physical flow of commodities. Inadequate back-end infrastructure for grading, assaying, and quality certification would significantly constrain the volumes traded on the front-end eNAM platform. Lack of post-harvest infrastructure in APMC markets is, therefore, one of the biggest impediments to successful implementation of eNAM.

Huge investments in development of post-harvest infrastructure would be required for effective functioning of eNAM. The APMC markets willing to join the eNAM platform may be mandated to set up a dedicated fund for setting up market infrastructure from the market fees or revenues collected and submit a plan for upgrading existing infrastructure in a phased manner.

GoI has initiated several measures to incentivise the development of agri-marketing infrastructure. For instance, post-harvest storage including cold chain as has been recognised as infrastructure sub-sector eligible for viability gap funding scheme and 100% foreign direct investment has been allowed in trading of food products. GoI has been assisting the State Governments for bringing improvements in the infrastructure facilities through implementing Agricultural Marketing Infrastructure, a sub-scheme under the Integrated Scheme for Agricultural Marketing, and Mission for Integrated Development of Horticulture (MoAFW 2021a).

In view of high post-harvest losses, GoI has recently launched Agriculture Infrastructure Fund (AIF) in August 2021 which aims at providing a medium / long-term debt financing facility till 2025-2026 through 3% interest subvention and credit guarantee support on loans for creation of post-harvest management infrastructure and community farming assets. Since the inception of AIF, loans amounting to INR 6,182 crores have already been sanctioned for 8,630 projects across the country (MoAFW 2021a). AIF is also available to APMCs for augmenting their infrastructure facilities (MoF 2021). On the other hand, agriculture being a State subject,

the State Governments themselves can encourage private sector participation in the development of back-end infrastructure.

(b) Facilitating small and marginal farmers’ access

Small and marginal farmers is the most dominant category of farmers in India in terms of number as well as area of the operational holdings (Table 3). According to the latest Agriculture Census of 2015-16, they account for 86.1% of all operational land holdings and 46.9% of the total operated area (MoAFW 2020a). And both these shares have continued to increase steadily over time across Agriculture Censuses from 1970-71 onwards (Figure 1).

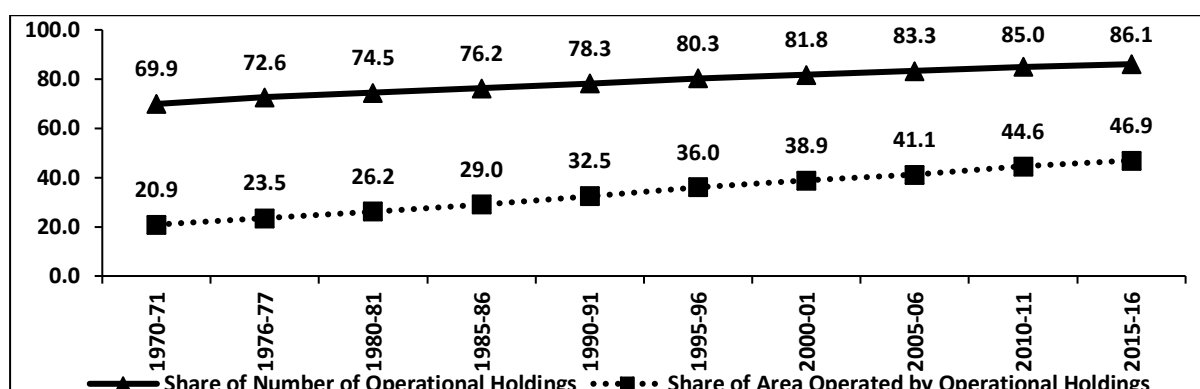
Table 3: Number and Area of Operational Holdings by Size Group

Categories	Operational Holdings		Area Operated by Operational Holdings		Average Size (in ha)
	Number (in '000)	Share (%)	Area (in '000 ha)	Share (%)	
Small & Marginal	1,26,060	86.1	74,074	46.9	0.6
Semi-Medium	13,993	9.6	37,619	23.8	2.7
Medium	5,561	3.8	31,810	20.2	5.7
Large	838	0.6	14,314	9.1	17.1
All	1,46,452	100.0	1,57,817	100.0	1.1

Note: The figures are based on the latest Agriculture Census of 2015-16.

