



Economic Benefits of Farmers Through eNAM Process -A Empirical Study

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Date of Submission: 01-04-2023

Date of Acceptance: 11-04-2023

I. Introduction

In India agricultural marketing was governed by a set of public owned wholesale markets which were established during the colonial period under the APMC Act. The regulatory mechanism, which is more than 100 years old, nodoubt, has put in place some good marketing practices but the system is also fighting with few shortcomings due to various regulatory mechanisms and restrictions on trading of agricultural commodities. Therefore, to mainstream the activities the Government of India brought reforms to the sector through the Model Act 2003 and APLM Act 2017. The objective of all these attempts was to bring in reforms, mainly to remove restrictions in agricultural trade and induce a competitive environment by ensuring more and more participation of traders by leveraging ICT and alternative market channels.

In view of this to address the complex regulatory mechanism and restrictions, the Union Budget 2014–15 proposed the idea of a unified common market platform, launched on 14th April, 2016, a Pan-India electronic trading portal known as National Agricultural Market (e-NAM). It is a virtual market platform linking the existing physical Mandis i.e. APMCs electronically with a theme of “one nation, one market” as eNAM market.

e-NAM promotes uniformity, streamlining of procedures across the integrated markets, removes the information gap between buyers and sellers and promotes real time price discovery based on actual demand and supply in the market. It provides transparency in the auction process and access to a nationwide market to both the parties.

Objectives of e-NAM:

1. A national e-market platform for transparent sale transactions and price discovery initially in regulated markets. Willing States to accordingly enact suitable provisions in their APMC Act for

promotion of e trading by their State Agricultural Marketing Board/APMC.

2. Liberal licensing of traders / buyers and commission agents by State authorities without any pre-condition of physical presence or possession of shop /premises in the market yard.

3. One license for a trader valid across all markets in the State.

4. Harmonization of quality standards of agricultural produce and provision for assaying (quality testing) infrastructure in every market to enable informed bidding by buyers. Common tradable parameters have so far been developed for 125 commodities.

5. Single point levy of market fees, i.e. on the first wholesale purchase from the farmer.

6. Provision of Soil Testing Laboratories in/ or near the selected mandi to facilitate visiting farmers to access this facility in the mandi itself.

e-NAM Portal helps in providing a single window service in all aspects like commodity arrivals, price information, buy & sell trade offers, provision to respond to trade offers etc. While material flow (agriculture produce) continues to happen through Mandis (markets). This online market reduces transaction costs and helps in overcoming the information asymmetry. It also helps in scientific price discovery through increased participation of traders across the country. Moreover, it has its positive impacts on the Institution and physical environment, balanced development across the states, competitiveness, farmer's participation, better price, price transparency, reduction in number of intermediaries and creation of new markets.

Establishment of e-NAM Model APLM Act, 2017

In April 2017, the Union Ministry of Agriculture and Farmers Welfare drafted the Model Agricultural Produce and Livestock Marketing (Promotion &



Facilitation) Act, 2017. Salient features with respect to e-NAM under the new Model Act are as under-

1. Abolition of fragmentation of market by removing the concept of notified market area within the State/Union Territory (UT), which means, the APLM Act provides for the recognition of a state/UT as a single market.

2. The act advocates the promotion of direct interface between farmers and end users/processors/exporters/bulk-buyers to reduce the price spread thereby bringing advantage to both the parties involved in a trade.

3. Enhancement of Transparency through e-trading in various trade operations and integration of markets across geographies.

4. Provision of single point levy of market fee and unified single trading license across the State/UT to realize cost-effective transactions.

5. Promotion of the national market for agricultural produce through provisioning of inter-state trading license, grading and standardization and quality certification.

II. Status of e-NAM in India

With the aim of promoting uniformity in Agricultural Marketing in India, 1,000 Mandis have been integrated across 18 states and 2 Union Territories. The details of Mandis covered under e-NAM are depicted in the table 1.

