

# A study of eNAM in select APMCs across three states and recommendations for improvement

April 2018

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# Overall performance of eNAM since April, 2016

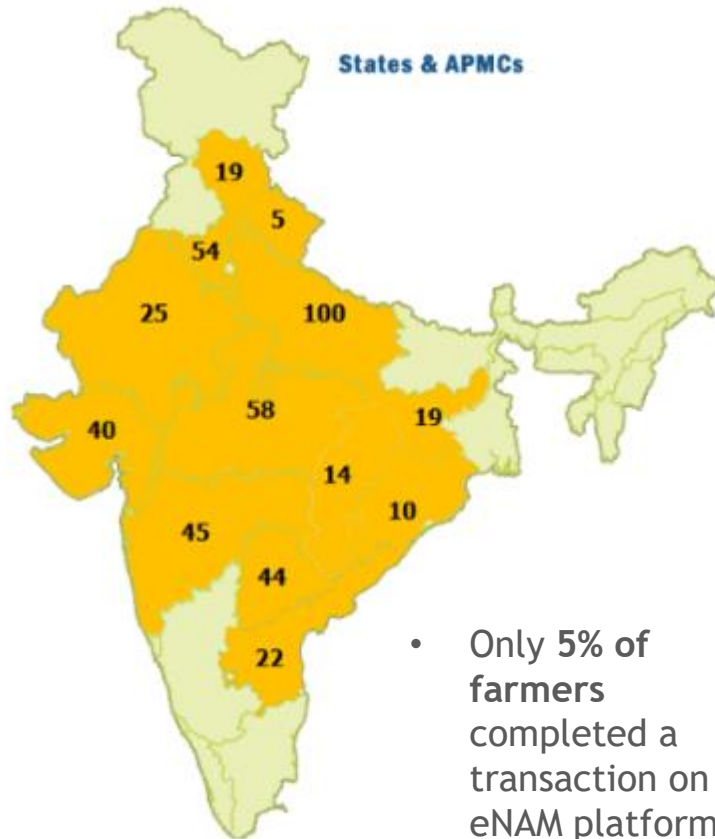
Launched on 14th April, 2016, covering 8 states and 21 APMCs

Covered 10 states, 250 APMCs by September, 2016

Covered 13 states, 417 APMCs by March, 2017

Covered 13 states, 455 APMCs by May, 2017

Target 585 APMCs by May, 2018



Buyers: 101,000  
 Commission agents: 53,163  
 Sellers (farmers): 73,50,000

### Major Commodity

Wheat, chilies, paddy, cotton, potato, castor seed, maize, groundnuts

100 commodities are available on the eNAM platform

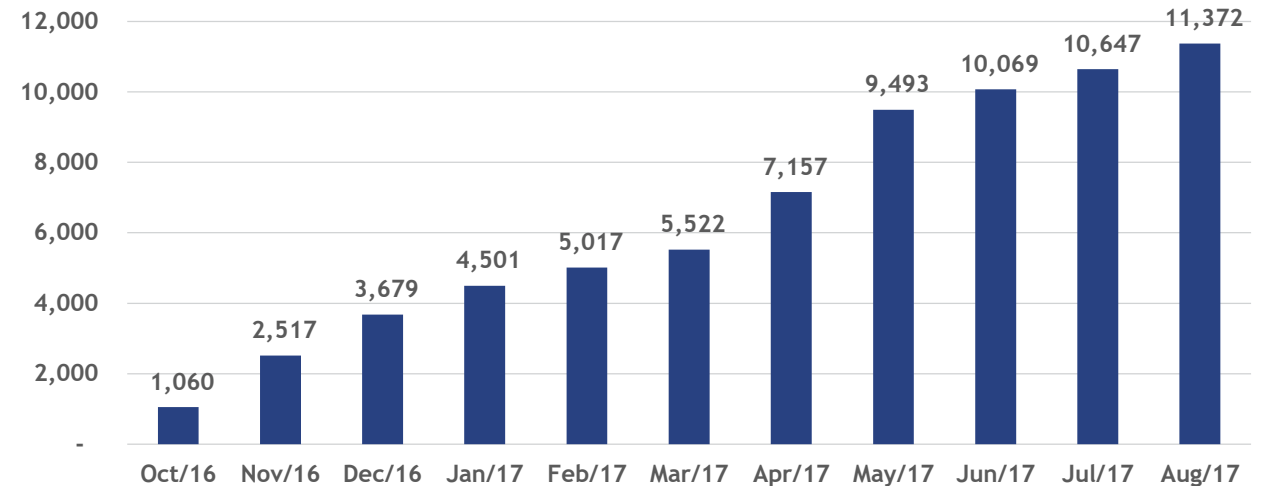
### Total traded quantity (tons)

15,200,000

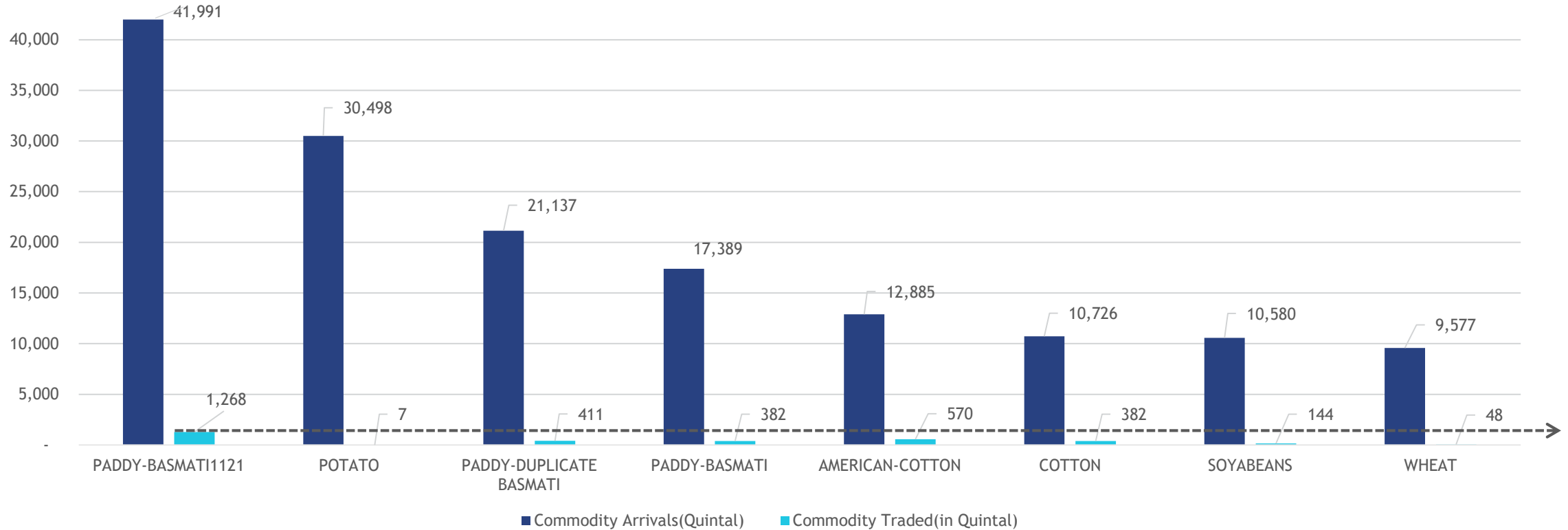
### Total traded value (crore)

INR 36,275

Cumulative Total



# Less than 1% of trading reportedly takes place on the eNAM platform



- As reported by eNAM, the total transactions conducted through the platform falls between 0% - 4% of the total volume of commodity traded.
- MSC observed that the total transactions (excluding payments\*) conducted on eNAM is less than 1% of the total transactions conducted in a *mandi*
- This percentage further decreases if we include payments processed through the eNAM platform


Source: <http://www.enam.gov.in/NAM/home/index.html>

- Payments are sale proceeds from traders accounts to farmers accounts, channeled through an escrow account that eNAM manages.

