National Agricultural Market (e-NAM) – A Case of its Implementation in Rajasthan

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Abstract

The concept of National Agricultural Market has made an impressive progress since its launch on 14th April 2016. A total of 585 markets from 18 states/UTs so far have been integrated with the common platform. In this paper an attempt has been made to assess the performance of the concept at the national and state level. The performance at national level has been evaluated using secondary information on the number of markets integrated, volume of trade and registration of stakeholders on the portal. An attempt has also been made to assess the impact of the initiative on aspects like price discovery though with special focus on the state of Rajasthan. The analysis at the national level suggests encouraging balanced spread of states as nearly two-third of the markets are participating in the Scheme from just five states. There is a need for creation of awareness among farmers and other stakeholders to help them understand the benefits and procedure of eNAM. They are also required to be trained on preparing the produce as per the requirements of such a market. In order to reap benefits of the initiative, it is required to adopt different means like capacity building of stakeholders and creation of requisite support infrastructure to improve trade on the e-portal. A commodity-focused approach in place of a wide range of commodities may yield better result. The concept has the potential to provide a solution to various problems prevailing in agricultural marketing as has been suggested by the response of the stakeholders and positive influence of the initiative on scientific price discovery.

Keywords : National Agricultural Market, eNAM, Impact, Prices, Performance

Introduction

Any dynamic system will undergo transformation with the changes experienced in the surrounding environment. The same has been the case with agricultural marketing in India. The system experienced the introduction of regulations during 1960s. The public control (or regulations) introduced through establishment of regulated markets helped in getting rid of several malpractices and imperfections

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prevailing in the agricultural market and safeguarding the interest of the farmers (Acharya, 2004). The participation of private players and investment in agricultural marketing led to the introduction of reforms in agricultural marketing as regulations were considered to be relevant only when private trade was underdeveloped, exploitative and controlled by mercantile power (Chand, 2012). Reforms helped in improving the agricultural marketing system but could not attract private investment at the pace the changes were being observed on the production front. The un-integrated and distortion ridden agricultural markets, is one of the leading factors hindering the growth of agriculture in the country (Economic Survey, 2015). Accordingly, the Government of India emphasized on the need for having a common agricultural market at the national level. The concept of National Agricultural Market introduced by the Government as a Scheme envisages networking of selected markets of the country to a common electronic platform. It also speaks about integrating other services like storage, banking, assaying and logistic arrangement considering market complete conglomerate portfolio of activities (Chattopadhyay, 1981) encompassing rents, fees, storage, transportation, processing, etc.

The concept of National Agricultural Market, which was launched as a Scheme on pilot basis in India on 14th April 2016 in 21 selected markets from 8 states covering 22 commodities has successfully expanded to more than 400 markets by March 2017 covering 69 commodities across different categories of crops. The concept has registered impressive success in terms of the number of markets integrated with the common platform. However, the impact of the initiatives in the light of objectives envisaged to be achieved through the National Agricultural Market in terms of its influence on improved inter-state trade, higher degree of competition, scientific discovery of prices and integration of services like banking and storage is yet to be analyzed.

The task is curtailed by limited availability of trade related information mainly on arrivals and prices as the scheme is just into its second year of launch. It may take more time to undertake comprehensive research covering its impact on interstate trade, arrivals, price discovery, settlements, price stabilization, etc. However, an attempt has been made in the present paper to analyze the performance of the Scheme by capturing the journey of the Concept made at the national level so far. The market and commodity based analysis suggesting markets with better performance and commodities showing preference has also been done for Rajasthan state where 25 markets have so far been integrated. An attempt has been made to capture the impact of the initiative on quality of prices along with status of infrastructure created.

Methodology

The paper primarily relies on secondary information culled out from agmarknet.gov.in, eNAM.gov.in and other published sources to capture the performance made by the initiative. The performance of the NAM at national level has been assessed in terms of number of markets integrated with the portal, trade taking place through the electronic platform and stakeholders registered using simple descriptive statistics.

The paucity of information for the scheme being only into its second year limits the scope for detailed analysis, however the paper attempts to analyse the performance of the Scheme not only in terms of markets covered and infrastructure developed but also its impact on prices through a snapshot of Rajasthan. A total of 25 markets have been integrated with the portal over two phases in the state having 134 Principal Regulated Yard and 312 Sub-yards. The performance of the scheme in Rajasthan reflected through the number of markets integrated, infrastructure created and the status of market-wise and commodity-wise trade in value and arrival terms has been assessed by applying descriptive statistical tools to the information culled out from sources mainly Agmarknet and state office of strategic partners identified by SFAC for implementation of the Scheme.

The paper also attempts to capture the impact, if any, of the initiative on trade related aspects like arrivals and prices. However, due to paucity of information, only limited aspects of price quality could be covered. One crop from each category of crops i.e. pulses, oilseed and spices cultivated in the Rabi season has been considered for analysis. The market considered for analysis is based on the arrivals and availability of information. Cereals were not included in the analysis considering the volume of trade and procurement facility available under MSP. The period considered for the analysis is January to June 2017 and January to June 2016 assuming that there must have been some gestation period. It is also assumed that trade sufficient to create an impact have started taking place in recent months only. The price quality was assessed only for three crop-market combinations by comparing month-wise variation in daily prices (minimum, maximum and modal) over time i.e. January - June 2017 with January - June 2016 and quality of price assessed through an index developed for the purpose.