Source: MoAFW (2019c).

Figure 1: Share of Small and Marginal Farmers in Number and Area of Operational Holdings across different Agriculture Censuses (%)



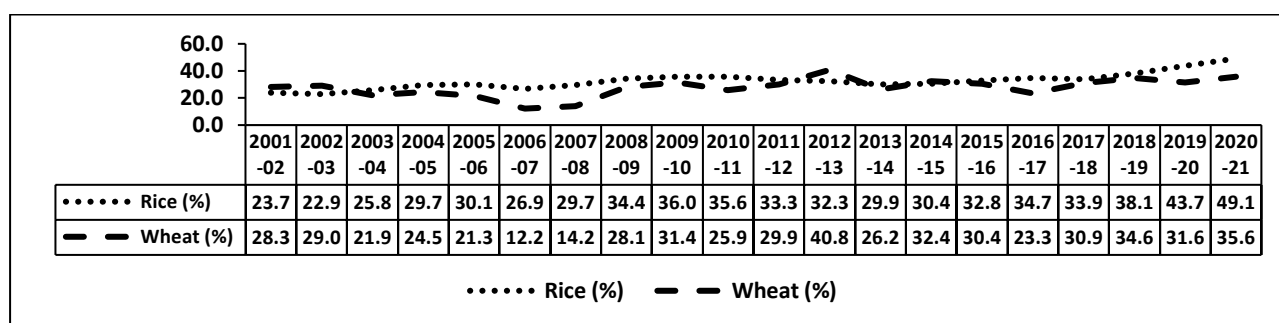
Sources: MoAFW (2019c, 2020).

Therefore, success of eNAM in increasing the farmers’ incomes would, to a large extent, depend on participation of small and marginal farmers in trading on the online platform. Given that eNAM is currently being implemented in 1,000 regulated wholesale markets already, and 1,000 more such markets to be integrated soon with the online platform (MoF 2021), participation of small and marginal farmers can be facilitated by setting up collection centres near farms linked to the wholesale markets and thereby reducing their transaction costs. Currently, the cost of transporting their limited marketable surplus over long distances often compels the small and marginal farmers to sell their produce to village aggregators who collect the produce from their farms and take it to the distant regulated markets. This arrangement denies the small and marginal farmers from getting remunerative prices for their produce.

(c) Linking public procurement

More than 50% of the marketed surplus of rice and wheat is procured by central and State procurement agencies for distributing foodgrains at subsidised rates under welfare schemes and for maintaining buffer stocks to meet any exigencies (Gulati and Saini 2021). As far as procurement to production ratio is concerned, based on GoI’s production and procurement figures, it is estimated that between 2001-02 and 2020-21, on an average, 33.2% of the total production of rice and 28.2% of the total production of wheat have been procured annually by public procurement agencies. Figure 2 gives the annual procurement to production ratio for rice and wheat between 2001-02 and 2020-21. It is clear that there has been a higher degree of fluctuation in the procurement to total production ratio in the case of wheat as compared to rice.