# How agriculture commodities changes hands: traditional process vs. eNAM

	Gate entry	Quality assaying	Traditional auction	Payment and settlement
Traditional process	<ul style="list-style-type: none"> <li>Farmers bring their produce to the <i>mandi</i>, may pay a small fee for entry at the gate of the <i>mandi</i></li> </ul>	<ul style="list-style-type: none"> <li>The farmers arrive at an auction platform or commission agent (CA) shop</li> <li>Traders and CAs perform quality assaying through physical inspection for each lot before auctioning</li> </ul>	<ul style="list-style-type: none"> <li>A group of traders, CAs, and <i>mandi</i> officials goes to each lot and carries out the auctioning process one by one</li> <li>Only the price is fixed at the time of auction and the <i>mandi</i> official generates a slip for it</li> </ul>	<ul style="list-style-type: none"> <li>Final weighing is done at the traders' shop, a slip is generated to record the final payments</li> <li>The farmer receive payments either in cash, check, or in their accounts</li> <li>The trader pays <i>mandi</i> and other fees before taking out the produce from the <i>mandi</i></li> </ul>

# How agriculture commodities changes hands: traditional process vs. eNAM

	Lot-generation	Quality assaying	e-auction	Payment and settlement
	<ul style="list-style-type: none"> <li>• <b>Registration</b> of farmers is done at the <b>entry gate</b> of the <i>mandi</i> if not done earlier</li> <li>• <b>Personal details</b> as well as KYC, land, commodity, bank details, and <b>commission agent (CA)</b> details are entered in the eNAM portal</li> <li>• Commodity and vehicle is weighed and noted. This information is updated on eNAM either automatically or manually</li> <li>• A <b>lot number</b> is generated</li> </ul>	<ul style="list-style-type: none"> <li>• Farmers bring their produce at the auction platform or at CA shop</li> <li>• A <b>sample from each lot is collected and tested for quality</b> (as per the <a href="#">quality parameters</a> specified by eNAM), in a lab at the <i>mandi</i>, which is then recorded and uploaded on the eNAM portal against the lot numbers</li> </ul>	<ul style="list-style-type: none"> <li>• A <b>bid is created</b> by the <i>mandi</i> officials through the eNAM portal for a specified time slot</li> <li>• The registered traders <b>bid for a particular commodity through their login IDs</b></li> <li>• Traders bid till the end of auction time. The <b>highest bid on a lot</b> closes the deal, and a sale agreement is generated</li> </ul>	<ul style="list-style-type: none"> <li>• The trader transfers the amount to the escrow <b>account of eNAM</b> along with the commission and <i>mandi</i> fee either online or offline</li> <li>• The farmers get a <b>direct transfer to their accounts</b></li> <li>• Once all payments are done and realized, the commodity with the particular lot exits from the <i>mandi</i></li> </ul>

# Challenges to the eNAM process

## Lot generation



- Lack of awareness of the eNAM scheme
- Inadequate infrastructure
- Complex registration process
- Absence of a unique identifier

## Quality assaying



- Inadequate infrastructure, that is, equipment, manpower, and space for quality assaying (QA)
- Complete lack of trust of the traders or buyers
- Managing peak load or high quantity arrivals
- Mismatch between the traditional and the automated processes

## e-auction



- Undeveloped IT infrastructure
- Unavailability of key information during auctioning process leads to distrust among the traders
- e-auction takes much longer than the conventional process
- High opportunity cost for traders

## Payments and settlement



- Lack of trust in technology
- Farmers require cash payment to meet immediate expenses
- Digital payments are a barrier to repayment of informal loans that farmers have taken from commission agents

# Recommendations and interventions

Bulk registration and creation of a unique ID

Process reengineering (quality assaying, e-auction, and payments)

Selective privatization of eNAM operations, with risk underwriting

Investment in high-quality equipment for comprehensive testing

Revamp of the eNAM IT platform and supplementary infrastructure (access to the Internet, power supply, WiFi)

Awareness building of farmers and capacity building for traders

Assignment of hard targets, with a thrust on smaller *mandis* and low-volume commodities to stabilize the model













# Stage-wise recommendations




# Recommendations to assist the lot-generation process to increase farmers' registration on eNAM

	Key points	Potential solutions
	Infrastructure readiness and awareness creation	<ul style="list-style-type: none"> <li>Farmers should be encouraged to pre-register on the eNAM portal, through <b>awareness programs</b> in the catchment area of the <i>mandis</i>. A structured approach and schedule to reach out to the farmers of the catchment area of a <i>mandi</i> can be prepared.</li> <li>The <b>eNAM infrastructure</b> needs to be developed to handle the extent of commodities that arrive at the particular mandi and to streamline the overall lot-generation process. Officials at the <i>mandi</i> can prepare and promote a day-wise schedule for different villages to control the volume of commodities that arrive on a particular day in the <i>mandi</i>.</li> </ul>
	One-stop and advance registration	<ul style="list-style-type: none"> <li><b>Segregating of registration and lot generation:</b> Bulk registration and KYC can be done using <b>large databases from existing government schemes</b>, such as fertilizers, PMFBY, other DBT, to reduce hassles and the time taken in repeating the registration process.</li> </ul>
	Data convergence	<ul style="list-style-type: none"> <li>Using <b>Aadhaar as a unique identifier</b> or creating a new unique identifier to establish the identity of a farmer: This can ease out the lot-generation process for eNAM. The process of <b>integration or convergence of different</b> programs or databases can also enable lot-generation process at multiple outlets through PACS and CSC, among others.</li> </ul>



# Recommendations to reduce the barriers to the uptake of quality assaying in the labs

	Key points	Potential solutions
	Keep quality assaying as an escalation stage	<ul style="list-style-type: none"> <li>Due to a high inflow of commodities in the <i>mandis</i>, the traders could be allocated a time and commodity slot for an initial uptake. Using these slots, they can check the quality in the traditional way before the e-auction. In case of any disputes between the trader and farmer, QA (quality assaying) in the lab can be used to resolve the issue. However, <b>over a period of time, eNAM trading can be based on QA in the lab. Conventional QA can be phased out gradually.</b></li> </ul>
	Outsource the quality assaying process	<ul style="list-style-type: none"> <li>Instead of training <i>mandi</i> officials or concerned department officials to grade the commodities, quality assaying should be outsourced to a suitably qualified, <b>credible, and economically viable third-party entity</b>. This would also help adjust the manpower shortage or idleness during peak or low seasons respectively.</li> </ul>
	Automation of the QA process	<ul style="list-style-type: none"> <li>An <b>automated machine</b> can be installed in each <i>mandi</i> that can be linked to eNAM software. This would bring in efficiency in the QA process and reduce the overall time taken and human intervention in the entire process.</li> <li>Approximate cost of one fully automated testing machine is INR 1.5 million; Covering <b>585 mandis</b> would require nearly INR 9,00 million of an additional budget to be automated.</li> </ul>

