

# **Azadpur Mandi Survey Report**

-Understanding Supply Chain for Commodities

**Kapil Thakkar (2014MCS2124)**

**Pratibha Waghlikar (2014MCS2129)**

**Reshma Kumari (2014MCS2134)**

## Table of Contents

|   |           |
|---|-----------|
| Introduction .....                                | 3         |
| Azadpur Mandi Details.....                        | 3         |
| Infrastructure.....                               | 3         |
| Understanding Ecosystem at Mandi .....            | 5         |
| Survey.....                                       | 6         |
| Finding from Commission Agent.....                | 6         |
| Interaction with Vegetable Commission Agent ..... | 6         |
| Interaction with Potato Commission Agent.....     | 7         |
| Interaction with Apple Commission Agent .....     | 7         |
| Finding from APMC officials.....                  | 8         |
| Findings from Farmers .....                       | 8         |
| <b>List of Figures.....</b>                       | <b>18</b> |
| Appendix A: Questionnaire to farmers .....        | 19        |

## Introduction

Agricultural produce market committee (APMC) was established to ensure that intermediaries (and money lenders) do not compel farmers to sell their produce at the farm gate extremely low price so that farmers are not exploited. All food produce should first be brought to the market yard and then be sold through auction.

A State is geographically divided and Market (Mandis) are established at different places within the states. Farmers have to sell their produce through the auction in mandi. To operate in Mandi, a trader has to get license. APMC is regulated by state government.

In order to understand how farmers get price information of various commodities at various Mandis. How farmer decide at which Mandi he should sell his produce to gain the maximum profit, as different Mandis present in the locality of farmer may be offering different prices for commodities. We were also interested in understanding the functionality of the Mandi, i.e. how various players at mandi impact supply chain.

## Azadpur Mandi Details

Azadpur mandi is Asia's largest wholesale market for fruits and vegetables. "Azadpur mandi never sleeps. Auctions and transactions are done even at night" says Balbir Singh a commission agent at mandi. The transactions for vegetables are generally done at night for vegetables harvested in evening and in afternoon for morning harvested vegetables. While fruit transactions are more in morning with their sorting and grading preceding.

## Infrastructure

In order to operate in mandi, every commission agent needs to own a shop at mandi and have a licence number. The owner of the big shop gets 4 licenses per shop while owner of the small shop gets 2 licenses per shop. In order to enter premises of APMC mandi, every vehicle needs to make a gate pass which includes following details:

- Date
- Time
- Vehicle Number
- Builty Number (This states the commodity, origin of the commodity(state) and may be amount)
- License Number of the commission agent
- Amount of produce

On issue of gate pass, an alert message is sent to the commission agent on registered mobile number containing all details. The gate pass costs 1% of the sale value of the transaction. Hence, APMC collects funds from commission agents for every transaction. In year 2012, Azadpur mandi has raised Rs 67 crore but still the conditions of basic amenities are in poor conditions.

Figure 2 taken from the entrance of Azadpur mandi's shows different facilities such as drinking water, kisan bhawan, cold storages, telephone booths etc. are provided at mandi. All the cold storages are private, but licenses are given to them to operate in Mandi.



Figure 1 Facilities at Mandi

Table 1 Azadpur Mandi Statistics

|    |   |              |
|----|---|--------------|
| 1. | Area of New Subzi Mandi, Azadpur            | 43.65 Acres  |
| 2. | Area of New Fruit Market, Saria Pipal Thala | 29,179 Acres |
| 3. | Area of Cement Godown                       | 3.5 Acres    |
| 4. | No. of Big Shops in NSM                     | 438          |
| 5. | No. of Small Shops in NSM                   | 796          |
| 6. | Size of Big Shops                           | 12'x53'      |
| 7. | Size of Small Shops                         | 10'x18'      |
| 8. | No. of Blocks in NSM, Azadpur               | 4            |
| 9. | No. of Covered Auction Platform in NSM      | 4            |
|    | (i) A-Block Covered Shed                    | 3272 Sq.Mtr  |
|    | (ii) C-Block Covered Shed                   | 3272 Sq.Mtr  |
|    | (iii) Potato & Onion Shed                   | 5241 Sq.Mtr  |
|    | (iv) Grower Shed                            | 2444 Sq.Mtr  |

## Understanding Ecosystem at Mandi

Mandi helps farmers to sell their produce at better price by providing them a platform where they can sell their produce to buyers by open cry auctions. Different stakeholders involved are:

- **Farmers**- They are the producers of commodity and they bring their produce to commission agent in mandi who helps them in selling their produce.

