

1. INTRODUCTION:

Onions (*Allium cepa*) are an important food in India, not just for their broad culinary uses, but also because their price swings can influence political outcomes. The vegetable is treated almost as a staple food, for its flavor and for its nutrients. Found in chutneys, curries, samosas, and many more dishes, onions are a requisite ingredient used from base to garnish. India is the world's second-largest producer of onions, after China. Even though India consumes and produces a great deal of onions, it has had considerable trouble smoothing out eye-watering price volatility. In various major Indian cities, retail prices of onions more than quadrupled between May 2013 and October 2013, before falling back at the beginning of the following year; a similar spike happened between May 2015 and September 2015, in which retail prices nearly doubled before falling back down.

Since retail prices of onions make up a significant part of domestic food indices, onions are inextricably linked to the level of food inflation in the country. As a result, onions have become one of the most politically sensitive commodities in India, and price hikes have played a part in determining political fortunes. The triumph of Indira Gandhi's Congress Party in India's 1980 general election is held up as the case example in which food inflation toppled a ruling party. Ever since, government officials have reacted promptly to rises in onion prices with a variety of policies, which include raising minimum export prices to short-term banning of exports, relaxing restrictions on imports, and putting curbs on speculative activities. These various policy measures have had mixed results, and the price of onions in India has remained volatile.

BACKGROUND

Onions grow in a variety of soil conditions, and their bulbs can be harvested from seeds in as little as three months. In India, onions are cultivated over three crop seasons: Kharif (May to September), early Kharif (August to February), and Rabi (October to April), with the bulk of production coming over Rabi, after the summer monsoons. India's onion production is concentrated in the country's central and western states with three states, Maharashtra (which accounts for over a quarter of production), Karnataka, and Madhya Pradesh being responsible for more than 50 percent of the country's production.

India has significantly ramped up onion production in the last half century. In 1963, it produced nearly 1.3 metric tonnes of onions; 50 years later, it produces around 20 metric tonnes a year (approximately an annualized growth rate of 11 percent). India produces more onions than entire continents, including Europe, North America, South America, and Africa; only China produces more, at around 22 metric tonnes. The production increases in India can largely be explained by an increase in the amount of land it uses to produce onions. Between 2000 and 2013, India increased the area harvested from 450,000 hectares to 1,217,000 hectares. Meanwhile, the onion yield per hectare has improved as well. In 2000, around 10 tonnes of onions could be harvested per hectare; most recent figures available indicate that the yield has increased by over 50 percent, to 15.86 tonnes per hectare. In addition to increasing the use of fertilizers, the country's producers have increased yield by using new planting methods, improving pest control, adopting new onion varieties.

Still, the yield increase isn't particularly impressive in the context of other large producers. India's yields are still significantly behind that in South Korea and the United States—currently the world's leaders in onion yield. In most recent data available, these two countries respectively produced 64.58 tonnes per hectare and 54.47 tonnes per hectare.

2. OBJECTIVES:

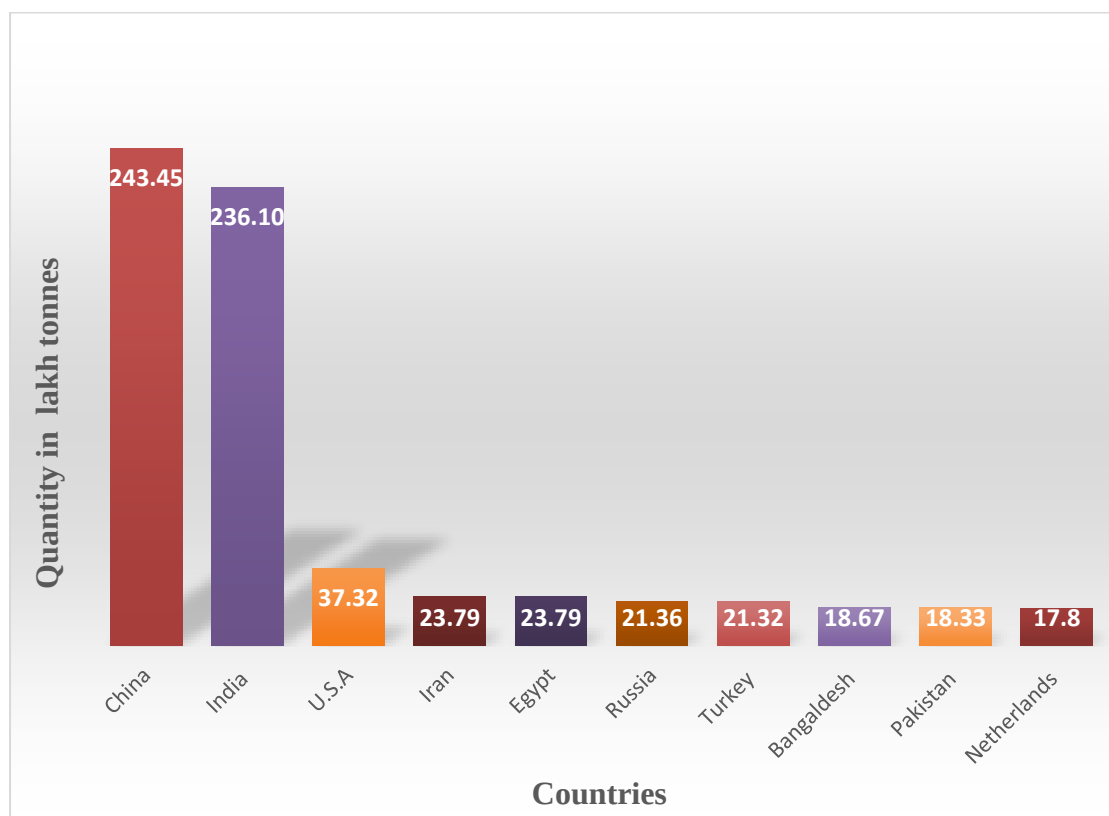
1. To know about the onion production scenario.
2. To know about the onion crisis causing issues and market structure in India.
3. To review the related studies.

3. GLOBAL ONION PRODUCTION:

There is total 170 countries in the world cultivate onion for domestic use while some of them grow onion for trade as well as 8 percent production comes in international trade. Around 65 percent of global onion output comes from the 10 top onion producing countries. Onion trading dates all the way back to 2,000 BC and for centuries, it has been one of the most consumed crops on the planet. Onion (*Allium cepa* L) is extremely important vegetable crop not only for internal consumption but also as highest foreign exchange earner among the fruits and vegetables.

The total onion production in the world in 2018 was 97.86 million tonnes, which was harvested in the area of 9.2 million acres, and the yield was 18.82 T/ha (Faostat.org). China is biggest name in onion international market and stands first in onion production with an area 11.02 lakh ha, productivity 22.1 T/ha and production 243.45 lakh tonnes. India stands second with production 236.10 lakh tonnes and United States of America stands third in global onion production. Iran, Egypt, Russia, Turkey, Bangladesh, Pakistan and Netherlands are the rest of the countries among the top 10 producing countries globally. A bar graph is given showing the countries total quantity of onion production along with their position, Quantity given in tonnes.