# Recommendations to create an enabling environment for e-auction

	Key points	Potential solutions
	Training of traders and CAs	<ul style="list-style-type: none"><li>• More comprehensive and frequent training for the traders and CAs should be conducted to enable them to use the eNAM platform on a computer or their mobile. This would give them the <b>mobility to auction</b> from any place in the <i>mandi</i>, thereby replicating the manual auction process followed currently. This handholding will be critical to the success of eNAM.</li></ul>
	Installation of cameras in quality assaying labs	<ul style="list-style-type: none"><li>• A video of the quality testing in progress can be showcased on screens in the <i>mandis</i> to develop trust towards the quality that is being tested and displayed while e-auctioning. Alternately, some representatives from the traders, CAs, and farmers could be selected to witness the quality testing process. They can then act as ambassadors to build trust among other traders, CAs, and farmers through word of mouth.</li></ul>
	Create an enabling infrastructure	<ul style="list-style-type: none"><li>• The <i>mandi</i> should take the responsibility to <b>arrange for logistics and transportation</b> that would facilitate inter-mandi trading on eNAM. This could be done by outsourcing the tasks related to logistics to a third party. Alongside, software glitches should be worked upon.</li></ul>

# Recommendations to increase the uptake of online payment on the eNAM platform

	Key points	Potential solutions
	Part-cash and part-online payments to farmers	<ul style="list-style-type: none"> <li>Farmers at the initial stage itself should get an option to choose to receive payment <b>partly in cash and the remaining in their bank account</b>. (For example, like in Madhya Pradesh)</li> <li>Part payments in cash will serve the <b>immediate cash needs</b> of farmers (For example, hiring fee for equipment, payment to laborers, among others). Meanwhile, their balance payments can be deposited in their respective bank accounts.</li> <li>A <b>cap can be set for cash payments</b> beyond which a farmer will not be allowed to take payments in cash. (For example, a range can be set as it is in Madhya Pradesh, where farmers are paid from INR 10,000 to a maximum of INR 50,000 in cash)</li> </ul>
	The choice to select the bank account in which farmer wants to receive the payment	<ul style="list-style-type: none"> <li>Farmers at the time of entry (lot-generation) should be given an <b>option to choose their preferred bank account</b> to receive payments.</li> <li>An option should be made available wherein if the farmers want their <b>payment to be deposited into the bank account of their CA</b>. This will address the concerns of the CAs who provide many services to farmers, including credit. Based on a farmer's consent, CAs can later pay them after settling their outstanding dues.</li> </ul>

राज्य कृषि उपज मण्डल समिति बैरसिया जिला भोपाल (मध्य प्रदेश)  
 मण्डी में आवक भाव की जानकारी दिनांक 13/12/17

नाम	उच्च	मं.डल	न्यूनतम	आवक	समर्थन मूल्य
...	2750	2650	1775		3050
...	1840	1600	1485		—
...	705	2555	2200		—
...	...	2465	1870		2450
...	...	...	...		540

Performance of eNAM  
 across the three states

# State-wise comparison of arrivals and eNAM statistics as on August 2017

The current data is for the major commodities highlighted on the eNAM platform.

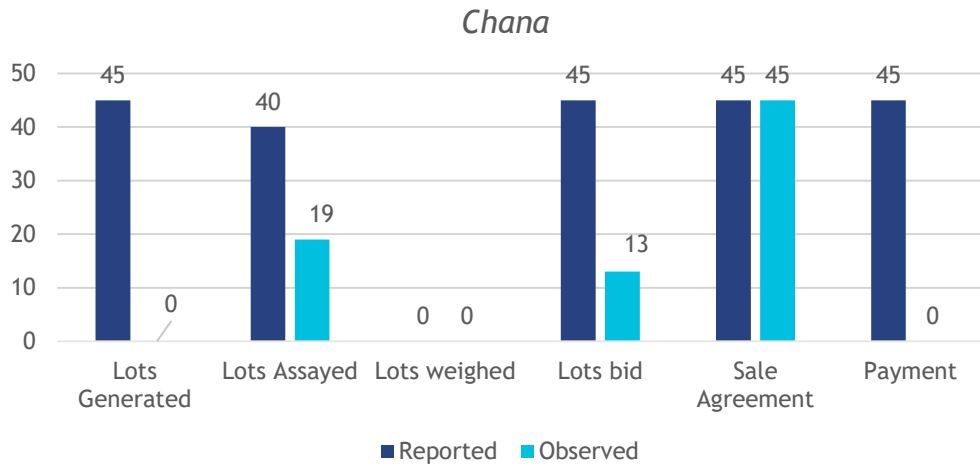


Indicators	Unit	Uttar Pradesh	Haryana	Madhya Pradesh
Total number of APMCs	#	<u>261</u>	<u>150</u>	<u>267</u>
Total number of APMCs integrated with eNAM	#	<u>100</u>	<u>54</u>	<u>58</u>
Percentage of APMCs integrated with eNAM	%	38%	36%	22%

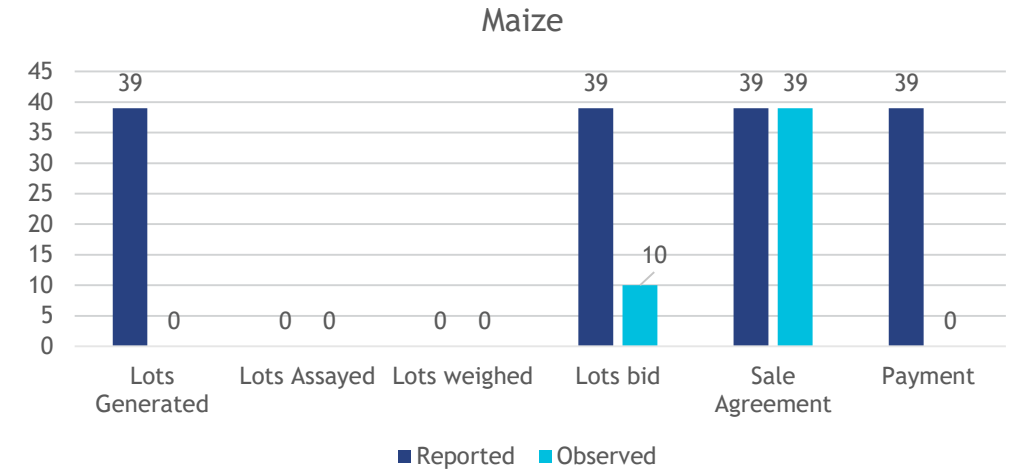
Indicators	Unit	Uttar Pradesh	Haryana	Madhya Pradesh
Total arrival of major commodities# (in Aug 2017)	Tonne	<u>1,034,853</u>	<u>16,799</u>	<u>434,164</u>
Total traded quantity on eNAM (in Aug, 2017)	Tonne	<u>67</u>	<u>58</u>	<u>13</u>
Percentage of trading through eNAM	%	< 0.01%	(< 0.4%)	< 0.01%