The price quality has been assessed by working out an index for the same. It is assumed that with the increase in transparency in the pricing and trading mechanism in the market through trade on electronic platform, there will be an

improvement in the price realized reflected by a higher proportion of transactions taking place near the maximum prices. The modal price is the price at which the maximum number of transactions has taken place. Thus, it was assumed that with trade taking place on the electronic platform, the modal price will move towards maximum price. Based on this assumption, an index[1] (Saleth, 1993, Saleth, R. M. and S. Swamina than, 1992 and 1993) was developed to capture the impact on quality of price discovered in the market. The index basically measures the degree of closeness of the prevailing modal price to the maximum price. The decrease in index value after introduction of e-NAM is expected as per the assumption stated above. The index takes into account the distance of modal price (P_{mod}) from maximum price (P_{max}) with respect to the total variation in the prices i.e. difference between maximum (P_{max}) and minimum price (P_{min}). The index so developed is unit free and is defined below:

$$Index = \frac{P_{Max} - P_{Mod}}{P_{Max} - P_{Min}}$$

Where

P_{Max} = Prevailing Maximum Price of commodity

P_{Mod} = Prevailing Modal Price of commodity

P_{Min} = Prevailing Minimum Price of commodity

Progress of National Agricultural Market

The Scheme has made a remarkable progress in terms of markets getting integrated with National Agricultural Market (eNAM) Portal. As on March 2017, 421 markets have got integrated with the electronic portal developed by SFAC through its Strategic Partner with trade taking place on 417 markets as reflected by the number of online markets (Table 1). Uttar Pradesh, Madhya Pradesh, Haryana, Maharashtra and Telangana are the leading States in same order with nearly two-third of the markets coming from these five states out of 13 states that have so far participated in the National Agricultural Market Scheme of the Ministry of Agriculture and Farmers Welfare.

In terms of value of trade performed on eNAM Platform across all commodities during the agriculture year July 2016 to June 2017, Haryana has been the leading state accounting for nearly 55 percent of the total value of trade, followed by Telangana (22.55 percent) and Gujarat (14.03 percent).

Participation of more number of traders/buyers to ensure competitive prices has been envisaged under eNAM. It has also been the focus to encourage participation of farmers on the platform. Nearly one lakh traders have been registered against 421 markets which makes 208 traders available in each eNAM market. The highest number of traders available per market are in Rajasthan (558) followed by Uttar Pradesh (369) and Madhya Pradesh (304).

On an average 9000 farmers per eNAM market have been registered while this number is more than 10000 farmers per eNAM market in states like Uttar Pradesh, Haryana and Telangana. Overall 3.80 million farmers have been registered across 421 eNAM markets from 13 states.

States have shown varying trends in terms of number of commodities considered for trade on the electronic platform. A State like Telangana has all the commodities registered on eNAM while Haryana has shown a contrasting approach by focusing on just 11 commodities. It may be their focused approach leading to nearly 55 percent of the trade in value terms of total trade performed on eNAM during the last agriculture year coming from Haryana only.

The progress of eNAM indicates that 417 markets have so far been connected from 13 states participating in the Scheme. However, it is equally important to see the coverage of markets under eNAM vis-a-vis the number of principal yards operating in respective states under regulation. This will help in assessing the potential of these markets together in establishing a state market and gradually to a national market. Figure 1 suggests that Jharkhand and Haryana are the only two states having more than 50 percent of their wholesale principal yards covered under the Scheme. It is assumed that these are important markets in a particular state for defining the agricultural trade and issuing price signals for rest of the markets operating in the state. Himachal Pradesh (not covered in Figure) is the only state that has extended its reach beyond Principal yards to Sub-yards as well. Overall, more than 76 percent of the markets are yet to be integrated with the portal. This limited coverage under the scheme may eventually emerge as one of the major factors hindering establishment of state and national market.

Considering both the parameters i.e. proportion of wholesale principal yards covered under the Scheme and trade taking place on eNAM Portal, Haryana seems to be emerging as the leader. Gujarat and Telangana have also done reasonably well on both the parameters but for the remaining states a lot remains to be done.