For marginal farmers, mandi has a separate market place where they can sell their produce directly to customers. In order to sell in these places, farmers need to give commission to shop owners which varies from 5-6% of sell.

- **Buyers**- Buyers such as local vendors etc come to purchase commodities at mandi.
- **Commission agent**- They act as intermediaries between farmers and buyers. Farmers bring their produce to commission agents who auction it by calling out prices quoted by potential buyers around them.

After an auction, a bill is prepared to calculate the payment due to farmer. If the deal goes through, the farmer pays 6% of the final rate to the commission agent which includes 1% of gate pass charge and 5% of commission. The commission charge varies from 3% to 7%. These transactions are usually maintained over books in unorganised fashion.

- **APMC**- It is the regulatory committee body at mandi. APMC staff monitors the auctions in each shed and notes the final price for each commodity. It then lists the day's minimum price, maximum price and model rate for every commodity. This list is then uploaded on their website and also this information is given to AGMARKNET.

Although APMC office remains closed every Sunday, mandi functions like any other day. Transactions happen, only data is not collected for that day. Hence, we don't even find the data available for Sundays on AGMARKNET.

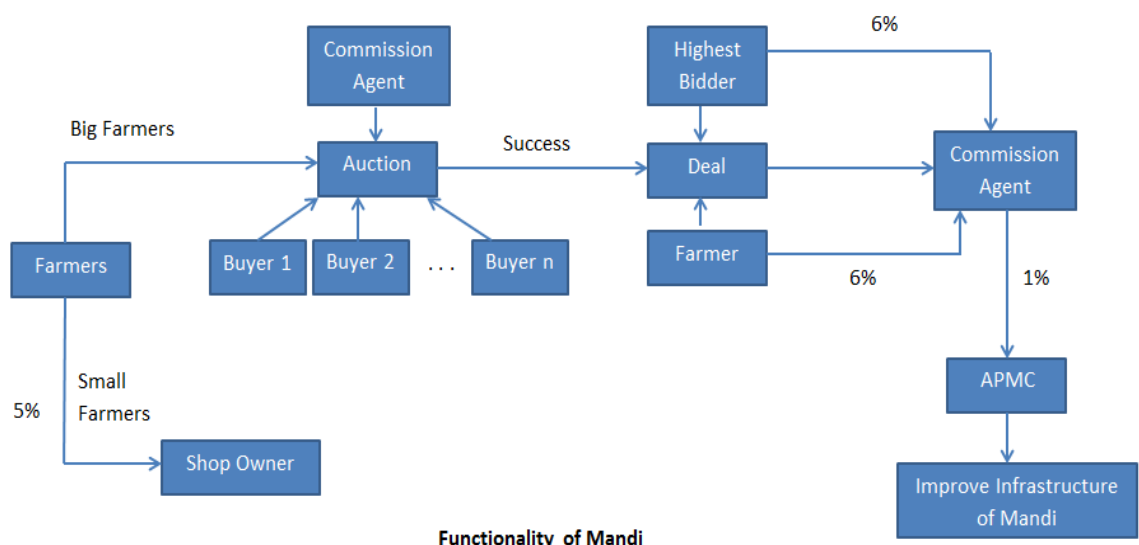


Figure 2 Functionality of Mandi

## Survey

We conducted a survey in Aazadpur mandi to understand following:

- Existing source of price discovery for farmers. How farmers know the prices offered for various commodities in different nearby mandis?
- What are several factors that impact the decision of visiting a particular mandi by a farmer?
- Roles and impact of different stakeholders in mandi ecosystem.
- Technology penetration in agriculture sector

We interviewed 2 Vegetable Commission agents and 1 Fruit commission agent also acting as wholesalers and 12 farmers, out of which 10 were of vegetables and 2 were of fruits. Some of these farmers also grew commodities like wheat and rice.

### Finding from Commission Agent

We interviewed 3 commission agents. One was dealing in vegetables like Cabbage, gourd, etc., one in potato and one in Apple. Note that trader don't trade in all commodities. Instead every trader only deals in some specific commodity. However, the domain of commodity can change based on season. Like apple trader trades in apple for 6-8 months a year and rest of months he switches to mango.

"We try to bag the best deal for farmer so that they transact again with us in future otherwise they'll go to other commission agent" says vegetable Commission agent. Although it appears from the statement that because of more competition in mandi, farmers have good chance of bargaining and negotiating for his produce but during survey we noticed hardly any farmer take advantage of this. "We blindly trust him (refers to commission agent) for price information. We don't even contact anyone else for price information" say farmers.