# Includes only major commodities as mentioned on eNAM website

# Current status of eNAM transactions for *Chana* and *Maize* - an illustration (1/2)



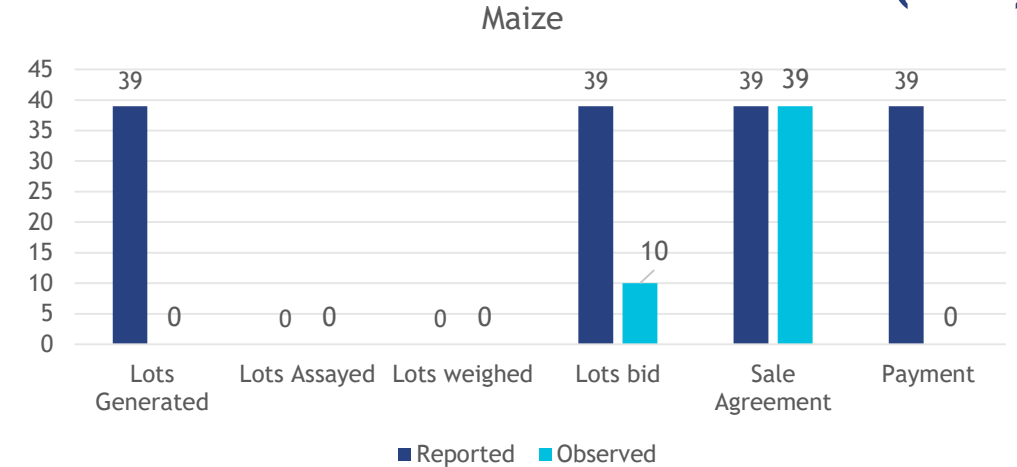
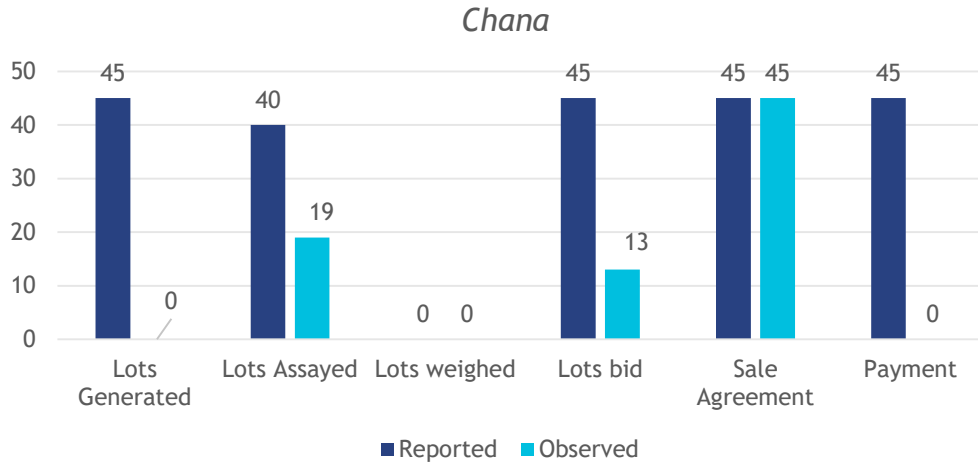
Sehore APMC  
in Madhya  
Pradesh  
during Dec  
4th-9th,  
2017



	Lots Generated	Lots Assayed	Weighing of lots	Lots bid on eNAM	Sale Agreement	Payment
<b>As observed during the research</b>	<ul style="list-style-type: none"> <li>As against 45 and 39 lots reported for <i>chana</i> and <i>maize</i> respectively, no lot generation actually happened during our research.</li> </ul>	<ul style="list-style-type: none"> <li>19 out of 40 lots were assayed for <i>chana</i> and no lots were assayed for <i>maize</i></li> </ul>	<ul style="list-style-type: none"> <li>Weighing of lots was not taking place during the research</li> </ul>	<ul style="list-style-type: none"> <li>Only 13 bids out of 45 took place for <i>chana</i> and 10 out of 39 bids happened for <i>maize</i>.</li> </ul>	<ul style="list-style-type: none"> <li>All the sale agreements were generated and kept on record.</li> </ul>	<ul style="list-style-type: none"> <li>Against 45 lots of <i>chana</i> and 39 lots of <i>maize</i>, no payments were channelized through the eNAM platform.</li> </ul>



# Current status of eNAM transactions for *Chana* and *Maize* - an illustration (2/2)



Sehore APMC in Madhya Pradesh during Dec 4th-9th, 2017

	Lots Generated	Lots Assayed	Weighing of lots	Lots bid on eNAM	Sale Agreement	Payment
Other Observations	<ul style="list-style-type: none"> <li>eNAM staff collected transaction data and lot details from the auction platform and entered onto the eNAM platform</li> </ul>	<ul style="list-style-type: none"> <li>The <i>mandi</i> had a limited capability to assess all the quality parameters of the commodities</li> </ul>	<ul style="list-style-type: none"> <li>The weighing bridge was not connected to the eNAM platform.</li> <li>Actual weighing happened at traders' outlet and then it was reported to the <i>mandi</i> office</li> </ul>	<ul style="list-style-type: none"> <li>Currently, eNAM officials carry tablets to auction platforms and support the traders to place their bids. However, the actual auction does not happen with a group of traders.</li> <li>However, eNAM staff gather details of the manual auction and enter it on eNAM after the completion of manual trading</li> </ul>	<ul style="list-style-type: none"> <li>The actual process is still taking place through receipts issued by the <i>mandi</i> and invoices issued by traders</li> </ul>	<ul style="list-style-type: none"> <li>Currently, traders make payments through Cash+RTGS method, which is reported as payment routed through eNAM</li> </ul>



# Enablers for eNAM and way forward

# Enablers for eNAM

## Awareness



- Public announcement system should be installed in the *mandis*. The *mandi* officials should promote eNAM and provide the details about the scheme. The announcements by *mandi* officials would ensure that the traders and farmers start trusting the scheme.
- To target the farmers, mostly small marginal farmers, who do not visit the *mandi* to sell their commodities, an IVRS platform can be developed to spread more information about eNAM.
- Training and group discussions in the villages by government or *mandi* officials to make the farmers aware of trading on eNAM.

## Positioning



- The potential benefits of eNAM are not clear to the traders and the farmers. The key messages through posters and sessions in the *mandis* should be used as a tool to showcase the value propositions for each of the stakeholders.

## Legal provisions



- The hassles pertaining to the license should be reduced for uniform trading across *mandis*. The existing license of the traders should be upgraded to a unified license that lets them trade across any *mandi* in the country. The fees to upgrade the license should be nominal.