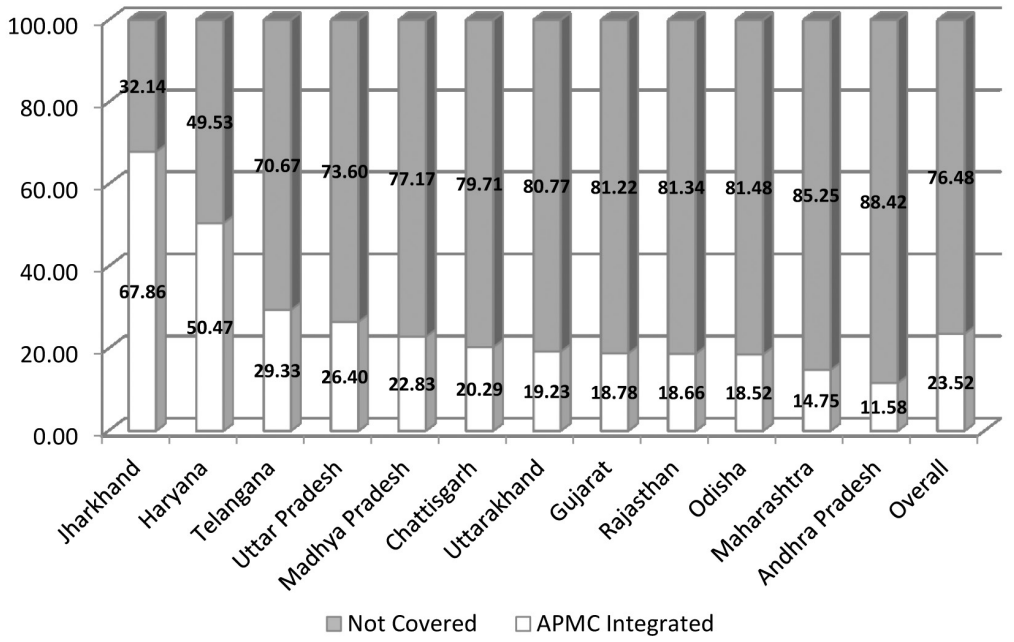

Figure 1. Gap in the Market covered under eNAM vis-a-vis total principal markets in the State

Snapshot of Rajasthan

In order to have a better insight on the progress of eNAM in terms of trade, a detailed market-wise (over all commodities) and commodity-wise (across all markets integrated with e-portal) analysis was performed. A total of 25 markets from the State have been integrated with the portal having focus on only 16 commodities.

Market-wise Trade on National Agricultural Market

The status of trade in different eNAM markets from Rajasthan covering all commodities is presented in Table 2. The table reveals that only 4.7 percent of the total arrival of different commodities taken together in eNAM markets was traded through the electronic portal. However, markets like Fatehnagar (67 percent), Gangapora (35 percent) and Bandikui (32 percent) have done fairly well. Out of 25 markets connected to eNAM portal, only five markets have been able to shift more than 25 percent of the arrivals to the platform of the national market, another 9 markets have this figure in double digits ranging from 11.98 to 24.69 percent.

The remaining 11 markets have to improve proportion of arrivals getting traded on eNAM platform to help establish a true state level market for agricultural commodities.

Considering the type of commodities arriving in these markets will have different trade importance, accordingly an assessment of trade taking place on eNAM in value terms has also been made (Table 2). The table reveals that nearly 50 percent of the total trade performed on eNAM in 25 markets from Rajasthan during the agricultural year 2016-17 has come only from 5 markets namely Merta City, Nagour, Kota, Ramganj Mandi and Padampur in the same order. Some of the markets have to speed up their task as suggested by their share in total trade performed on eNAM of less than one percent like Mandawari, Nokha, Kaman, Keshoraipatan and Niwai.

Commodity-wise Trade on National Agricultural Market

In order to assess any preference for commodities by the system, the commodity-wise analysis on arrivals across all eNAM markets in the State has been made and results are presented in Table 3.

The table suggests encouraging results for some commodities with reasonable arrivals like Bengal Gram, Bengal Gram (Desi), Soya Seeds (White) and Black Gram with more than 30 percent arrival being captured through the electronic portal followed by Bengal Gram (Dollar), Masoor, Maize, Bajra, Soybean, Wheat and Green Gram.

In terms of value of trade, nearly 90 percent of value of total commodities traded on the electronic portal across all markets during agricultural year 2016-17 has come from only five crops namely Mustard, Bengal Gram, Green Gram, Wheat and Black Gram. This suggests a kind of suitability of the portal for pulses and oilseeds with wheat being the only exception.

The Group-wise analysis of commodities in terms of arrivals and value of trade as a proportion of total arrival and value of trade taking place on eNAM Portal, suggests preference for oilseeds and pulses followed by coarse cereals and cereals. Results are not very encouraging for crops like spices and medicinal plants. It may be for reasons that either their marketing system is highly established or a market of importance for these crops has so far not been covered under the scheme (Fig 2 & 3).

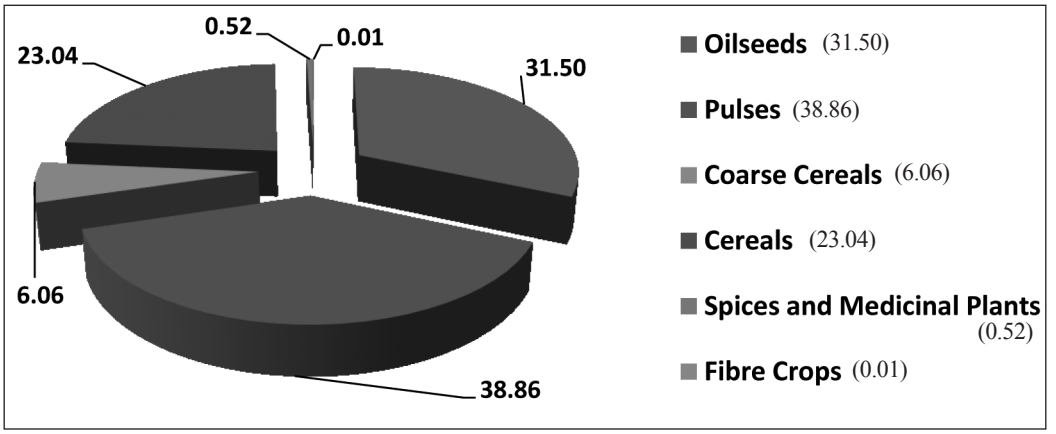

Figure 2. Proportion of total arrivals of different group of commodities traded on electronic portal across all eNAM markets