Every commission agent in mandi maintains records of transactions in a book. It contains Date, name of the farmer, the commodity he brought, amount (in Kg), the price paid to him, commission charged, labour charge, final cash paid to him. Also, along with this details of wholesaler/buyer are recorded to whom commodity is sold. Note that farmers are paid in cash immediately as farmers need immediate funds, but wholesalers can pay them after 2-3 months. Interest is taken from wholesalers not paying immediately. Commission agent even give loans/advance to farmers.

### Interaction with Vegetable Commission Agent

When he was asked, why farmers do not sell their produce to companies like Safal (its outlet was also present in Mandi), he replied that usually farmers usually get more price in Mandi than from these companies. Also, such companies' sets high standards for the quality of commodities also include need

to sort and grade commodities by farmers, which these traders don't demand. So they prefer to sell their produce in Mandi rather than to these companies.

Rates of vegetables are very volatile. It may change by 150-200 Rs. Per day depending on the arrival of commodity. If let's say 10 trucks arrive of the same commodity at the same time then prices may fall down.

This agent had very long experience of 30-35 years. His father was also in the same business. So he did not face any difficulties in getting license. According to him, there was no licensing system previously in the old Mandi, it was brought into system when new Mandi was established. Now it is tough to get license as there are limited number of shops and without shop one cannot get license. Majority of the traders has this as a family business. So, new entry is hard. But if any shop is available for sale, then it will cost up to 1 crore (big shop).

### Interaction with Potato Commission Agent

This commission agent had 35 years of experience. Deals in potato usually occur from 7 am to 5 pm. New stock of potato comes from Punjab starting from month of November. From 15<sup>th</sup> September onwards, stock also comes from Uttar Pradesh. This stock comes till March. From April onwards stock continues coming from UP. It also comes from the other states like Karnataka, West Bengal, etc. via road transport or via rail transport. According to him, he charges 7% commission to the farmers who asks for advance and 3-4% who doesn't ask for the advance. But some of the farmers during interview said that they do not pay commission, so it seems that commission for potato depends on the commission agent and may be variable.

Some farmers keep potatoes in the cold storage, but at this time (April 2015) cold storages are full. As last year all the farmers got very good price for potato due to low production (1200-1500 Rs. Per quintal), this year many farmers grew potato in large amount in the expectation of high returns, but due to large production prices dropped drastically to 150-200 Rs. Per quintal this year. So, currently potato farmers are not even able to recover money invested in bringing potatoes to mandi.

### Interaction with Apple Commission Agent

This commission agent was B. Comm. Graduate and had experience of 9 years. This was his family business. In the Delhi market, Apple comes from Kashmir, Kullu and Shimla. They charge 6-12% commission to the farmers. According to him, Apple farmers are more educated than any other farmers. So they enquire about prices at various mandis before visiting. They also use storage facility to store Apples. Apples can be stored up to 6-7 months. So depending on the price over the year, they can sell it whenever they are getting good prices. During the festivals, rate of Apple fluctuates up to 5 Rs. Per Kg. When he was asked why farmers come here to sell produce instead of going to firms like hpmc, he replied that farmers get better price here than the hpmc. Yes, there are fluctuations in the prices in the Mandi, but when they are compared with the price offered by the hpmc, average price comes out to be higher in Mandi than hpmc.

He does not deal in apple for complete year. He switches to the Mango, in the season of mango when apple supply is down. He also supplies apple in other parts of the country. When he was asked about what kind of transport he prefers then he replied with Road Transport despite of lower transportation charges in case of trains. Because in order to use train facility, he needs to book whole compartment and often he does not have this much to transport. Also, huge paper work is required if they plan to collaborate and send goods. So they prefer to transport it via road than train.

### Finding from APMC officials

“Azadpur is not farmer’s mandi and mending laws for farmers will not help here” says an APMC official. Similar comments were received by other agents in mandi. Most of them said that the farmers don’t come directly to sell their produce in Azadpur mandi instead most of the transactions are performed by small traders selling to large traders or wholesalers.

During survey also, we found that either we met marginal farmers (selling small quantity of produce directly to customers if produced in surplus from family usage need) with landholding of 1.7 Acers or we found rich farmers with average landholding of 13.8 Acers. Some of the farmers were also working as commission agent at mandi.