# Creating a prototype *mandi* to facilitate eNAM uptake among all stakeholders

## 1 Selecting smaller *mandis* that have low volume of trade

- Two to three *mandis* in each state to perform intra- and inter-*mandi* trade.
- Smaller *mandis* have lesser resistance from the trader and CA union, thus it is easy to implement new concepts like eNAM.

## 4 Telecast the QA process to gain the trust of farmers and traders

- QA being the most important step in the process, it is important that traders and farmer should have trust in the process.
- To help them move from the traditional system of eye estimation to the new method of lab testing, representatives of farmers and traders should be shown how lab tests happen, through lab visits
- Another method can be, to telecast process of lab testing on screens installed in *mandis*, where farmers and traders can see the process.

## 2 Selecting a commodity that has low arrival

- The commodity chosen should be of higher value to the traders and its trading should be made compulsory on eNAM. For instance, *baatla* (green peas) is a dear commodity to the traders in M.P. The margins that the traders get by selling such commodities across other states is high. Hence, such commodities should be selected.
- Also, the conventional way of trading should be ended because as long as traders will get an option to trade through the conventional method, they will not shift to eNAM.

## 3 Developing incentives for farmers, traders, and *mandi* officials

- Recognizing the farmer or trader with the highest trade volume on eNAM
- Providing farmers and traders with incentives (agri input supply coupons, trophies or a tangible form of rewards)
- Learnings from Digital Transactions post-demonetization can come handy for the government to frame suitable incentive solutions for farmers and traders to transact more on eNAM
- The *mandi* officials should be encouraged to promote eNAM among the stakeholders

## 5 Initial handholding support to traders and CAs

- Approaching younger and tech-savvy traders and CAs initially is a better idea as they easily adopt new technologies.
- Providing hand holding support to such traders and CAs will give them a confidence boost.
- They, in turn, can also help in the uptake of eNAM among fellow traders and CAs.

# Challenges as observed on the field



# A lack of awareness and inadequate infrastructure at *mandis* hampers the lot-generation process

## Key barriers

### Lack of awareness

Farmers have little awareness of the eNAM scheme, its benefits, and the value it offers to them. This leads to a lack of interest in the scheme and discourages farmers to participate in trading through eNAM.

### Inadequate Infrastructure

A lack of adequate infrastructure at the *mandi*, such as proper entry gates, an adequate number of live work stations, weighing bridges connected to eNAM and trained resources at gates, slows down the overall process. It also increases the time taken to generate an individual lot number. During the peak season, this could lead to long queues and discontent among the stakeholders.

### Documentation requirements

Farmers need to share key documents, such as a copy of *Aadhaar* card, and bank details, among others, multiple times, such as during gate entry for lot generation, at the *Mandi* office, and to traders for payments. This duplication of work not only increases the turnaround-time but also causes discomfort to the farmers.

### Absence of a unique identifier

Even for pre-registered farmers, there is no unique identifier. Searching by name or mobile number takes time, which creates hassles and delays. This occurs every time the farmer revisits the *mandi*

# A lack of awareness and inadequate infrastructure at *mandis* hampers the lot-generation process

## Stakeholder's perspective

### What do the farmers say?

- A majority of the farmers are unaware of the eNAM scheme and the intrinsic benefits it offers to them.
- Farmers who are aware are interested in the eNAM lot-generation process. They feel that this process will bring transparency and better price discovery for the commodities. However, they fear that the unavailability of proper infrastructure at the entry will pose a challenge during peak seasons.
- To avoid submission of documents at multiple stages, farmers want a mechanism through which all the information should be captured once, and then shared internally with all the stakeholders.

### What do the *mandi* officials say?

- Currently, lot generation does not take place in real-time. Instead, *mandi* officials gather data at the time of quality assaying or collect it from traders or CAs after manual auctioning and then enter it on the eNAM portal.
- To reduce this complexity, *mandi* officials are interested to integrate the lot-generation process with eNAM software, which will reduce their workload.

# A lack of infrastructure and skilled manpower are key barriers to efficient quality assaying

## Key barriers

### Lack of infrastructure

- The infrastructure for the quality assaying lab in the *mandis* is inadequate.
  - Several *mandis* have **limited space** to accommodate all the equipment.
  - Some *mandis* have **not procured all the equipment\*** needed for assaying.

### Inadequate manpower

- **Shortage of manpower** to conduct quality tests:

For instance,

*Mandi* turnover= appx. 500 lots;

Time for one QA= 10-17 mins;

Number of quality tests possible per day= 30-50

*Hence, the number of personnel required is 10 times more.*

- ***Mandi* officials do not have the skills and expertise** to conduct the quality tests. There are few skilled graders employed to conduct the quality tests. This makes the stakeholders and traders, in particular, question the quality and reliability of the quality test reports.

\*Equipment refers to moisture meter, sieves, oven, test tubes, pipette, chemicals, grinder, weighing machine, etc.



# A lack of infrastructure and skilled manpower are key barriers to efficient quality assaying

## Stakeholder's perspective

### What do the farmers say?

- The quality assaying process of their commodities as a precursor to selling it on eNAM induces **fear of loss of sale prospect**. This arises due to the fact that there is a wide range of quality that different farmers bring to the *mandi*. Thus, the fear of not being able to sell the low-quality commodity refrains them to get it tested in the quality lab.
- **CAs play a major role in a farmer's life**. Farmers do not want to bypass them while selling their produce in the *mandi* because:
  - CAs lend money to the farmers for the production of crops and in emergency situations.
  - CAs support in the sale of any quality of the commodity. If a farmer starts to trade solely on eNAM and gets the payment directly, the CA loses their bargaining power and cannot earn anything more than the prescribed fees.

### What do traders say?

- They **do not trust** the quality tests conducted by *mandi* officials. Traders expect the *mandis* to take accountability for the quality stated. This is because there are chances that at a later stage, the processing plants or mills refuse to accept commodity sold by a trader or a CA based on the quality reports from the *mandi* labs.
- The **turnaround time** for a quality test in a lab is **much greater** than the traditional process currently followed. Given the high volumes of transactions, this makes the process unacceptable to traders.

# At present, quality assaying in a lab takes approximately 20 times more time than the traditional method

## Conventional method

Quality parameters	Process followed
Depends on the quality of commodity and its end use or utility	<ul style="list-style-type: none"> <li>• Estimation by observation</li> <li>• Nibbling</li> <li>• Grinding</li> </ul>
<b>Overall time taken</b>	<b>30-40 seconds</b>

## Semi-automated method (Lab method–Currently followed)

Common quality parameters*	Time taken to complete the process
Moisture (% by wt)	2 - 3 min
Foreign matter (% by wt)	1 - 2 min
Other edible grains (% by wt)	1 - 2 min
Damaged grains (% by wt)	1 - 2 min
Weevil-damaged grains (% by count)	3 - 4 min
Uniformity	1 - 2 min
Lustre	1 - 2 min
<b>Overall time taken</b>	<b>10 - 17 min</b>
Available only with fully automated machines and not with the currently deployed ones	

## Fully automated method

Quality parameters	Process followed
Assess key quality parameters	The commodity is placed in the machine and the key quality parameters are tested simultaneously
<b>Overall time taken</b>	<b>40-60 seconds</b>
Based on secondary research and inputs from <i>mandi</i> officials	

- No skilled manpower required
- No monetary cost involved
- Takes lesser time. In fact, the overall process of assessment to auctioning gets over in 30-40 sec
- Major challenge: The quality reports would vary from one trader to another for the same commodity

- A skilled grader is required
- Different machines for testing each quality parameter are required
- Major challenge: Each mandi has 5-10 notified commodities arriving under eNAM. A large number of machines would be required to test the quality parameters for each commodity. Hence, more expertise is required.