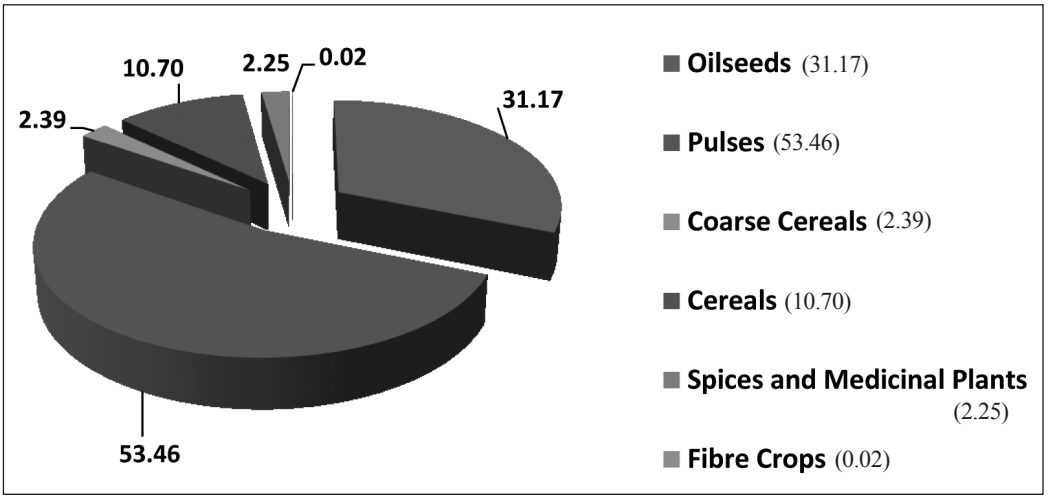

Figure 3. Proportion of total value of trade of different group of commodities performed on electronic portal across all eNAM markets

Table 1. Status of Performance of eNAM at All India Level - March2017

State	APMC Integrated[1]	No of Mandies Live	No of Regulated Principal Yards	No of Traders Registered[2]	No of Farmers Registered[2]	No of Commodities	Value Traded Rs Lakh[3]
Andhra Pradesh	22 (5.23)	22	190	1072 (49)	30450 (1384)	19	41215 (1.64)
Chhattisgarh	14 (3.33)	14	69	2646 (189)	17486 (1249)	7	15087 (0.60)
Gujarat	40 (9.50)	40	213	7229 (181)	233727 (5843)	46	352932 (14.03)
Haryana	54 (12.83)	54	107	6558 (121)	686673 (12716)	11	1374068 (54.62)
Himachal Pradesh	19 (4.51)	17	10	1166 (61)	10947 (576)	10	3743 (0.15)
Jharkhand	19 (4.51)	19	28	997 (52)	2069 (109)	3	75 (0.00)
Madhya Pradesh	58 (13.78)	58	254	17656 (304)	100181 (1727)	28	29884 (1.19)
Maharashtra	45 (10.69)	44	305	5275 (117)	40742 (905)	--	56 (0.00)
Odisha	10 (2.38)	9	54	331 (33)	10105 (1011)	--	395 (0.02)
Rajasthan	25 (5.94)	25	134	13956 (558)	80026 (3201)	16	14316 (0.57)
Telangana	44 (10.45)	44	150	4907 (112)	481532 (10944)	69	567297 (22.55)
Uttar Pradesh	66 (15.68)	66	250	24352 (369)	2102435 (31855)	48	113604 (4.52)
Uttarakhand	5 (1.19)	5	26	1343 (269)	481 (96)	--	3043 (0.12)
Total	**421 (100.00)**	**417**	**1790**	**87488 (208)**	**3796854 (9019)**	--	**2515714 (100.00)**

Source: enam.gov.in

[1]Figure in parenthesis shows the percentage of total markets integrated with the portal, [2]Figure in parenthesis shows traders/farmers per market in respective state and [3]Figure in parenthesis shows the share of respective state in the total value of trade performed on eNAM

Table 2. Status of market-wise trade during Agricultural Year 2016-17 formarkets covered under eNAM in Rajasthan