Table 1: e-NAM Markets Across India

Sl. No	State	Total Mandi
1	Andhra Pradesh	33
2	Chandigarh (UT)	01
3	Chhattisgarh	14
4	Gujarat	122
5	Haryana	81
6	Himachal Pradesh	19
7	Jammu and Kashmir (UT)	02
8	Jharkhand	19
9	Karnataka	02
10	Kerala	06
11	Madhya Pradesh	80
12	Maharashtra	118
13	Odisha	41
14	Puducherry (UT)	02
15	Punjab	37
16	Rajasthan	144
17	Tamil Nadu	63
18	Telangana	57
19	Uttar Pradesh	125
20	Uttarakhand	16
21	West Bengal	18
Total Mandis		1000

Source: <https://e-NAM.gov.in/NAM/home/mandis.html>

Commodities traded under e-NAM: eNAM provides a virtual platform to farmers and traders to perform commerce and trade across the states with one nation one market approach. 175 Commodities including food grains, oilseeds, fruits & vegetables, spices etc. are listed in the eNAM market. Till the 30th

June 2020, agricultural produce having total volume of 3.54 crore MT with value of 1,02,529 crores has been traded through e-NAM portal. Table 2 shows the breakup of total 175 commodities traded under e-NAM.



Table 2: Commodities covered under e-NAM

Commodities group	Total Number
Food Grains / Cereals	26
Oilseeds	14
Fruits	31
Vegetables	50
Spices	16
Miscellaneous	38
Total	175

Source: <https://e-NAM.gov.in/web/commodity/commodity-list>

III. Trade Performance in eNAM platform:

Trade performance of eNAM was analyzed in terms of Quantity and value of commodity traded in the eNAM platform to understand the acceptance of eNAM among participants.

Table 3: Quantity of commodity traded in eNAM platform from 2016-17 to 2019-20
Quantity: Metric Tons

Year	Food Grains	Oilseeds	Fruits	Vegetables	Spices	Miscellaneous
2016-17	4247151.72	326332.80	36008.73	274885.19	111472.16	5576.73
2017-18	6797886.89	787654.52	161714.88	713327.10	590019.81	674156.04
2018-19	4754556.4	958727.75	137674.81	944103.63	763995.30	711643.93
2019-20	6453645.99	991645.07	141366.57	981917.94	743672.09	1227013.01
CAGR (percent)	9.39	42.35	48.32	50.68	81.34	407.10

Source: <https://e-NAM.gov.in/>

Table 3 indicates quantity of commodities traded under various heads through eNAM platform from 2016-17 to 2019-20 and corresponding Compound Annual Growth Rate (CAGR) of the same.

Table 4: Value of commodity traded in eNAM platform from 2016-17 to 2019-20
Value: Rs. in crores

Year	Food Grains	Oilseeds	Fruits	Vegetables	Spices	Miscellaneous
2016-17	8203.22	1325.81	55.22	171.50	816.00	10571.75
2017-18	14032.82	2932.49	358.48	721.13	4078.68	22123.60
2018-19	12502.25	3570.41	377.42	766.83	5473.89	22690.80
2019-20	16411.35	3964.59	331.65	1202.51	6672.78	28582.88
CAGR (percent)	21.71	41.67	72.11	80.47	93.45	35.11

Source: <https://e-NAM.gov.in/>

Similarly, Table 4 exhibits value of commodity traded in various subheads in eNAM platform from 2016-17 to 2019-20 and their corresponding Compound Annual Growth Rates

(CAGR) in the online marketplace i.e. eNAM platform.

Table 3 and 4 reveals that compound annual growth rate of traded quantity and value of food grain



is 9.39 percent and 21.71 percent respectively, which indicates that compound growth rate of food grain trade in eNAM platform is showing comparatively higher positive growth in terms of quality and value comparison since inception of eNAM. Likewise, the compound growth rate of oil seeds trade in eNAM platform is 42.35 percent and 41.67 percent respectively for quantity traded and value terms, which shows that trade of oil seed in eNAM platform is also having higher positive growth during study period.

Performance of fruits and vegetables trade in eNAM platform were also analyzed and the data reveals the positive growth rate with 48.32 percent of quantity and 72.11 percent of value of fruits, and 50.68 percent of quantity and 80.47 percent value of vegetables are being transacted during 2016-17 to 2019-20.

Similarly, there is a high rate of positive growth in case of spices were found with 81.34 percent growth in terms of quantity traded and 93.45 percent growth in terms of value during the study period.