Fig: - Top 10 onion producing countries in the world during 2019



Source: Faostat.in

4. ONION PRODUCTION IN INDIA:

The major Onion producing states are Maharashtra, Madhya Pradesh, Karnataka, Rajasthan, Gujarat, Bihar, Andhra Pradesh, Haryana, West Bengal, Uttar Pradesh and Chhattisgarh in the country. These States account for almost 90% of the total onion production of the country.

The production of onion during the year 2018-19 as per third advance estimate is slightly lower as compared to the previous year. However as compared to past 5 years average production, it is about 12% higher. Details regarding seasonality, harvesting period and production of Onion crop are given in Table.

**Table: SEASONS, TRANSPLANTING & HARVESTING PERIOD & PRODUCTION
(Agriculture Year: July-June, Production in Lakh Tonnes)**

Season	Transplanting Months	Harvesting months	Five-year average production	Production
Kharif	July- August	Oct- Dec	2012 to 2016	2017-18
			30	30
Late kharif	Oct–Nov	Jan – Mar	39	47
Rabi	Dec- Jan	End of march to may	128	143
Total			197	220

(Source: State Departments of Horticulture & Agriculture)

CURRENT STATUS OF ONION:

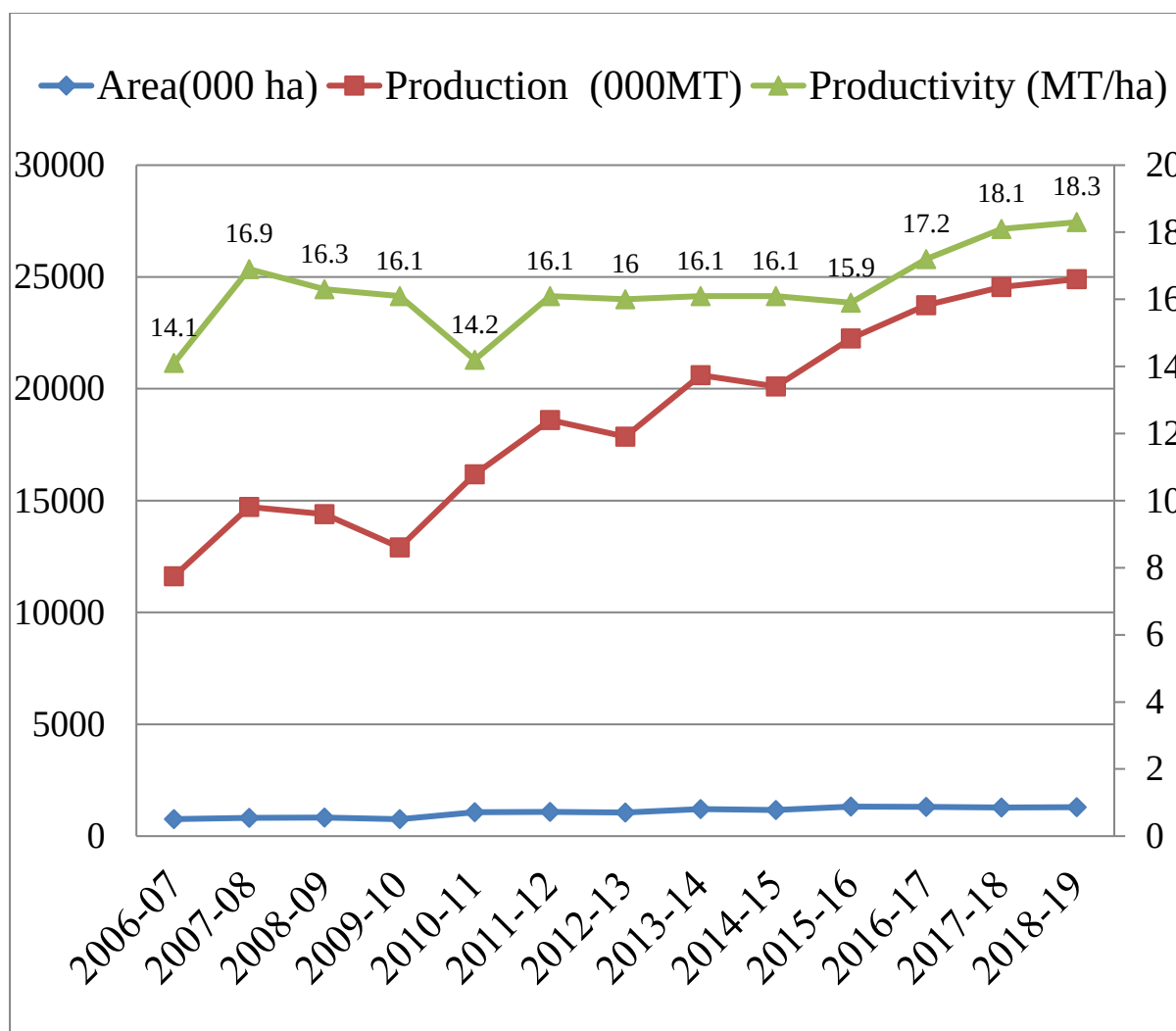
The harvesting of Late Kharif onion has started in Maharashtra, Madhya Pradesh, Rajasthan and Haryana. The quality of onion coming in the market is medium to good.

1. The area coverage under Late Kharif is expected to be the same of last year.
2. Transplanting of seedlings of Rabi onion is continued in the onion growing state of the country.
3. The area under Rabi onion is expected to be the same of last year.

Maximum onion production takes place in Maharashtra followed by Madhya Pradesh, Karnataka, Bihar, Rajasthan, Andhra Pradesh, Haryana, west Bengal, Gujarat and Uttar Pradesh are the top 10 producing onion states in our country. The table given below shows the area, production and productivity and yields of different states of our country of onion crop during the year 2006 -07 to 2018-19.

Table: Area, Production and Productivity of onion in India over the years (2006-2019)

Year	Area (000ha)	Production (000MT)	Productivity (T/ha)
2006-07	767.9	10847.4	14.1
2007-08	821.0	13900.4	16.9
2008-09	834.2	13564.5	16.3
2009-10	756.2	12158.8	16.1
2010-11	1063.8	15117.7	14.2
2011-12	1087.2	17511.1	16.1
2012-13	1051.5	16813.0	16.0
2013-14	1203.6	19401.7	16.1
2014-15	1173.3	18927.4	16.1
2015-16	1320.0	20931.0	15.9
2016-17	1306.0	22427.0	17.2
2017-18	1285.0	23262.0	18.1
2018-19	1293.0	23610.0	18.3



Source: www.indiastat

ONION PRODUCING STATES OF INDIA:

The table given below shows the area, production and productivity and yields of different states of our country of onion crop during the year 2019. Maharashtra state stand first in area with 39.50 %, second Karnataka state with 15.20% and third position Madhya Pradesh with 11.70%. In production Maharashtra state stand first with 35.80%, second Madhya Pradesh state with 15.70% and third position Karnataka with 13.00%. In productivity Madhya Pradesh stand first with 24.53%.