Market	Commodities Traded on eNAM (in Quintals)			Value of Commodities Traded on eNAM (Rs Lakhs)			
	Commodity Arrivals (Quintal)	Commodity Traded (Quintal	Trade on eNAM (%)	Commodity Traded (Rs Lakhs)	Share of Total Trade on eNAM	Cumulative Share	Markets
Fatehnagar	35538	23960	67.42	1683.92	14.33	14.33	Merta City
Gangapura	59642	21014	35.23	1129.85	9.62	23.95	Nagour
Bandikui	29968	9450	31.53	085.93	9.24	33.19	Kota
Nagar	23189	6037	26.03	1040.98	8.86	42.05	Ramganj Mandi
Atru	35560	8978	25.25	809.38	6.89	48.93	Padampur
Nadbai	30950	7643	24.69	735.39	6.26	55.19	Baran
Bikaner Grain	48456	10459	21.59	661.61	5.63	60.82	Gangapura
Mandawari	16831	3024	17.97	651.71	5.55	66.37	Hindoun
Nagour	157054	26023	16.57	514.59	4.38	70.75	Bundi
Sri Madhopur	17035	2729	16.02	511.26	4.35	75.10	Bikaner Grain
Hindoun	183202	29059	15.86	453.46	3.86	78.96	Sri Ganganagar Grain
Keshoraipatan	29536	4391	14.87	375.21	3.19	82.15	Fatehnagar
Kaman	18241	2633	14.44	309.94	2.64	84.79	Jodhpur Grain
Ramganj Mandi	200183	23981	11.98	306.02	2.60	87.39	Atru
Sri Ganganagar Grain	186653	16770	8.98	277.14	2.36	89.75	Sumerpur
Sumerpur	153369	12621	8.23	229.01	1.95	91.70	Nadbai
Merta City	634602	44087	6.95	221.86	1.89	93.59	Bandikui
Padampur	472791	26065	5.51	180.62	1.54	95.12	Nagar
Deoli	97312	4807	4.94	136.43	1.16	96.29	Deoli
Kota	595675	26379	4.43	94.94	0.81	97.09	Mandawari
Baran	347980	15339	4.41	82.94	0.71	97.80	Nokha
Bundi	364816	15866	4.35	75.83	0.65	98.45	Kaman
Nokha	118560	2625	2.21	73.57	0.63	99.07	Keshoraipatan
Jodhpur Grain	175747	3234	1.84	66.36	0.56	99.64	Sri Madhopur
Niwai	3395561	1664	0.05	42.79	0.36	100.00	Niwai
Grand Total	**7428449**	**348836**	**4.70**	**11750.72**	**100.00**	**200.00**	**Grand Total**

Source: enam.gov.in

Table 3. Status of commodity-wise trade during Agricultural Year 2016-17 for markets covered under eNAM in Rajasthan

Commodities	Commodities Traded on eNAM (in Quintals)			Value of Commodities Traded on eNAM (Rs Lakhs)			Commodities
	Commodity Arrivals (Quintal)	Commodity Traded (Quintal)	Trade on eNAM (%)	Commodity Traded (Rs Lakhs)	Share of Total Trade on eNAM	Cumulative Share	
Gingelly (Sesame Seed) - White	4	3	88.57	3294.81	28.04	28.04	Mustard
Urad Dal	209	119	56.86	3125.04	26.59	54.63	Chana (Bengal Gram)
Chana (Bengal Gram)-Desi	4023	1705	42.38	2111.18	17.97	72.60	Moong Whole (Green Gram)
Soya Seeds (White)	3599	1512	42.02	1256.82	10.70	83.30	Wheat
Bajra-Hybrid	930	355	38.19	651.92	5.55	88.84	Urad (Black Gram)
Arhar Whole / Tur (Red Gram)	442	165	37.33	221.17	1.88	90.73	Cummin
Ground Nut	3	1	36.88	180.33	1.53	92.26	Soyabeans
Urad (Black Gram)	39872	13653	34.24	118.25	1.01	93.27	Maize
Chana (Bengal Gram)	211656	62978	29.75	113.75	0.97	94.23	Guar Seeds
Chana (Bengal Gram)- Dollar	3884	1121	28.87	97.74	0.83	95.07	Bajra
Mustard White Seeds	654	186	28.48	86.44	0.74	95.80	Castor Seed
Masoor	4738	1141	24.08	83.77	0.71	96.52	Chana (Bengal Gram)-Desi
Sesame Seed	642	155	24.07	72.06	0.61	97.13	Moth
Maize	37724	8465	22.44	60.79	0.52	97.65	Barley (Jau)
Tur/Arhar	62	12	19.35	57.24	0.49	98.13	Chana (Bengal Gram)- Dollar
Bajra	46014	7759	16.86	51.72	0.44	98.57	Masoor
Soyabeans	46313	6412	13.84	43.52	0.37	98.94	Soya Seeds (White)
Wheat	645838	80348	12.44	42.95	0.37	99.31	Isabgol (Psyllium Husk)
Moong Whole (Green Gram)	411722	48688	11.83	20.22	0.17	99.48	Ground Nut New
Castor Seed	31208	2067	6.62	18.36	0.16	99.64	Soya-Yellow
Ground Nut New	9306	597	6.41	9.23	0.08	99.72	Sesame Seed
Taramira	2347	137	5.86	6.09	0.05	99.77	Mustard White Seeds
Guar Seeds	77482	3540	4.57	5.49	0.05	99.81	Urad Dal
Barley (Jau)	146925	4548	3.10	4.81	0.04	99.85	Taramira
Moth	86157	2329	2.70	4.61	0.04	99.89	Arhar Whole / Tur (Red Gram)
Green Gram	2237	59	2.63	4.48	0.04	99.93	Bajra-Hybrid
Mustard	3981097	98210	2.47	2.73	0.02	99.96	American-Cotton
Isabgol (Psyllium Husk)	23591	451	1.91	2.08	0.02	99.97	Green Gram
Cummin	75985	1363	1.79	2.08	0.02	99.99	Sounf
Soya-Yellow	46454	649	1.40	0.30	0.00	99.99	Tur/Arhar
Sounf	3409	46	1.35	0.19	0.00	100.00	Gingelly (Sesame Seed)-White
Fenugreek (Hari Methi)	441	5	1.13	0.18	0.00	100.00	Gingelly (Sesame Seed)-Black
Coriander Whole	664	3	0.50	0.16	0.00	100.00	Fenugreek (Hari Methi)
Gingelly (Sesame Seed)- Black	779	3	0.38	0.12	0.00	100.00	Coriander Whole
American-Cotton	15205	48	0.32	0.07	0.00	100.00	Paddy
Paddy	42928	4	0.01	0.06	0.00	100.00	Ground Nut
Grand Total	**6004541**	**348836**	**5.81**	**11750.72**	100.00	200.00	**Grand Total**