In case of Miscellaneous commodities which are not included in any of group, again remarkable growth rate since inception of eNAM was observed. Which shows that in terms of Quantity traded growth rate of 407.10 percent and in terms of value traded the growth rate of 35.11 percent were achieved through eNAM platform during 2016-17 to 2019-20.

The overall analysis indicates that, eNAM is achieving a milestone in the transition of age-old system of trading in the primary Agriculture market into modern marketing through online trading. Constant effort from government in development of digital platform across the nation, popularizing the system through stakeholder sensitization programmes and increasing the transparency in the existing system through digital operations are few reasons for this gradual changes and witnessed positive growth in the past few years.

IV. e-NAM Process Flow

1. Gate entry: Trade process flow starts from the Gate entry. Once a farmer entered the market along with his/her commodity, he/she has to inform to the gate and accordingly an electronic gate entry slip is generated. An entry slip consists of lot code (as a sequence of Mandi code-year-month-date-lot of the day), Farmer's name, Mobile Number of the farmer, Village, Commission Agent's name and Company, Commodity, number of Bags, Bag type, Approximate quantity, Vehicle Number, Market/sub

market detail, Lot type (primary or secondary sales) and government ID. In this process, Registration is done for the first time mandi visitors.

2. Unloading of Commodity at Auction/Trading platform and Assaying: After gate entry, farmer must unload the commodity at the Auction platform. If farmer wish to trade with any particular trader or commission agent in that case on his/her demand the particular commission agent/trader has to be allocated to farmer and the entry has to be made in the gate entry slip, otherwise, farmers can unload their produce in any of the trading platforms. The lot ID (gate entry slip) is displayed on the top of the lot in the trading platform. The Assaying Lab technician from the APMC will visit the lot and collect a minimum of 250grams of the sample of the commodity for assaying. The quantum of sample may vary from 250-500 gm as per the commodity specific assaying requirement. After drawing the sample, the assaying process is completed and the assaying report against the lot number is uploaded to e-NAM website for the next process. However, if the assaying machinery is not available (for some of the commodities like moth and spices) the quality of the commodity is assessed on the basis of a physical examination by trader's/commission agents.

3. Generate e-bidding: Based on the assaying report, mandi officials generate the e-bidding and fix the maximum bidding time. Traders will be quoting their price electronically for their interested lot. The same will be displayed on the display board at APMC.

4. Bid Declaration: Once the bidding time is over, a message of the highest Bid price is sent to the farmer's registered mobile number or he can view lot number wise final price displayed on the e-display board at APMC. If the farmer accepts the final price, the lot will be allotted to the trader for final purchase. If the farmer does not agree with the price, he/she may again go for e-auction.

5. Weighment of sold commodity: After successful completion of the auction process, the next process is Weighment of the commodity. Weighing of the commodity is done on the electronic weighing machine by the weigh men appointed by the mandi.

6. Generation of Sale Agreement: A primary bill is generated after Weighment. The sale bill contains Trader name and license number, Farmer detail, Commission agent Name and his license number, Agreement number, Commodity detail, packaging type and weight of the bag, Commodity price, Farmers price, Commission agent fee, Mandi fee etc.

7. Payment to farmers & others: Once the sale bill is generated, the buyer sends the money



through RTGS/NEFT/ cash deposit through bank challan. At present farmers are demanding immediate cash, hence, the buyer pays cash to the farmer directly.

8. Gate exit pass and gate exit: After successful payment to the farmer, the commodity is handed over to the trader and subsequently the mandi official generates the exit pass which contains gate exit number, exit type, Vehicle number, APMC detail, Trader, lot type, Commodity, lot code, Bag type, number of bag and weight/ total number.

V. Conclusion

The e-NAM Portal helps in providing a single window service in all aspects like commodity arrivals & prices, buy & sell trade offers, provision to respond to trade offers etc. While material flow (agriculture produce) continues to happen through mandis (markets). An online market reduces costs of transaction and helps in overcoming information asymmetry. It also helps in scientific price discovery through increased participation of traders across the country. A Unified Agriculture Market has its positive impacts on Institution and physical environment, balanced development across the states, competitiveness, farmer's participation, better price, price transparency, reduction in number of intermediaries and creation of newmarkets.

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