### Findings from Farmers

We interviewed total of 12 farmers, out of which were 10 vegetable farmers and 2 were fruit. Note that 9 farmers out of 12, also grew crops like Wheat, Chana, etc. for their food purpose. Not all of them were able to sell this type of crop and also production was not much. Vegetables and Fruits were their primary crops. The questionnaire was prepared to interview farmers which can be found in Appendix A.

- Age

Average age of the farmers interviewed was 40 years. All of them had farming as a family business. Age distribution of farmers’ interviewed is as follows:



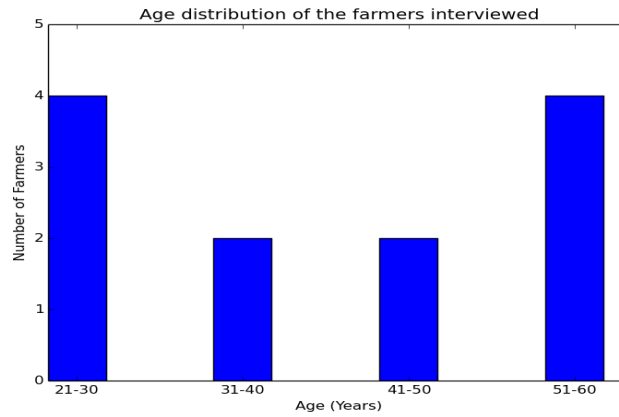


Figure 3 Age Distribution of the Farmers Interviewed

- Educational Qualification

Out of 12 farmers we interviewed, 2 farmers had no education qualification, 6 had education till 10<sup>th</sup> and rest in between. So, the literacy level was approx.. 80% which is a good sign.

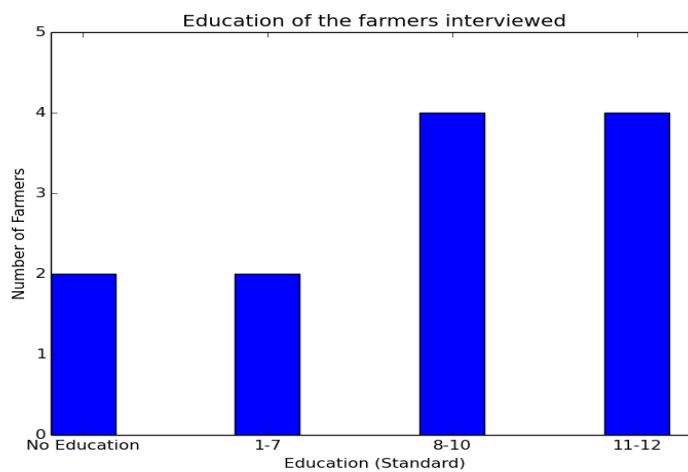


Figure 4 Education Details of the farmers Interviewed

- Vehicle Owned

Three farmers had no vehicles. Seven farmers had bike (motor-cycle) and one had tempo whereas all the commission agents had four wheelers.

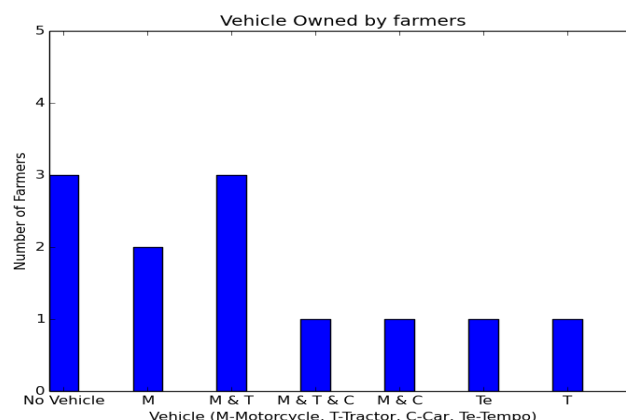


Figure 5 Type of Vehicle owned by Farmers

- Mobile Owned

Eight farmers owned mobile phones, 4 farmers were not using any type of mobile. But out of that four, one was having smartphone at home, but that was not used for the purpose of getting price information.

- a. Type of Mobile Owned

Out of eight farmers only one was using Android smartphone. So, we observed a good rate of penetration for usage of mobile phone among farmers, but majority (90%) of them were using basic mobile phones.