Source: enam.gov.in

Impact of eNAM on Prices

An attempt has been made in this section to analyze the impact of eNAM,if any, on quality of prices.The price quality was assessed for three crops i.e. Mustard from Oilseeds, Gram from Pulses and Coriander from Spices by comparing month-wise variation in daily prices over time i.e. January - June 2017 with January - June 2016 and through an index developed for the purpose.

Mustard (Kota)

The mustard from Kota market has been taken to represent oilseeds. Kota is the second most important market for mustard in the state after Alwar (not covered under eNAM) capturing more than 5 percent of the total arrival coming to wholesale markets of Rajasthan. The analysis for the crop has been presented in Figure 4. Figure (a)-(c) depicts inter-day variation in prices for a particular month in 2017 and their comparison with the corresponding figures from year 2016 while in Figure (d) a lower index value indicates that more number of transactions have taken place near maximum price leading to better realization by farmers. The analysis reveals that the month-wise variation in daily prices (minimum, maximum and modal)prices has come down in almost all the months considered for the year 2017 in comparison to 2016 with some cases of reverse trend in the months of March, April and May. It may be due to the inability of the portal to respond during months of higher arrivals. Index value also suggests that the quality of prices has improved in all the months except March reflecting higher realization of prices by farmers.

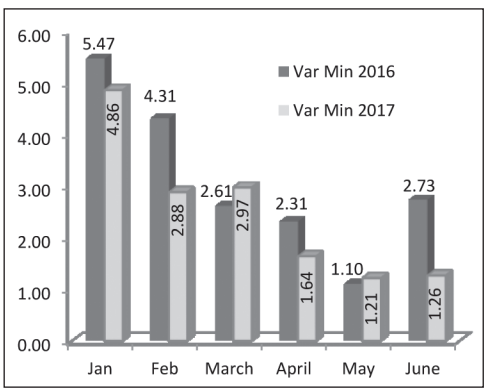

Figure 4 (a). Month-wise variation in Minimum daily prices of Mustard

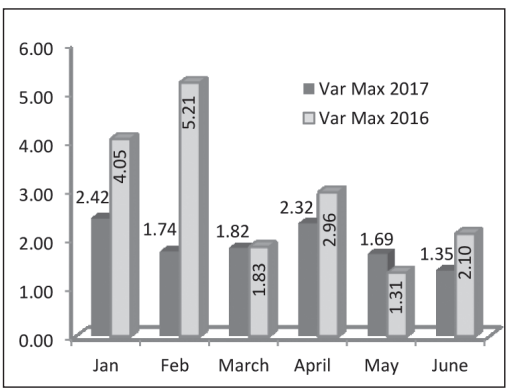

Figure 4 (b). Month-wise variation in Maximum daily prices of Mustard

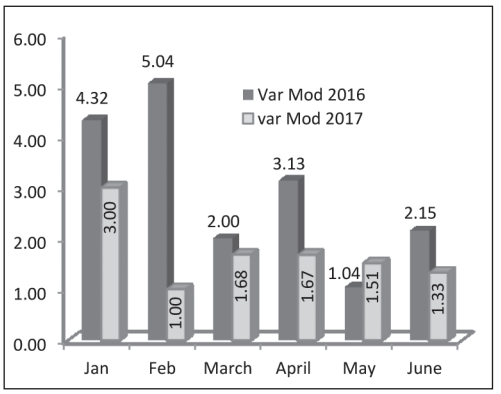