- Human intervention is reduced
- One machine required for all commodities of the same category.
- It will help bring greater value to the process and in building trust among the stakeholders.
- Major challenge: The cost of buying the machine could be as high as INR 1 to 1.5 million, which will be a huge investment

\*These parameters pertain to *arhar, moong, masoor, urad, channa*, and certain parameters used to check the quality of other grains

# APMCs have limited capacity to carry out quality assaying for all the commodities

Illustration of time required to conduct QA for paddy in an “A grade” *mandi*\*

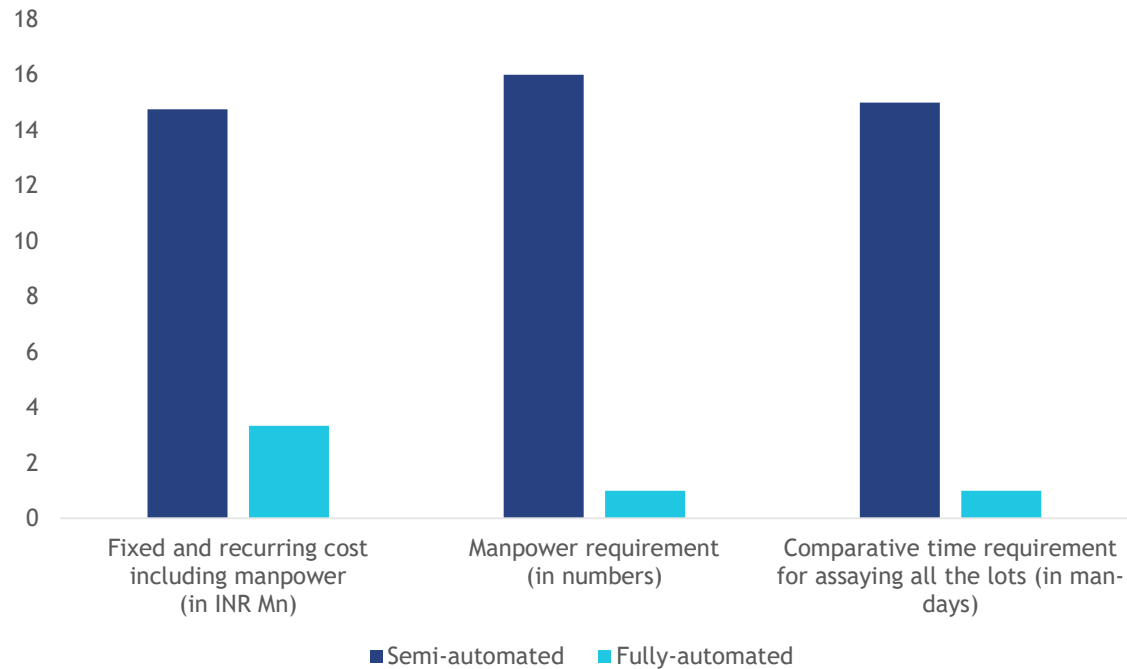
Description	Unit	Value
Total arrivals	lots	400 - 800
Time required to conduct QA for one lot	min	10 - 17
Total time required to conduct QA	hrs.	67 - 134
Number of <i>mandi</i> officials who conduct QA	number	1
Working hours	hrs.	8
Maximum lots that can be assayed in a day	number	50

Currently, *mandis* have limited capacity and can only handle Quality Assaying of 6% - 15% of total arrivals during the peak season.

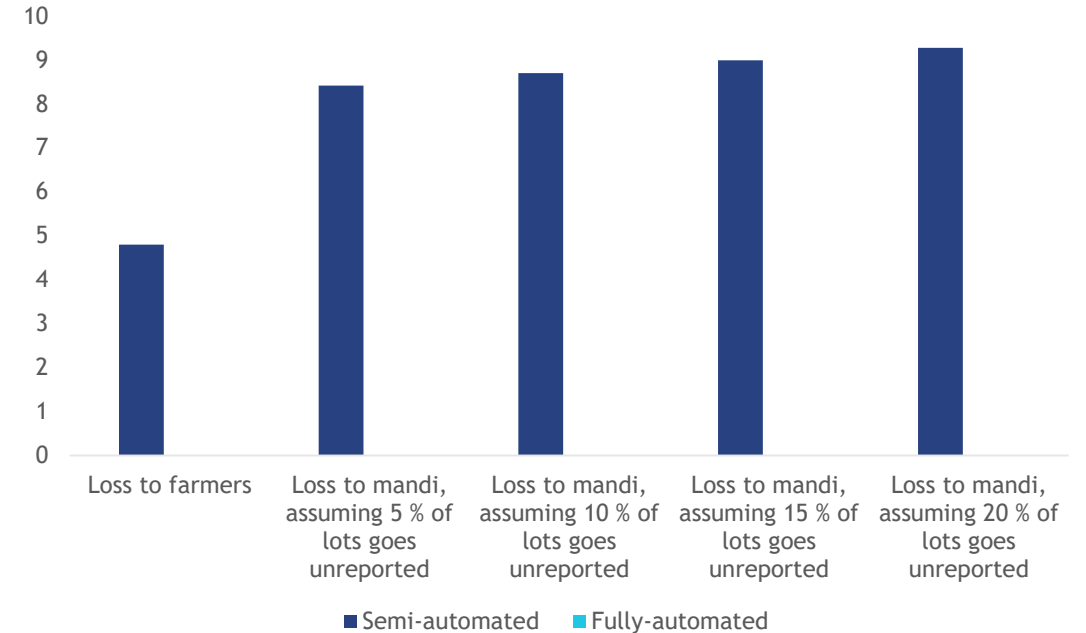
\* A *mandi* is categorized in three categories(A, B and C) based on the revenue collected from the *mandi*

# Installing fully-automated machine can save significant amount of resources and will increase transparency

Probable direct savings on resources over a period of five years to assay 500 lots/day



Probable indirect savings (lost opportunity cost in INR Mn) to stakeholders (farmers & mandi) over a period of five years



- A fully automated machine in each *mandi* can do 15 times more quality assaying than semi-automated set-up and thus can increase transparency.
- A semi-automated set-up in the lab would require 16 persons to finish Q.A.s vis-à-vis one person in case of fully-automated machine.
- A net saving of INR 6038 Mn can be achieved for 585 *mandis* on eNAM on annual basis.