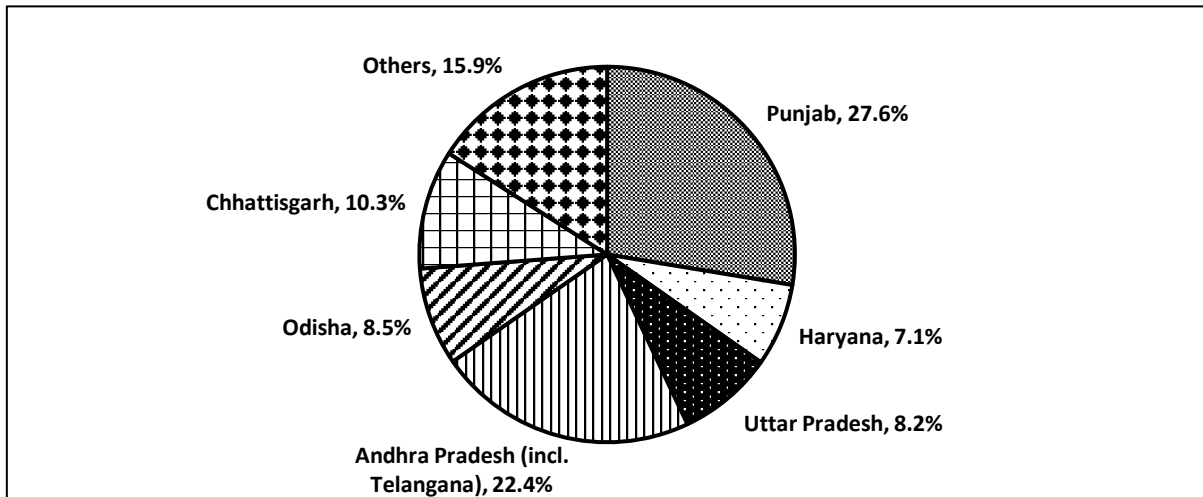
Figure 2: Procurement to Production Ratio for Rice and Wheat (2001-02 to 2020-21) (%)



Sources: MoA (2010, 2012); MoAFW (2017b, 2018, 2021b); MoCAFPD (2020, 2021).

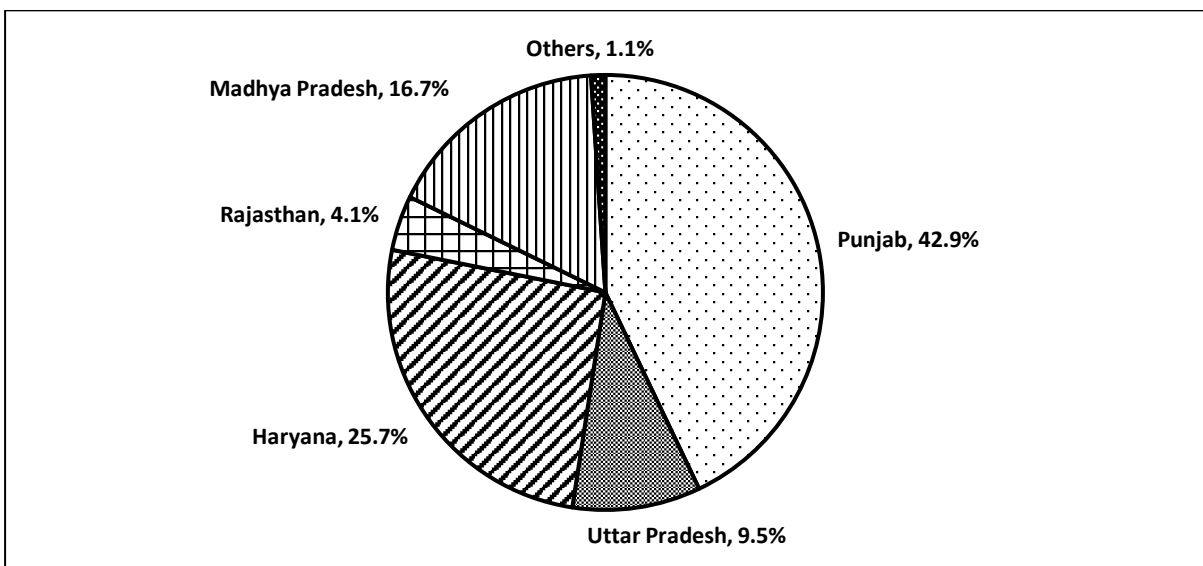
Further, most of the procurement is concentrated in only a few States. Figures 3 and 4 show that between 2001-02 and 2020-21, about 60% of rice procurement has been from Punjab, Andhra Pradesh (incl. Telangana), and Chhattisgarh, while 85% of wheat procurement has been from Punjab, Haryana and Madhya Pradesh alone. This concentrated procurement is highly inefficient as it adds to the costs of distribution to far away States / UTs.

Figure 3: State-wise Share in Procurement of Rice (2001-02 to 2020-21) (%)



Sources: MoA (2010, 2012); MoAFW (2017b, 2018, 2021b); MoCAFPD (2020, 2021).