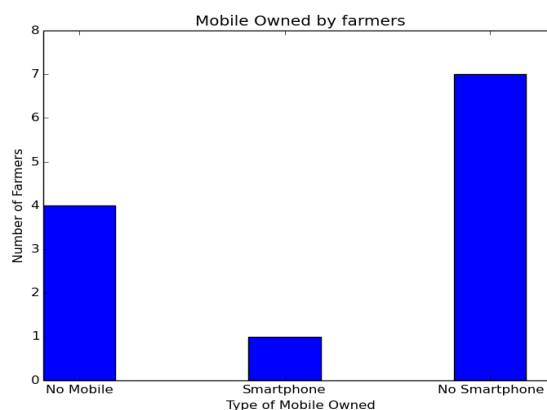


Figure 6 Type of Mobile Owned By Farmers

- Landholding

Average landholding of farmers was 13.8 Acres which clearly justifies the point stated by APMC official that small scale farmers don't actually reach mandi for selling their commodities. Distribution of landholding is as follows:

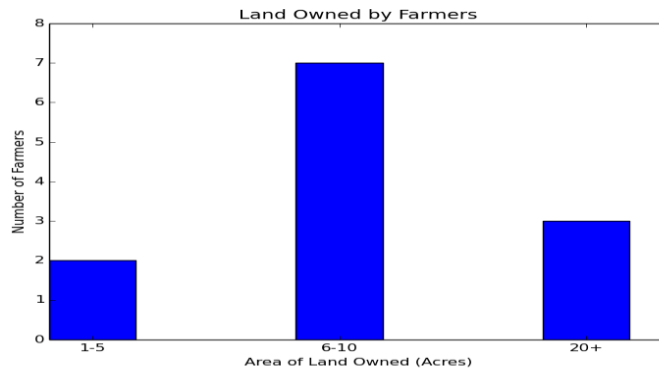


Figure 7 Area of land owned by Farmers

- Average Annual Income

Only one farmer disclosed his profit as 60-70K per year (apart from expenditure). The response of rest was that it depends on the market and the produce. If any natural calamities like unseasonal rainfall occurs then produce will be less, and so it will affect the income. Also, it depends on the market rates, if the produce is high then price will fall down, and they do not get the proper price, and vice-versa.

But observing the statistics of vehicles and mobile phones owned by farmers, almost 50% of farmers had either no vehicle or only motor cycle and no smart phone or basic phones which suggest farmers not having much income.

- Source of Price Information

Many of the farmers rely on the input from the commission agents only or just visit Mandi and sell their produce at whatever prices they are getting. If the prices of commodities are known to farmers in advance, they will get good price. There was one farmer who came from Madhya Pradesh to Delhi, because prices offered at Azadpur mandi was better than other mandi (Kanpur/Jaipur) he enquired. Although, the information was obtained by calling commission agents of these mandis but it helped him seek better price for his produce. So if farmer see the prices, before going to the Mandi, then it will really help him. The point to note here is that most of the farmers are still dependent on commission agents for price discovery.

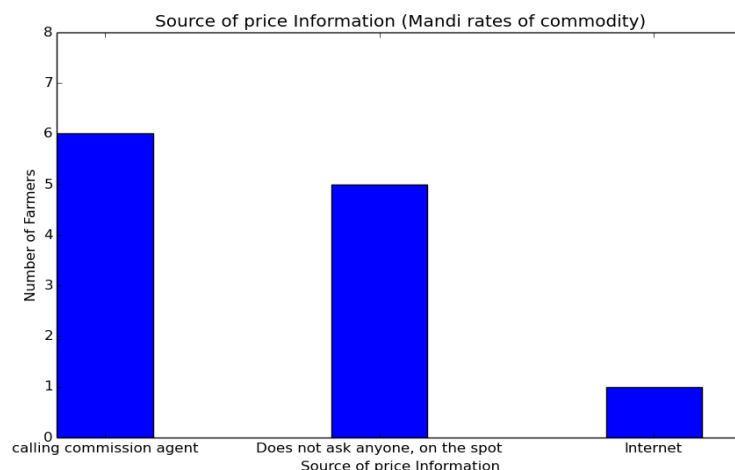


Figure 8 Source of Price Information

- Knowledge About Kisan Seva Kendra

Just two out of twelve farmers had knowledge about Kisan Seva Kendra. Also, one of them was unsatisfied with the answers provided by the Kisan Seva Kendra. His answer was that whatever advice was provided at Kisan Seva Kendra, was not feasible. The input given by experts like what fertilisers to use, what pesticides to use, were not available in their locality.

When we told about kisan seva kendra to those who were unaware of it, they voluntarily asked for Kisan seva kendra number and appreciated the concept. We even gave numbers to 3 farmers.