Maharashtra and Karnataka states contribute more than 50% of onion production to the country. The green part in map indicating onion growing belt in India

Table: Top 10 Onion producing states of India during the year 2019

States	Area (^{'000} ha)	In %	Production (^{'000} MT)	In %	Avg. Yield (T/ha)
Maharashtra	507.96	39.5	8474.73	35.8	17.43
M. P	150.87	11.7	3725.21	15.7	24.53
Karnataka	195.28	15.2	3076.19	13.0	15.29
Bihar	53.77	4.2	1302.86	5.5	23.07
Rajasthan	64.76	5.0	1073.01	4.5	15.39
Andhra Pradesh	42.00	3.3	994.07	4.2	21.80
Haryana	29.93	2.3	908.83	3.8	23.44
West Bengal	35.20	2.7	638.38	2.7	18.00
Gujarat	22.49	1.8	540.67	2.3	24.29
U. P	26.85	2.1	440.38	1.8	16.37
Others	155.89	12.1	2346.63	9.9	15.655
Total	1293.00		23610.01		18.10

Source: NHRDF



Source: NHRDF

5. ARRIVAL PATTERN OF ONION IN DIFFERENT STATES:

The requirement of onion is almost constant throughout the year and availability of fresh onion is limited to 7 or 8 months and there are lean periods when prices shoot up because of poor storage conditions available in the country. The main availability seasons in different parts of country are given in table. There are three main seasons of onion production namely (i) Kharif crop (ii) late Kharif (iii) Rabi crop. The table below depicts the arrival pattern across different months in various states.

Table: Arrival pattern of onion in leading states

Sl.No.	States	Cropping season	Availability
1.	Maharashtra and Gujarat	Kharif crop Late Kharif Rabi	October – December January – March April – June
2.	Tamil Nadu, Karnataka and Andhra Pradesh	Early Kharif Rabi	August October – November March – April
3.	Rajasthan, Bihar, Uttar Pradesh, Haryana, Punjab, West Bengal and Orissa	Kharif Rabi	November – December May - June

Source: APEDA

Table: Show Concentrated Pockets of Onion Growing States

State	Districts
Maharashtra	Nasik, Ahmednagar, Pune, Sholapur
Karnataka	Dharwad, Chitra Durga, Gadag, Haveri, Bagalkot, Davengere
Andhra Pradesh	Kurnool, Medak, Rangareddy, Cuddapah, Mahbubnagar.
Uttar Pradesh	Varanasi, Patan, Kanpur, Lucknow, Allahabad, Faizabad
Tamil Nadu	Coimbatore, Perambadur, Namakkal, Dindigul Anna, Tiruchirappalli, Periyar
Gujarat	Bhavnagar, Surendranagar
Punjab	Ropar and Ludhiana

Source: APEDA

Table: Depicting the Details of Catchment Areas of Market of Onion in Leading States

States	Districts (Market)	Blocks
Maharashtra	Nasik	Kalvan, Peint, Igatpuri, Sinnar, Niphad, Yeola, Nandgaon, Satara, Furgana, Dindori, Melgaon,
	Ahmednagar	Srirampur, Sangamner, Akola, Rahuri, Nevasa, Parner, Pathardi, Srigonda, Karjat
	Pune	Junnar, Ambegaon, Ghod, Rajgurunagar, Wadgaonsirur, Mulshi, Welhe, Purandhar, Bhore, Baramati, Indapur
	Sholapur	Karmala, Barsi, Madha, Mohol, Mangalwedha, Singole, Malsiras, Pandharpur, Akalko
Karnataka	Dharwad	Hubbali, Kundgol, Navalgund, Yadvad, Kalghatgi, Kargod, Kamdali
	Bagalkot	Jamkhandi, Mudhol, Hungund, Badami.
	Devengere	Harpana, Lalli, Harihar, Vasana, Honnali, Channagiri, Nyamati, Matti.
Uttar Pradesh	Varanasi	Sindhora, Babatpur, Phulpur, Chhapra, Mirzaurad,
	Kanpur	Bithur, Maharajpur, Narwal, Sarsaul, Bindhnu, Bhimser
	Lucknow	Mal, Rahimabad, Bhauli, Itaunja, Mahoma, Nagam, Nigohan, Sisendi, Bijnaur, Utrahtia, Gosainganj, Jugganar, Chahat, Bani, Alamnagar, Kakori, Bhauli

Source: APED

6. Exports of onions: -

India is the second largest onion growing country in the world. Indian onions are famous for their pungency and are available round the year. Indian onions have two crop cycles, first harvesting starts in November to January and the second harvesting from January to May.

Varieties: The major varieties found in India are Agrifound Dark Red, Agrifound Light Red, NHRDF Red, Agrifound White, Agrifound Rose and Agrifound Red, Pusa Ratnar, Pusa Red, Pusa White Round. There are certain varieties in yellow onion which are suitable for export in European countries Tana F1, Arad-H, Suprex, Granex 55, HA 60 and Granex 429.

Areas of Cultivation: The Major Onion producing states are Maharashtra, Karnataka, Madhya Pradesh, Gujarat, Bihar, Andhra Pradesh, Rajasthan, Haryana and Telangana. Maharashtra ranks first in Onion production with a share of 35.80%.

India Facts and Figures: There is a lot of demand of Indian Onion in the world, the country has exported 21.83 lakh tonnes of fresh onion to the world for the worth of Rs. 3468.83 crores during the year 2018-19.

Modern packhouses for sorting, grading and packing of the quality onions are available at production zones. Guidelines have been framed to determine the compliance with maximum residue levels (MRLs) for the identified pesticides. Grade designation and quality development parameters have been set up.

Major Export Destinations of India (2018-19): Bangladesh, Malaysia, Sri Lanka, U Arab Emits and Nepal. The figure given below shows the export of onions to top five countries and their respective shares during the year 2018-19 and also India stands 3rd in global market of export.