Figure 4: State-wise Share in Procurement of Wheat (2001-02 to 2020-21) (%)



Sources: MoA (2010, 2012); MoAFW (2017b, 2018, 2021b); MoCAFPD (2020, 2021).

The online platform presents a unique opportunity to expand the procurement of foodgrains by public agencies to new markets. In order to promote the acceptability of eNAM, it is imperative that Food Corporation of India (FCI) and other State procurement agencies start using the eNAM platform for their procurement operations. This would not only help in developing the market for eNAM, but would also help these agencies bring down their incidental costs and at the same time ensure transparent and efficient price discovery.

(d) Strengthening Farmer Producer Organisations (FPOs)

FPOs can be looked at as an important institutional mechanism to organise small and marginal farmers. Their services can be utilised to augment land sizes through consolidation of contiguous plots of land. In order to strengthen such FPOs, issues such as working capital, infrastructure and marketing have to be addressed. The FPOs have to be linked to technical service providers, input companies, retailers, and marketing and processing companies. (Rangarajan and Dev 2021).

Towards this, GoI has launched the “Formation and Promotion of 10,000 Farmer Producer Organisation (FPOs)” under which FPOs formed and promoted with participation of farmers including small and marginal farmers will get various facilities such as improved technology, better input, credit and more markets to produce better quality crops (Lok Sabha 2021b).

Parallely, encouraging FPOs to trade on the eNAM platform can improve participation of the vast majority of the small and marginal farmers. As a step towards promoting this, MoAFW has introduced an FPO trading module in eNAM whereby FPOs can trade their produce from their collection centres without bringing the produce to APMCs (MoAFW 2020d). As of February 2022, 2,083 FPOs are registered on the eNAM platform (eNAM 2022).

CONCLUSION AND WAY FORWARD

Since agriculture is a State subject, strong political support and active participation of States is crucial for successful implementation of eNAM. Fearing a decline in their revenues, traders and commission agents in many States are resisting the implementation of eNAM. In order to build a truly integrated national market, respective State Governments will have to build

consensus and allay the fears of these important stakeholders, and convince them to participate in eNAM. Further, State Governments can

With a vast majority of farmers belonging to the small and marginal category, their participation in eNAM is of paramount importance for the success of the online platform. There is a need for increasing their participation through various farmer collectives – self-help groups (SHGs), co-operatives and FPOs. These collectives have the potential to mobilise farmers and give greater bargaining powers to the member farmers (Ganguly 2021). In this regard, encouraging FPOs to organise stakeholder education programmes for creating awareness of the benefits of eNAM can improve the participation of small and marginal farmers.

Linking of warehouses and RPMs (post upgradation to GrAMs) with the eNAM portal can go a long way towards enhancing the scale and efficiency of market operations. In this regard, the warehouse-based trading module has been introduced in eNAM that enables farmers to sell their produce from Warehousing Development and Regulatory Authority registered warehouses (notified as deemed markets) based on the electronic Negotiable Warehouse Receipt (MoAFW 2020d, 2020e). Further, linking of the upgraded RPMs (GrAMs) with the eNAM portal will provide farmers, especially those belonging to the small and marginal category, the additional scope of selling their produce directly to traders without having to go to the APMC markets, thereby reducing their transaction costs (MoF 2018).

To facilitate inter-mandi and inter-State trade, an enhanced version of logistic module has been introduced in eNAM whereby large transport logistic aggregator platforms have been onboarded. This would help traders to avail trackable transport facilities for transporting the farm produce from mandis to other locations (MoAFW 2020d, 2020e).

eNAM can truly prove to be a game changer for the entire agriculture sector provided it is implemented in letter and spirit with the States / UTs bringing about all the desired reforms in agricultural marketing. State Governments have to play a pivotal role in the implementation of the various schemes launched by the GoI for improvements in agricultural infrastructure, particularly post-harvest infrastructure. They themselves can proactively

encourage private players to participate in the development of back-end infrastructure such as storage facilities. This would lead to improvement in competitiveness and efficiency in agricultural markets ultimately resulting in better price realisation for the producers and lesser price differential between consumers and producers.

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