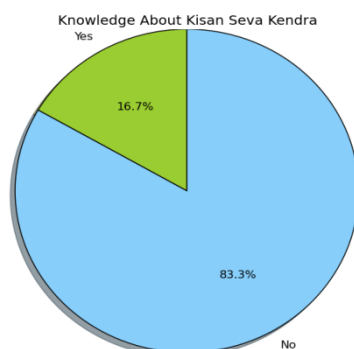


Figure 9 How many farmers know about Kisan Seva Kendra?

- Frequency of Visit to Mandi

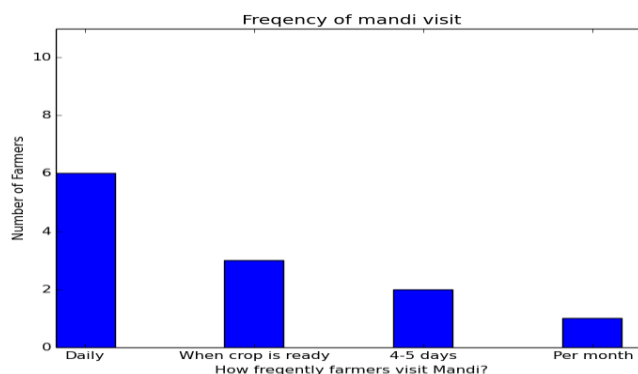


Figure 10 How Frequently Farmers Visit Mandi

- Commission Paid to Commission agents

During survey we found farmers need to pay commission of approx.. 6% to commission agents which includes gate pass charges and other labour charges. According to a notice dated 24/01/2014 released by APMC, 6% commission shall be charged from buyers and not from framers/sellers. But during survey which was conducted after one year of release of notice, it was prevalent that farmers were not aware of this and they continued giving commission to agents and some agents even enjoyed getting commission from seller as well as buyer. It clearly questions functionality of APMC whether they have taken proper measures to spread this notice or not.

The notice is even flashed on the main page of APMC Azadpur website (<http://www.apmcazadpurdelhi.com/Advertisement.pdf>). But seeing the level of awareness among farmers about notice justifies that nobody checks the website (which is clear through statistics on usage of internet in one of the following point). Also, the notice and website are displaying information in english language which could be considered another barrier for lack of awareness (Seeing the statistics of education level of farmers).

- Travel time to reach Mandi

Vegetable farmers on average travelled 3 hours to reach mandi whereas fruit farmers took 3 to 4 days to reach mandi. Vegetable being highly perishable commodity cannot be retained for long whereas fruits can.

- Awareness about retail prices

Only 25% of farmers were aware of retail prices of commodities they sell and take advantage by selling directly to customers in Sunday market.

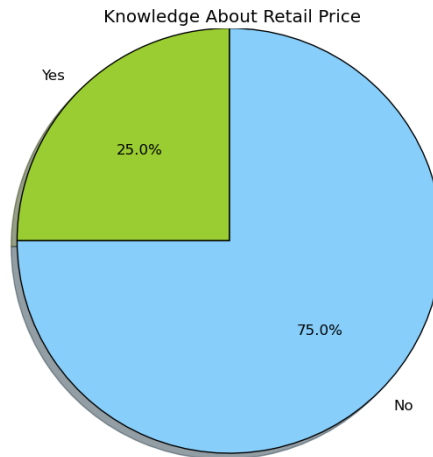


Figure 11 How many farmers know about Retail Price?

- Knowledge about MSP (Minimum Support Price)  
83% of farmers were aware of MSP offered by government to procure commodities from farmers. One argument for not knowing about MSP may be that, since the farmers interviewed were all fruits and vegetable farmers, and MSP is not defined for the perishable commodities.

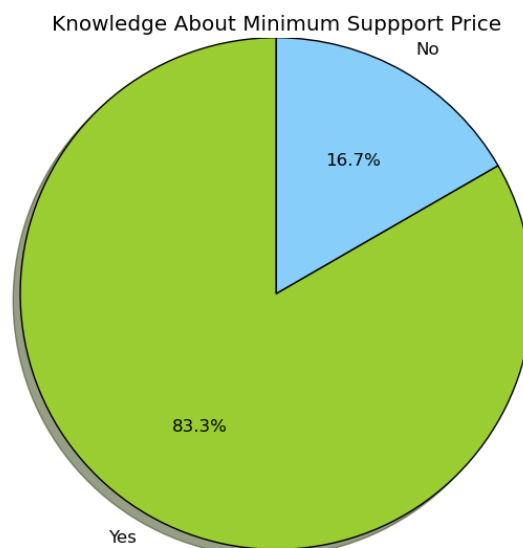


Figure 12 How many farmers know about MSP?