Figure: Top 5 India's Export Destinations Year: 2018-19 (Value & % Share in total)

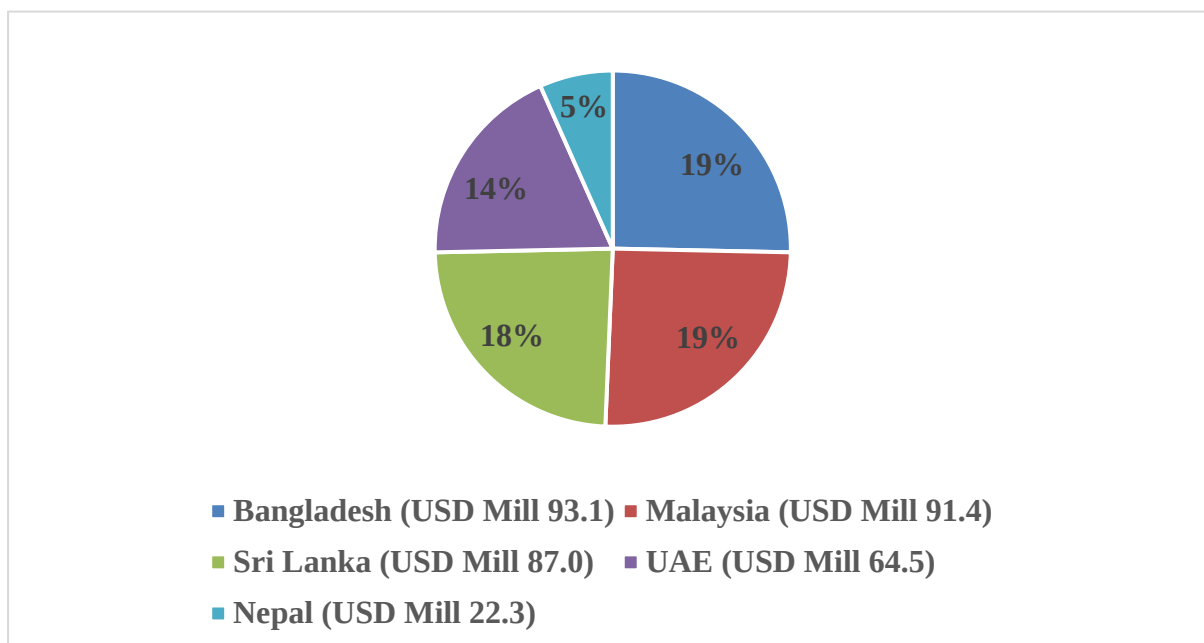
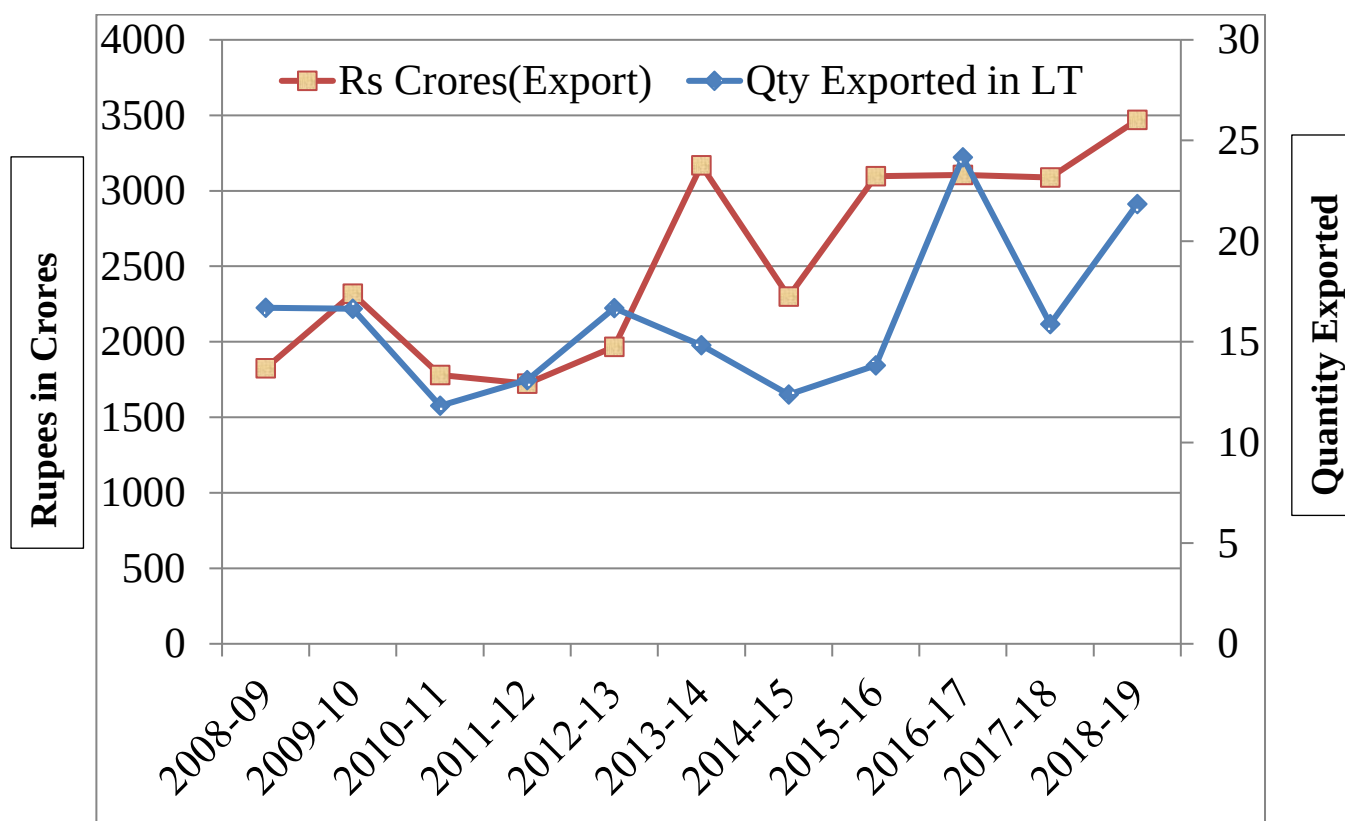


Figure: India's export trend from 2008-19



Year	Qty in LT	Rs Crores
2008-09	16.69	1825.63
2009-10	16.65	2319.41
2010-11	11.82	1779.31
2011-12	13.10	1723.03
2012-13	16.67	1966.67
2013-14	14.83	3169.63
2014-15	12.38	2300.57
2015-16	13.83	3097.19
2016-17	24.16	3106.08
2017-18	15.88	3088.79
2018-19	21.84	3468.83

Source: APEDA

7. ONION IMPORTS:

Whenever Indian onion market getting shortage on that period, government imports from various countries as it cannot match the supply and demand. The table given below shows that India importing onions from a list of countries along with their quantity and value over the years. In the year 2018-19, India had imported about 324 tonnes of onion. Major countries from onions are imported like

Major Onion Importing Countries: Egypt, Afghanistan, China, Iran, Pakistan, Turkey, Ukraine, Sri Lanka, Malaysia, Maldives, Nepal, Dubai, Kuwait, Indonesia, UAE, Singapore, Seychelles, Saudi Arabia, Qatar, Bangladesh

NAFED and its intervention in onion price stabilization

As per direction of Department of Agriculture, Cooperation and Farmers Welfare, Govt. of India, NAFED procured 5136.742 MTs of onion directly from the farmers in open auction in Lasalgaon, Maharashtra and Alwar Mandies, of Rajasthan under Price Stabilization Fund (PSF) of Govt. OF India during the month of September 2017 to March 2018. Procured onion stocks after its preliminary sorting and grading were dispatched to Delhi for sale through Mother Dairy (SAFAL) outlets and NAFED Adat shops at Azadpur, Delhi. Services charge of Rs.34.61 lakh was earned in the operation.