Figure 4 (c). Month-wise variation in Modal daily prices of Mustard

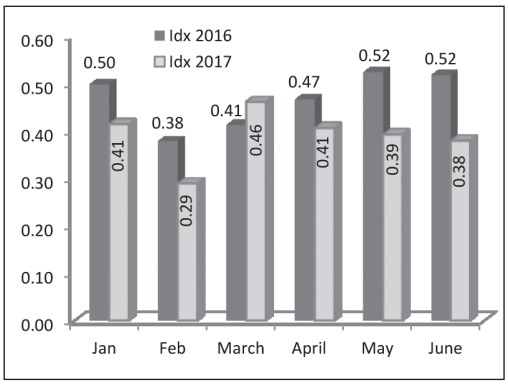

Figure 4 (d). Comparison of Monthly Price Index of Mustard

Bengal Gram-Bikaner

Bengal Gram has been taken from the Pulses group of crops. Bikaner is the leading wholesale market in Rajasthan representing nearly one-fourth of the total arrivals of Gram coming to wholesale markets of Rajasthan. The information on prices for the period January to March 2017 was not available, however, the analysis for the rest of the period is presented in Figure 5. The figure suggests that the month-wise variation in daily prices (minimum, maximum and modal) has come down in all the months considered for year 2017 in comparison to 2016. The same has been reflected by favorable Index values also suggesting an improvement though marginal in the quality of prices.

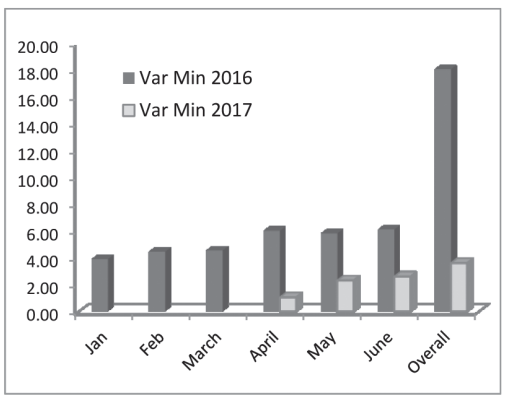

Figure 5 (a). Month-wise variation in Minimum daily prices of Gram

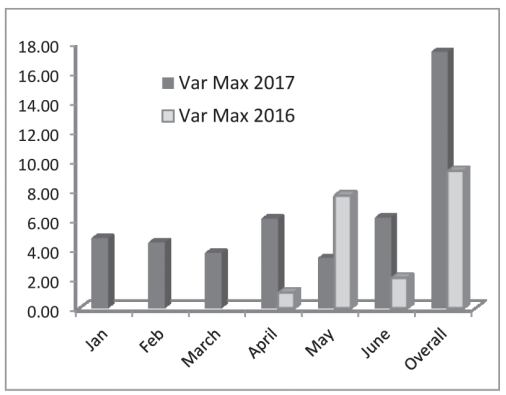

Figure 5 (b). Month-wise variation in Maximum daily prices of Gram

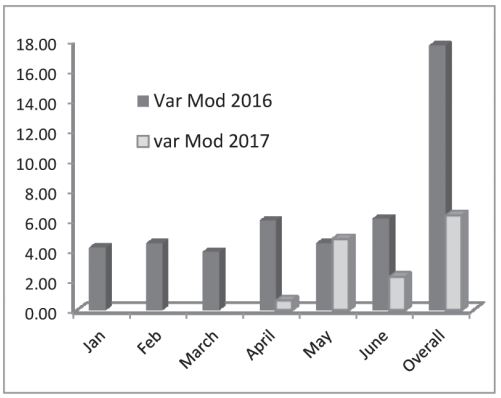

Figure 5 (c). Month-wise variation in Modal daily prices of Gram

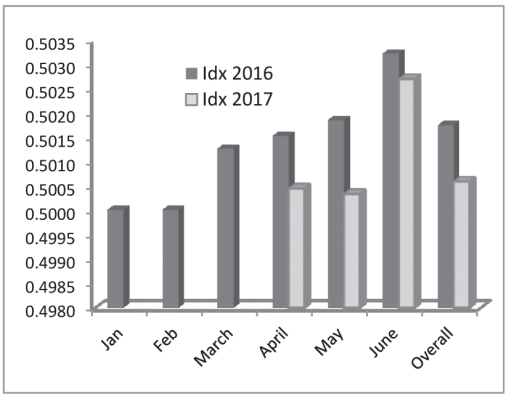

Figure 5 (d). Comparison of Monthly Price Index of Gram

Coriander- Ramganj Mandi

The Coriander arriving in Ramganj Mandi has been considered for drawing a rough picture for spices. More than one-fourth of the total arrivals in wholesale markets in Rajasthan is being catered by Ramganj Mandi. The analysis is presented in Figure 6. The figure for Corriander indicates mixed result for all the parameters considered under analysis except for minimum prices where reduction in variation has been observed. This calls for further detailed analysis to work out the suitability of such markets, if any, for any specific crops.