- Knowledge about Contract Farming  
33% of farmers were aware of contract farming and no one tried it because of delayed payments from companies and they were getting better prices at mandi than from these companies (as mentioned by farmers).

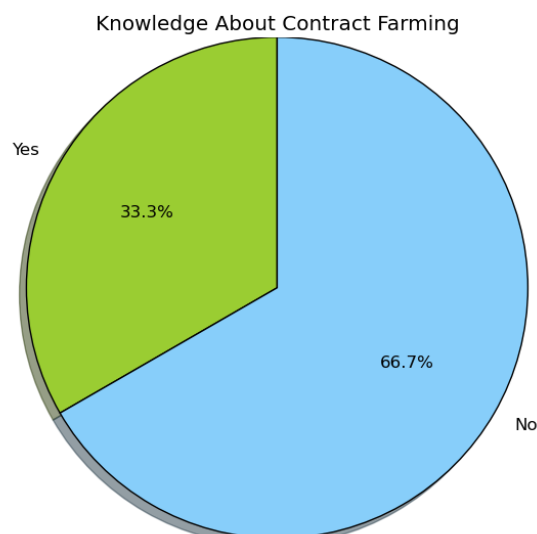


Figure 13 How many farmers know about Contract Farming?

- Decision of what to grow next

80% of farmers preferred growing crops which are grown traditionally by their family. No one actually checked price trends for crops before planning to grow crop. Talking to potato farmers we found, despite facing excessive loss this year in potato sell; they'll still continue to grow it for next season.

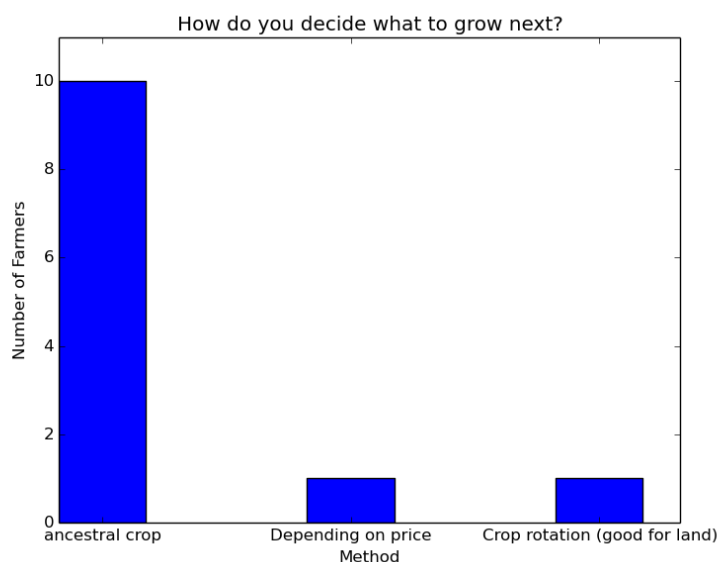


Figure 14 How Farmers Decide what to grow next?

- Use of Storage Facility

Almost every farmer knew about storage facility but very few used it to store commodities because they found storage facilities as costly and they wanted immediate cash. However, most of them agreed storing commodities at home and selling them at the time of favourable prices.

Among minorities were the potato farmers who used cold storages to store potatoes between March to November.

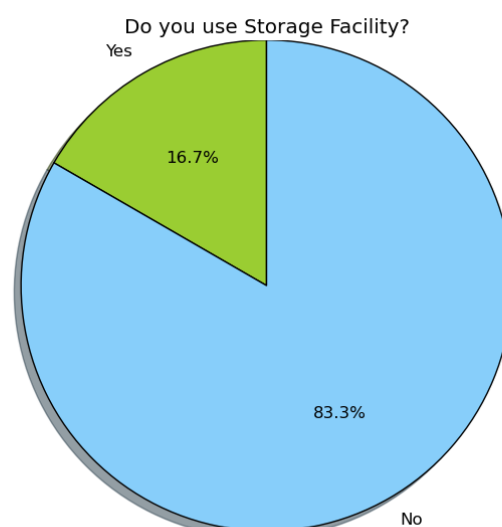


Figure 15 How many Farmers use Storage Facility?