# Infrastructure issues, process issues, and lack of trust stall e-auctions of commodities in the *mandis*

## Key barriers

### Longer TAT

- Poor internet connectivity across the *mandi* and absence of wi-fi routers at e-auction platforms and halls limit the uptake of e-auctioning.
- e-auction is a long process compared to the manual auctioning process currently in practice. The **glitches in the eNAM software, such as slow responsiveness, poor server connectivity, among other factors**, increase the hassle factor.
- Traders **need handholding** to carry out the e-auction process, which increases the overall bidding time.

### Lack of trust

- While auctioning on eNAM, the traders do not trust the portal as it does not feature an image of the commodity. Also, they do not rely on the quality report made available by the *mandi* officials on the e-auction platform.
- The traders do not know whom to rely on **the logistics and transportation** of their purchase when trading across *mandis*.

# Infrastructure issues, process issues, and lack of trust stall e-auctions of commodities in the *mandis*

## Stakeholder's perspective

### What do the farmers say?

- The behavioral change towards the adoption of eNAM from conventional methods for the trading of commodities is difficult.
- Most of the farmers are not tech-savvy. Hence, it becomes inconvenient and uncomfortable for them to trade independently of CAs. In the *mandis* where the traders and farmers do not have a direct transaction, the CAs take the **responsibility of selling the farmers' produce** on the same day—irrespective of the quality. This is a great value addition and risk mitigation support from CAs to farmers.

### What do traders say?

- The high opportunity cost involved if a trader loses the bid while auctioning on eNAM at the last moment to a higher bid makes them insecure. The traders sell the commodity purchased in the *mandis* to mills or processing plants subsequently. The orders for this secondary sale are placed with the traders in advance. In case they lose the bid over a commodity, they incur high business losses and lose trust in the market.
- The traders do not rely on any other quality testing method unless it involves them and they check the quality by eye-estimation, nibbling, etc.

# Need for instant cash and lack of trust on online payment methods hampers the payment process

## Key barriers

### Farmers' preference for cash

- Farmers **prefer instant cash** payments as it suits their cyclic expenditure requirements.
- **Online payments are expected to take (T+1) day** approximately. However, sometimes it can take up to 15 days to reflect in farmers' accounts.

### Software glitches

- Sometimes, eNAM **does not show payment options** through net banking, debit card, or credit card. This is due to glitches in the eNAM software or inadequate bandwidth. The system directly shows a blank sales invoice. This acts as a bad use-case and discourages trader to perform online payments.

### Lack of trust

- Traders **lack trust in technology** and in online payment systems. One of the primary reason for this is their **lack of awareness and no training** in performing online payments.

### Multiple accounts of farmers

- Farmers have **multiple bank accounts** and depending upon their requirements they **demand money in different accounts**, which creates confusions and errors leading to delay in payments.

# Need for instant cash and lack of trust on online payment methods hampers the payment process

## Stakeholder's perspective

### What do the farmers say?

- Farmers need cash payments because they require immediate money to settle their expenses like hiring fee for the trolley, payment to *tulawatis*\*, etc. and purchasing of agriculture inputs for the next cropping season.
- Farmers are scared to get direct payments in their accounts. Many farmers have taken personal loans, vehicle loans, KCC loans, etc. from different banks and have not repaid them. They fear that if the money is directly transferred to their accounts, banks will deduct the overdue loan amounts. In the past, the PMFBY premium was deducted from their accounts, without their consent.

### What do traders say?

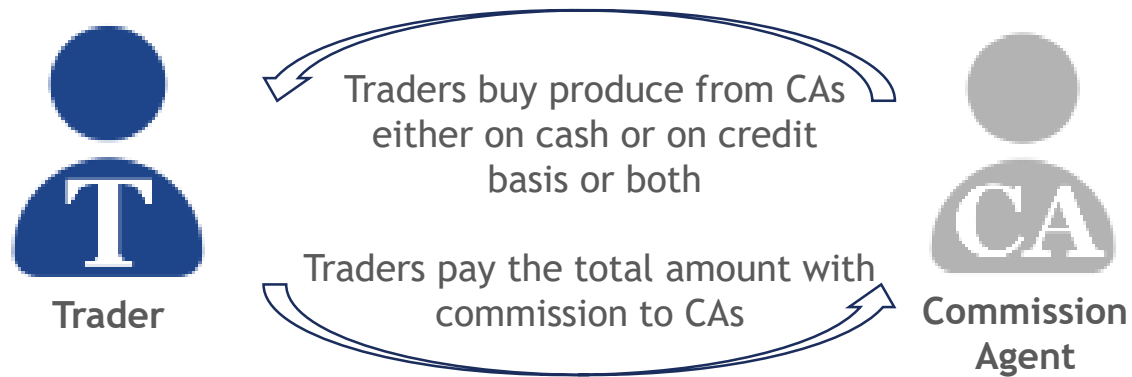
- Traders believe that with the implementation of eNAM, they might face **working capital** issues. This might hamper their trade.
- Farmers ask for instant cash payments from traders and CAs, which is not possible on the eNAM platform.
- Farmers take short-term debts from CAs. CAs fear that with the implementation of eNAM, **farmers might not return the money they have borrowed** as they will be receiving money directly in their bank accounts.
- Traders and CAs fear that online trading will bring in the transparency and there will be a digital trail of their money. This will bring them under the tax bracket.

\*Licensed person who weighs commodity at the *mandi* against a fee

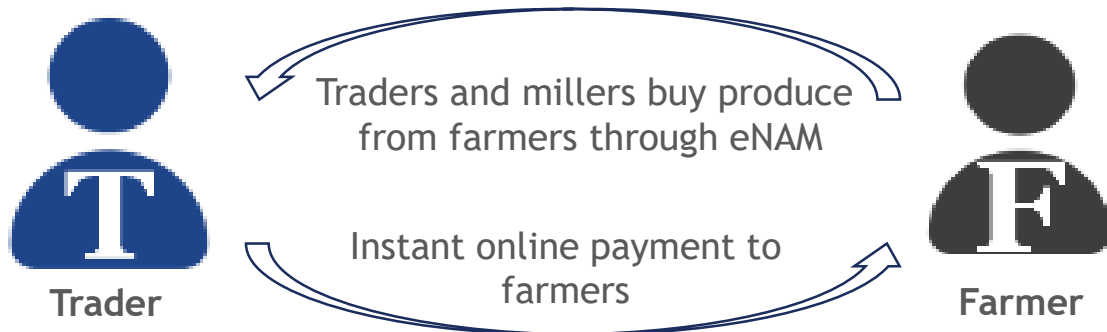


# The importance of commission agents as a risk underwriter and logistics and credit provider

## Manual system of trading



## eNAM process



- In the current process, traders get an opportunity to procure and trade in larger volumes than their actual capital capacity.
- **Commission agents act as a risk bearer** and pay farmers on behalf of traders. Commission agents later recover this payment money from traders.
- This working capital support is provided for five days to three months, for which traders pay 2% - 5% commission to commission agents

The important role played by CA:

- Risk underwriting (quality assurance in procurement and during transportation)
- Credit to farmers
- Help in working capital to traders

**Impact:**

- The buying capacity of traders is augmented
- Distress selling by farmers

A large, dense crowd of people is gathered under a metal structure, possibly a market or festival. The crowd is diverse in age and appearance, with many men in the foreground. The background shows a building with a sign in Hindi. The scene is brightly lit, suggesting daytime.