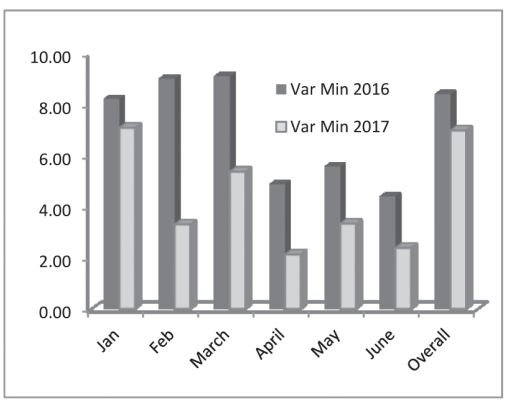

Figure 6 (a). Month-wise variation in Minimum daily prices of Coriander

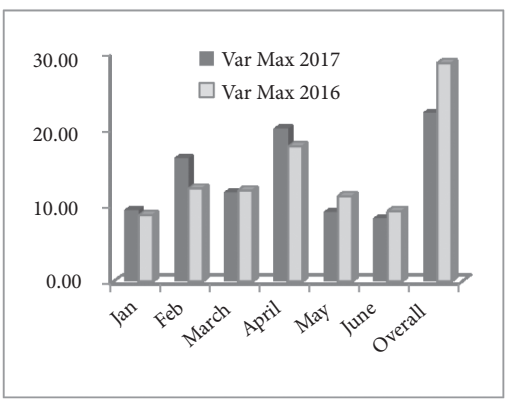

Figure 6 (b). Month-wise variation in Maximum daily prices of Coriander

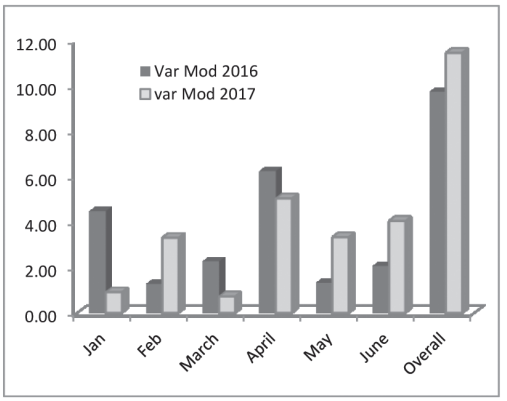

Figure 6 (c). Month-wise variation in Modal daily prices of Coriander

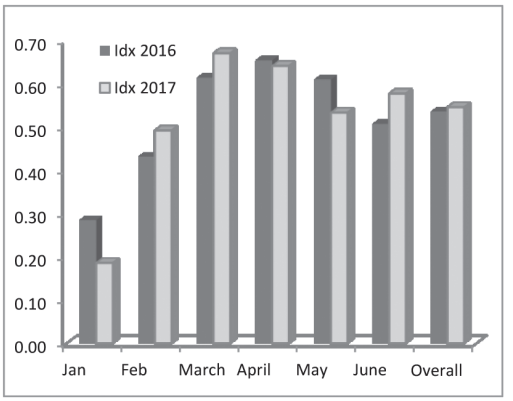

Figure 6 (d). Comparison of Monthly Price Index of Coriander

Conclusion & Suggestions

The study suggests that the coverage of states under eNAM is restricted to limited number of states. A total of 421 markets are coming just from 13 states. Within these states as well, the distribution is highly skewed as nearly two-third of the total of 421 markets covered under eNAM is coming just from five states. Such a spread may act as a dampener for the objective of the Scheme to achieve a true national market for agricultural commodities. There is need to enhance balanced spread of states under the Scheme including northeastern region. Reforms may be one of the major factors limiting states from coming forward. The Government needs to sensitize states on adoption of the provisions suggested under the recently introduced revised Model Act namely Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act 2017 enabling them to participate.

Integrating farmers with the portal is important for making the initiative successful and inclusive as awareness amongst farming community has been observed to be low (Shalendra et al., 2013).Though, over 3.80 million farmers have been registered across 421 markets but it is equally important to educate them on benefits and procedure of eNAM and preparation of produce for such markets to ensure their inclusion.

The National Agricultural Market covers only 23.52 percent of the regulated markets (principal yards) of the participating states. This may limit the scope of scheme in establishing agricultural marketing operating at state and gradually at national level. There is need to enhance the coverage to have sufficient price signals and attract trade. A more focused and scientific approach in terms of identification of markets may also help in enhancing the impact.

The shift in trade to eNAM platform has been lukewarm as suggested by figures from Rajasthan. Only 14 markets have been able to shift more than 10 percent of the arrivals to the electronic platform. The number viewed in the light of total regulated wholesale markets (Principal yards only) seems to be insignificant. These markets need to adopt different means like education of stakeholders and creating sufficient support infrastructure to improve trade on the e-portal.

Commodity-wise analysis suggest that more than 90 percent of the trade in value terms in Rajasthan (of the total trade on eNAM Portal) comes only from five commodities mainly pulses and oilseeds. It suggests that such a market may work good for a specific group of crops. States need to identify their potential crops in place of focusing on a wide range of commodities. This will help them in developing support infrastructure, providing human resources and educating stakeholders.

The scheme has shown positive influence on quality of prices but failed to do so during high arrival months. This suggests that markets are finding it difficult to handle high level of arrivals during the time of harvest. Markets may overcome such issues over time with development of infrastructure and expertise. The Government needs to have a long-term policy for development of such a concept having potential to resolve numerous problems prevailing in agricultural marketing.

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