- Knowledge about Online Exchanges
 

None of the farmers were aware about the possibility of selling commodities through online exchanges. It may be because most of the farmers we interviewed were vegetable, fruit farmer or grew grains for the purpose of family consumption and neither vegetable nor fruit are sold at these exchanges.
- Loans
 

Everyone said they have never taken any loan from banks although they agree taking loans from informal means. Also talking to commission agent we found they often give loans/advance to farmers.
- Access to Internet
  - a. Facility to access Internet in the village
 

Almost everyone we interviewed either had access to internet or had internet in their village. The good reach to internet access can be also because azadpur mandi is located in city like Delhi and most of the farmers came from nearby places/ outskirts of Delhi.
  - b. Use of Internet to avail price Information
 

Despite of good access to the internet, farmers hardly used it as a means to discover price of commodities and plan their sell. This is because they were not aware that prices can be found online and moreover they believed that the prices are highly volatile so there is no use in determining it beforehand. However, we found some farmers do gather information before coming to mandi like we saw in the case of orange farmer who enquired around 2-3 mandis and decided to sell at Azadpur for sake of extra profits.



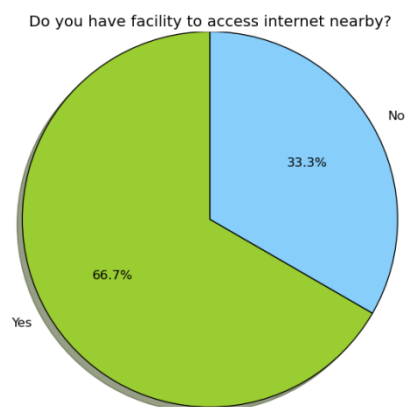


Figure 16 How many Farmers have facility to access Internet nearby?

## List of Figures

|   |    |
|---|----|
| Figure 1 Facilities at Mandi .....  | 4  |
| Figure 2 Functionality of Mandi .....                                     | 5  |
| Figure 3 Age Distribution of the Farmers Interviewed .....                | 9  |
| Figure 4 Education Details of the farmers Interviewed .....               | 9  |
| Figure 5 Type of Vehicle owned by Farmers.....                            | 10 |
| Figure 6 Type of Mobile Owned By Farmers.....                             | 10 |
| Figure 7 Area of land owned by Farmers.....                               | 11 |
| Figure 8 Source of Price Information .....                                | 12 |
| Figure 9 How many farmers know about Kisan Seva Kendra? .....             | 12 |
| Figure 10 How Frequently Farmers Visit Mandi .....                        | 13 |
| Figure 11 How many farmers know about Retail Price?.....                  | 14 |
| Figure 12 How many farmers know about MSP? .....                          | 14 |
| Figure 13 How many farmers know about Contract Farming?.....              | 15 |
| Figure 14 How Farmers Decide what to grow next? .....                     | 15 |
| Figure 15 How many Farmers use Storage Facility? .....                    | 16 |
| Figure 16 How many Farmers have facility to access Internet nearby? ..... | 17 |

## Appendix A: Questionnaire to farmers

|   |
|---|
| <b>Name:</b>  |
| <b>Age:</b>   |
| <b>Educational Qualification:</b>                                   |
| <b>Vehicle owned:</b>   |
| <b>Type of mobile owned:</b>  |
| <b>Landholding/Location:</b>  |
| <b>Average Annual Income:</b>                                       |
| <b>Produce Per Year:</b>  |
| <b>Type Of Commodity they Grow:</b>                                 |
| 1. From where do you get price information?                         |
| 2. What do you know about Kisan Seva Kendra?                        |
| 2-a. Do you know what its number is?                                |
| 2-b. Do you call them for help? If yes, then how often              |
| 3. What do you know about at what places you can sell your produce? |
| 4. How frequently do you visit Mandi to sell you produce?           |
| 5. How often do you communicate with Commission agents?             |
| 6. How much do you have to pay them (intermediaries)?               |
| 7. How much do you have to travel to reach to Mandi?                |
| 8. Are you aware of the retail prices in the city?                  |
| 9. What do you know about MSP?                                      |
| 9-a. For what crops MSP is defined?                                 |

|  |
|--|
| 10. What do you know about Contract farming? If yes, any experience.             |
| 11. How do you decide what crop to grow next?                                    |
| 12. If we show you trend of prices over past years, will that help you?          |
| 13. Do you use storage facility?   |
| 14. If you are given information about the warehouses, would you like to use it? |
| 15. What do you know about Commodity Exchange?                                   |
| 15-a. Do you know about spot and future exchange?                                |
| 16. Do you take loans?   |
| 16-a. Do you find difficulty in getting loans?                                   |
| 16-b. Do you know that receipt given at warehouses can be used to get loans?     |
| 17. Do you use smart phones?   |
| 18. Do you access Internet to get price information?                             |
| 19. What do you know about agmarknet website?                                    |
| 20. Do you have facility nearby to access Internet?                              |