# The value proposition for stakeholders

# The value proposition for farmers



## Transparency of pricing

eNAM will bring transparency in pricing, as the price can be recorded for every trade and can be accessed for analysis and audit, compared to the current practice where it is recorded manually and has a limited digital trail.



## Increase in bargaining power

eNAM will attract more buyers eventually and this will increase the bargaining power of farmers



## Reduction in fraud and exploitation

Transparency in the entire trading will reduce instances of fraud and the exploitation of farmers



## Quality-based trading

eNAM will lead to a harmonization of quality and will encourage farmers to bring better quality produce to the *mandi*



## Better price realization

eNAM will lead to better price realization for farmers, linked to the quality of produce and market-determined prices, as compared to what local traders or commission agents force them to sell at.

# Value proposition for commission agents and traders



## Access to a larger market

eNAM enables the commission agents and traders to access a larger market, giving them a chance to increase their business.



## Ease of doing trade

eNAM enables CAs and traders to work from the comfort of their shops and offices and help them save their time and resources.



## Ease in conducting the bidding process

eNAM enables traders to bid for the entire lot in one go, as opposed to the traditional process, where they have to bid one by one for every lot



## Ease of payment

eNAM enables traders to settle their account with farmers, CAs, and *mandi* officials in one go and reduces paperwork

# Value proposition for *mandi* officials



## Reduction in workload and paperwork

Automation of *mandi* processes eventually reduces the amount of workload and paperwork



## Ease of collection of revenue

Automated revenue collection process in eNAM helps increase the collection of revenue significantly and make it transparent.



## Access to data, information, and reports

eNAM enables APMCs to do the planning and other activities based on the data, information, and reports with ease



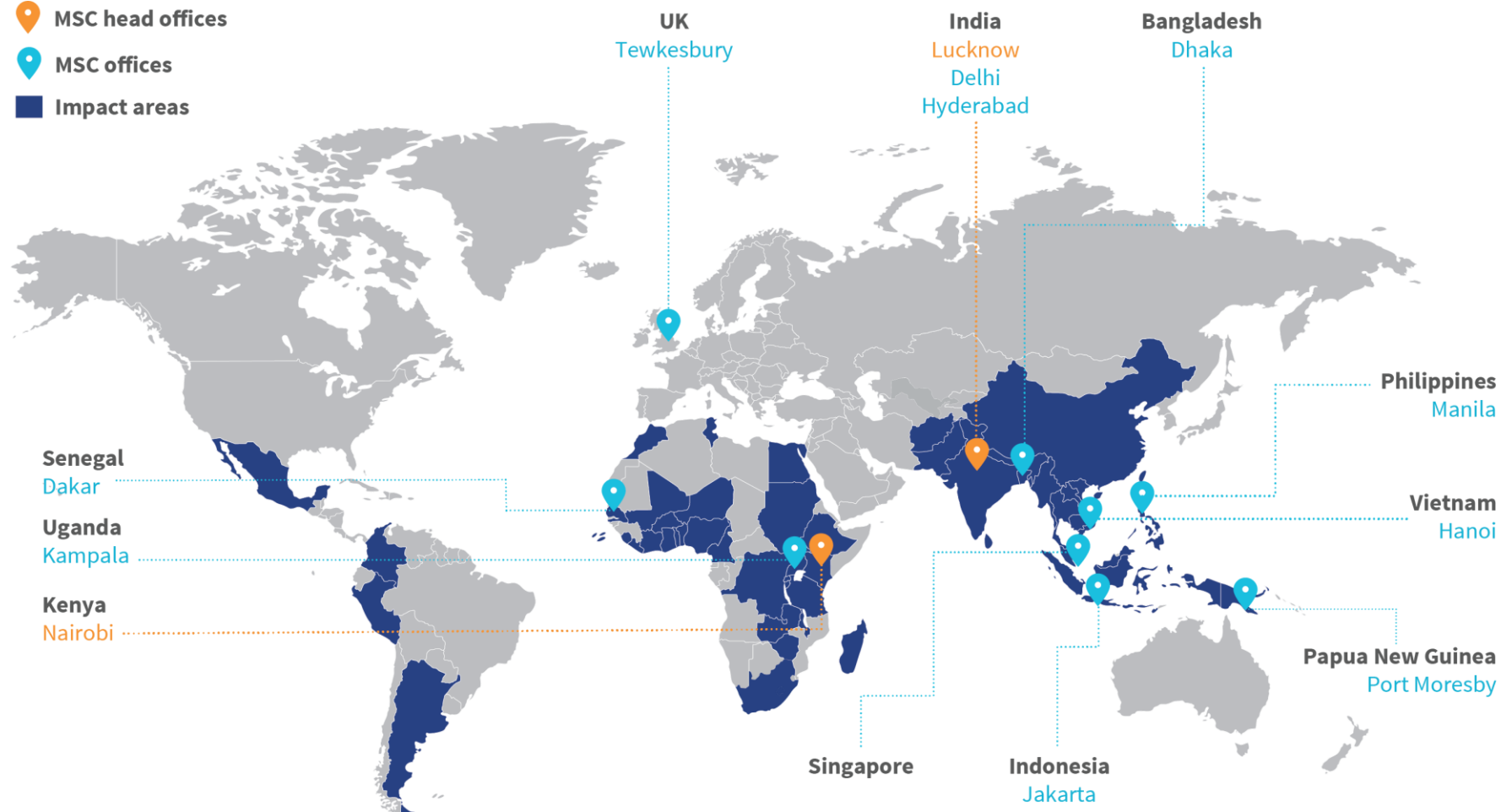
Annexure



# Abbreviations

Abbreviations	Expanded form
APMC	Agriculture Produce Marketing Committee
CA	Commission agents
CSC	Common Service Centre
DBT	Direct Benefit Transfer
eNAM	Electronic National Agriculture Market
IVRS	Interactive Voice Response System
H.R.	Haryana
KYC	Know Your Customer
QA	Quality assaying
TAT	Turnaround time
KCC	Kisan Credit Card
M.P.	Madhya Pradesh
PACS	Primary Agriculture Cooperative Society
PMFBY	Pradhan Mantri Fasal Bima Yojna
U.P.	Uttar Pradesh

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Contact us at [info@microsave.net](mailto:info@microsave.net)

### Asia head office

28/35, Ground Floor, Princeton Business Park,  
16 Ashok Marg, Lucknow, Uttar Pradesh, India 226001  
Tel: +91-522-228-8783 | Fax: +91-522-406-3773 | Email: [manoj@microsave.net](mailto:manoj@microsave.net)

### Africa head office

Shelter Afrique House, Mamlaka Road,  
P.O. Box 76436, Yaya 00508, Nairobi, Kenya  
Tel: +25-420-272-4801 | Fax: +25-420-272-0133 | Email: [anup@microsave.net](mailto:anup@microsave.net)