Figure: India's import trend from (2008-19) Years.

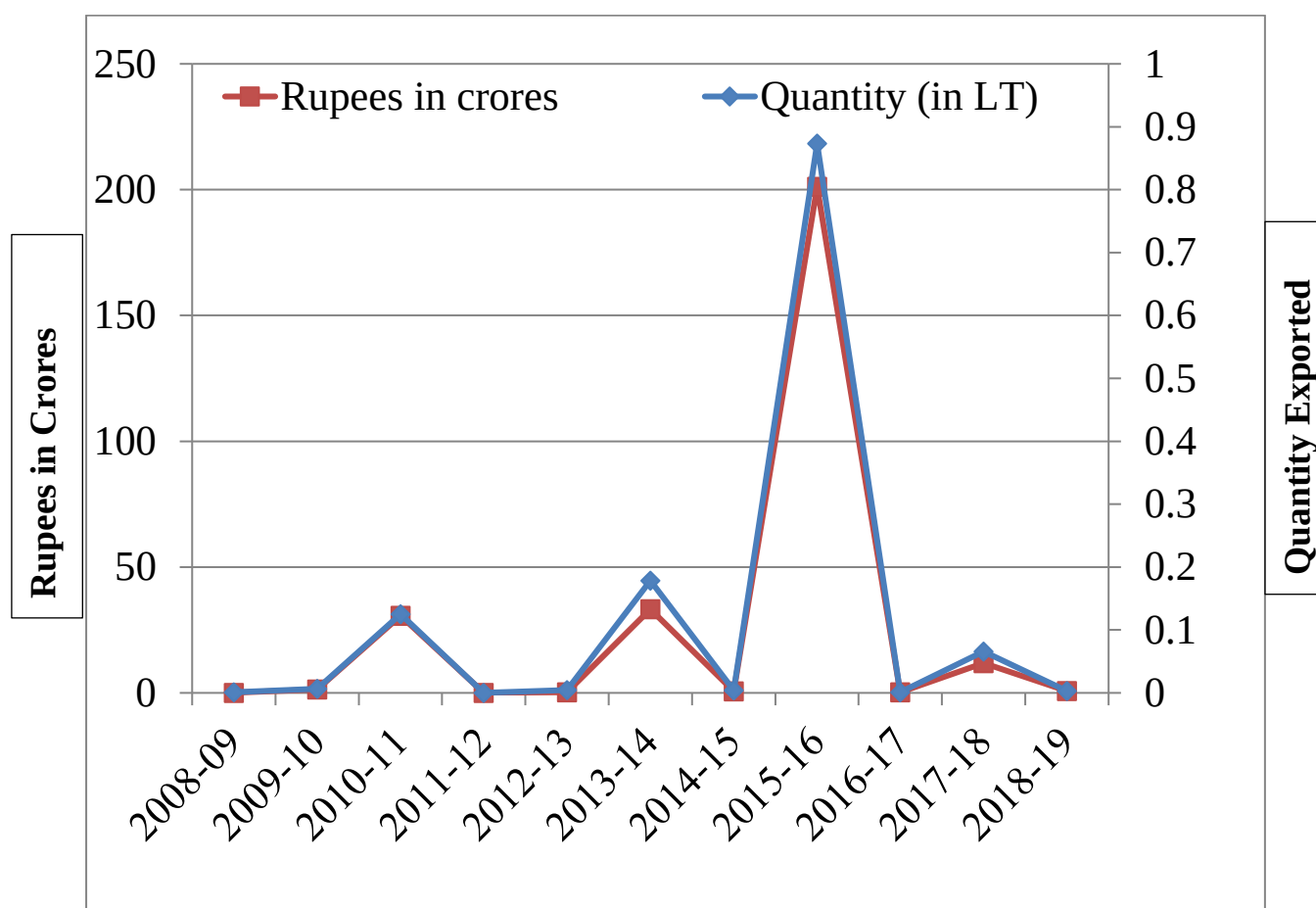


Table: India's import trend from (2008-19) Years.

Year	Qty in LT	Rs in crores
2008-09	0.00089	0.07
2009-10	0.00629	1.35
2010-11	0.12506	30.71
2011-12	0.00012	0.07
2012-13	0.00450	0.3
2013-14	0.17843	33.3
2014-15	0.00386	0.64
2015-16	0.87323	201.13
2016-17	0.00086	0.21
2017-18	0.06592	11.88
2018-19	0.00324	0.8

Source: APEDA

8. ONION PRICE VOLATILITY:

When it comes to Indian cooking, we cannot do without onions. And so, it is no surprise that the recent spike in the price of onions has everyone worried and angry. And rightly so. What is unfortunate is that we have been through this time and time again. Onion is one of the most market sensitive commodities that creates ripples in the trade as also political circles. High price variability in case of primary products affects both producers as well as consumers through a spill over effect to the other sectors, thereby leading to high inflation in the economy.

Onion prices are volatile due to a variety of factors. For one thing, production is highly seasonal, and onions don't go to market in consistent quantities throughout the year. Given general inadequacies of storage facilities, and the fact that India severely limits onion imports, production fluctuations significantly affect prices. The supply of onions typically declines and prices trend up between July and September, over the monsoon season and before major harvests.

Before a vegetable can go from farm to market, it may have to pass as many as four layers of intermediaries. Onions and other fruits and vegetables have to be loaded, repacked, and sorted between each of these middlemen; in a price hike, each of them applies their own mark-ups. In addition to raising fees and reducing transparency, the need to go through intermediaries increases the risk that vegetables will rot before they get to market. The government also frequently points to speculators to explain price hikes.

When prices rise, officials decry hoarding behaviour, and then conduct well-publicized raids on warehouses in which the vegetables are stored. In response to these indignities, onion sellers have organized strikes to protest raids. Nonetheless, the government has not given up the practice, especially through the big price hikes in 2013 and 2015.

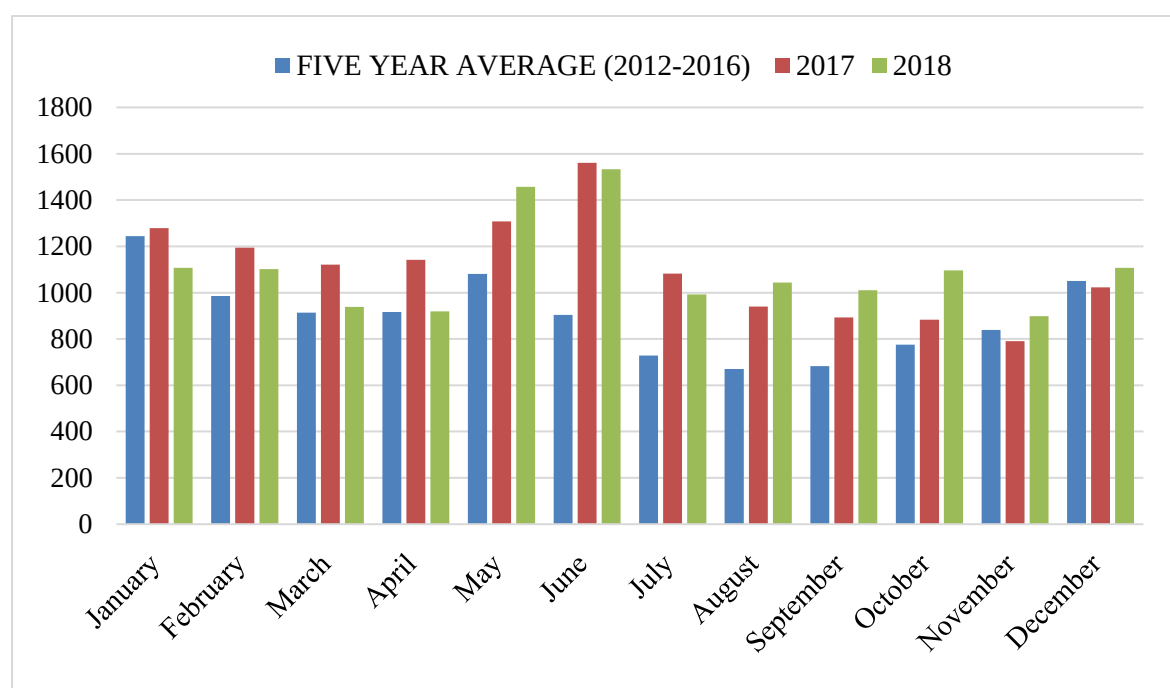
To avoid price volatile situation are:

Better system for forecasting total production considering economic and meteorological events, at least in major onion producing areas. This would help in taking appropriate decisions about onion export which in turn can avoid significant fluctuations in its prices in the wake of increasing international demand for Indian onion. National market information system (prices observatory) for recording, disseminating and analyzing price data of onion for key markets in the country for better price transmissions to the actors involved in the supply chain.

9. ALL INDIA MONTHLY ARRIVALS FOR ONION:

Monthly arrivals are the quantity of onions arrived in a market over a month, the five years (2012-2016) average monthly arrival of Onion in different markets of the country along with average arrival of 2017 and 2018 are given in graph. The arrival of December, 2018 is higher than previous year as well as five years average.

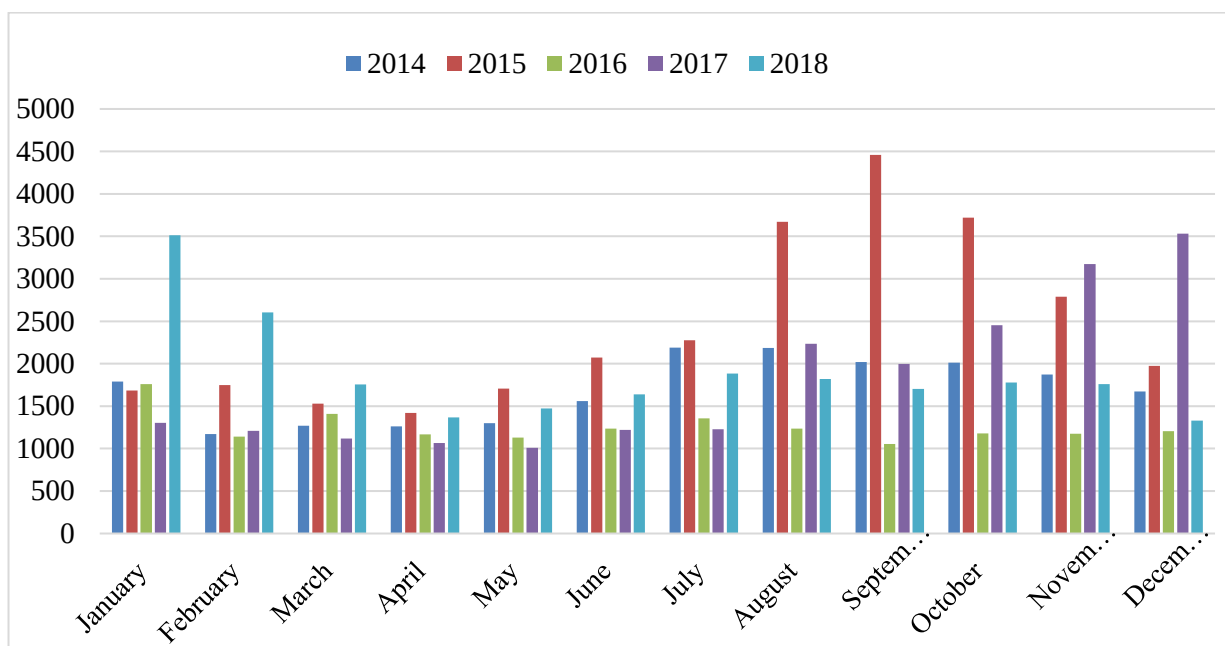
The graph given below shows the all-India monthly average of onion over the years. As one can see there is wide variation of prices over the months in a year. The minimum price in 2014 was Rs.1171.5 during February and maximum was Rs.2190.0 in the month of July. In 2015 the minimum price was Rs.1421.7 in the month of April and maximum was Rs.4459.1 in the month of September respectively.



Source: Agmarknet

Graph: All India monthly average wholesale prices of onion (Rs/quintal)

The graph below the all-India monthly average over the years for onion crop. The all-time highest was in the month of September 2017 as one interprets this from the figure.



Source: Agmarknet

COMPARISON OF PRICE AND ARRIVALS OF ONION IN BENGALURU:

The low self-life of onion and highly sessional production of onion because of that it's too difficult continues supply of onion in domestic market. The below table shows comparison of price and arrival of onion in Bengaluru domestic market, in the month of august, 2019 wholesale price was 1577 Rs/Qtl, retail price 2625 Rs/Qtl and total arrival of onion 51765 MT as well as the month of august, 2020 wholesale price was 1253 Rs/Qtl, retail price 2087 Rs/Qtl and total arrival of onion 26557 MT.

Table: Comparison of price and arrivals of onion in Bengaluru for the year 2019 and 2020 (Price in Rs/Qtl & Quantity in MT)

Month	Wholesale Avg. Price 2019	Retail Avg. Price 2019	Total Arrival 2019	Wholesale Avg. Price 2020	Retail Avg. Price 2020	Total Arrival 2020
January	545	1586	61363	3280	5500	39474
February	491	1035	50224	1966	3384	44473
March	646	1217	53392	1494	2638	46386
April	740	1405	48478	0	0	0
May	796	1513	45229	0	0	0
June	1123	1900	47577	850	1436	45336
July	1113	1859	52246	825	1400	14927
August	1577	2625	51765	1253	2087	26557
September	2620	3978	63188	0	0	0
October	2463	3825	139206	0	0	0
November	4771	8367	102924	0	0	0
December	7792	10604	50300	0	0	0

Source: APEDA

10. ONION CRISIS THROUGH THE YEARS:

Crisis means time of intense difficulty or danger and onion crisis means there is no clear definition for onion crisis, but it is referred as high rise in onion prices, shortfall in production, improper storage, unplanned exports etc. leads to imbalance in the economy. India has seen rampant onion crisis over the years as mentioned below;

- In 1998
- In 2010
- In 2013
- In 2015
- In 2019
- Now in 2020

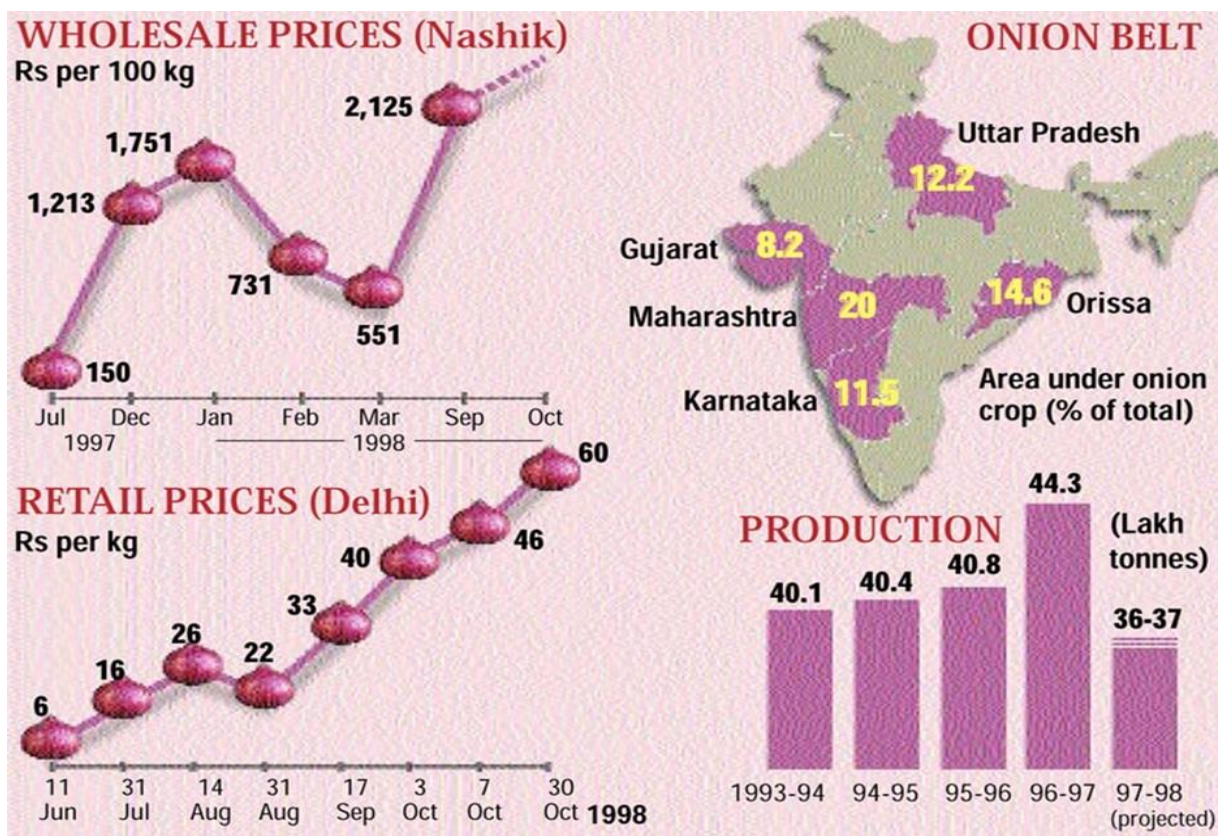
ONION CRISIS 1998 (THE ONION BUNGLER):

The main reason for onion crisis in 1998 was not bad crop but it was rather due to unplanned exports. According to official Union commerce ministry figures, between April and September the government exported as much as 2.05 lakh tonnes of onions through the National Agricultural Cooperative Marketing Federation of India (NAFED), the sole canalising agency. No one in the government seemed to have grasped the effect this would have on the local market. Neither did they examine why the previous United Front government had banned onion export from January to March in the year 1998. Even the much-banded bad crop argument really does not hold much water.

The 1997-98 onion produce was 36.86 lakh tonnes a 13.7 per cent drop compared to the previous year's output. This, according to onion traders, would not have translated to more than a 50 per cent hike in the retail price of onions. But prices shot up by as much as 700 per cent, which is perceived as a clear case of mismanagement of resources. By the time the present government woke up and banned exports in October, the damage had already been done.

This year's October crop also did not look too promising. But the exports continued. Even in September, when the onion shortage was sending prices soaring, NAFED actually sold 2,000 tonnes in the international market. Now with the government allowing the import of onions under the open general licence (OGL), Indian traders will have to source the Indian onions from the Middle East or Iran. Higher onion prices have not only added to high food price inflation, but also rattled governments over the years, for example contributing to the defeat of the Bhartiya Janata Party (BJP) in state elections in Delhi in 1998. The roots of onion crisis are

- January 1998: Unseasonal rains affect production. Prices rise to Rs 20-25 from Rs 9-12 per kg the previous month. Exports are banned.
- March-July: Exports resume but rabi crop affected by heatwave. Prices climb further, touching Rs 28 in August. But Government ignores danger signals.
- September: Government wakes up as unseasonal rains delay kharif harvest. Imports planned as prices shoot up.
- October: As prices cross the Rs 50 mark, the Government puts imports on OGL. International prices go up in anticipation of Indian demand.



ONION CRISIS 2010:

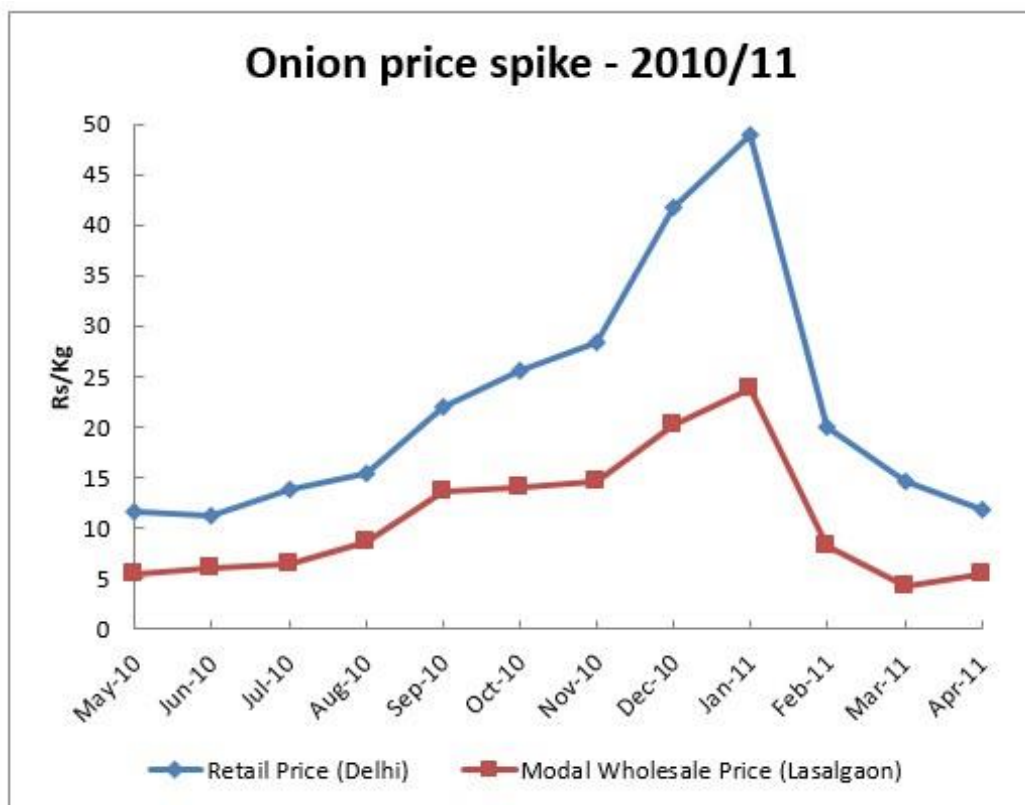
The Indian onion crisis of 2010 involved the dramatic rise in the cost of onions across markets in India. The crisis was caused by errant rainfall in the onion producing regions which led to a shortage of onion production. The crisis caused political tension in the country and was described as "a grave concern" by then Prime Minister Manmohan Singh. Onions are considered an indispensable ingredient of most Indian cooking, providing the pungent foundation for a thousand different curries and other dishes. Onion prices have been an important political issue: they were regarded as the decisive factor in the 1998 state elections in Delhi and Rajasthan, and were responsible for bringing down the central government in 1980.

In November 2010, unseasonal and excessive rainfall in onion-producing regions such as Nashik in Maharashtra delayed the arrival of onions in markets. In December, when fresh crop usually begins to arrive, onion shipments were reduced from 2000-3000 tons a day to 700-800 tons a day in New Delhi markets, raising the price of onion from ₹35 (51¢ US) to ₹88 (US\$1.30) per kg in the period of one week. The price on some online portals was significantly lower, about 30-40/kg.

AFTERMATH

Wary of historical precedent, Prime Minister Manmohan Singh and his government responded forcefully by banning onion exports, lowering import taxes and by getting in shipments of onions from neighboring Pakistan. In late December, following government restrictions on exports, wholesale onion prices went down to ₹50 (72¢ US) per kg in metropolitan markets.

Along with errant rainfall, hoarding, official incompetence and price-ramping by traders have also been blamed for the crisis. The Times of India, in a back-of-the-envelope calculation allege that wholesale retailers and speculative traders in New Delhi charged a mark-up of over 135-150 %, taking in profits of over ₹1,000,000 (US\$14,000) a day which was called as “The Great Indian Onion Robbery”, the opposition Bhartiya Janata Party blamed the crisis on policy decision on exports and imports. Responding to a call from the opposition, 20,000 people demonstrated on the streets of New Delhi to protest the price rise and corruption in the government. India imported around 12,563 MT of onions from Afghanistan & Egypt.



Source : NHRDF

ONION CRISIS 2013:

In 2013, onion prices have again hit the roof in Mumbai, Delhi and other major cities after stabilizing briefly in August 2013, leading the Centre to think that traders and speculators might be artificially increasing the prices of onion. The prices soared from Rs. 40 per kg to Rs. 60 per kg within a week, as rate of wholesale prices shot to of Rs. 5,500 per quintal against the normal rate of Rs. 1,500 per quintal. Slow release of onion stocks by a clutch of traders rather than a shortfall in production has emerged as a key reason for retail prices rocketing to Rs 70-80 a kg. The government uncovered the plot hatched by traders operating from major onion markets in Nashik in Maharashtra. As the prices showed signs of correction

The Bhartiya Janata Party (BJP) and the anti-corruption Aam Admi (Common Man) parties have opened greengrocery vans in the capital Delhi to sell heavily subsidized onions to embarrass the government and highlight eye-watering price increases. The opposition parties are selling their onions for between 25 rupees and 40 rupees per kilo, while commercial shops have been selling them for between 60 and 80 rupees.

The status of arrival of onions shows the Asia's largest onion hub Lasalgaon, the supply dipped to 3,000 quintals as against 6,000 quintals on September 6th. Wholesale prices increased from Rs 4,140 per quintal to Rs 5,300. Similarly, in Mumbai the wholesale price increased by Rs.1000 per quintal during this period and in Delhi the increase was about Rs.800. The Wholesale price reduced only in Bangalore where arrival increased by almost 300 percent.

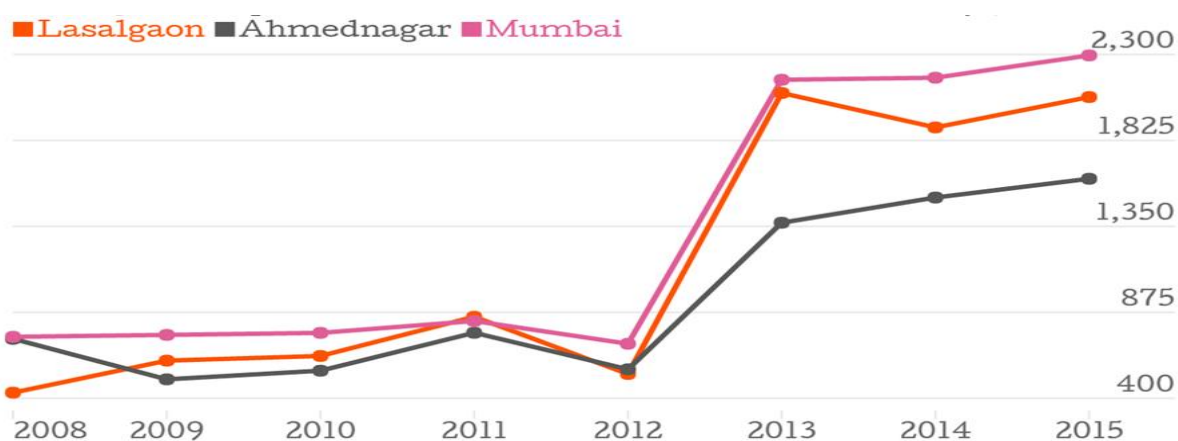


Fig: Average onion prices in various markets of Maharashtra (Rs/quintal)

Source: NHRDF

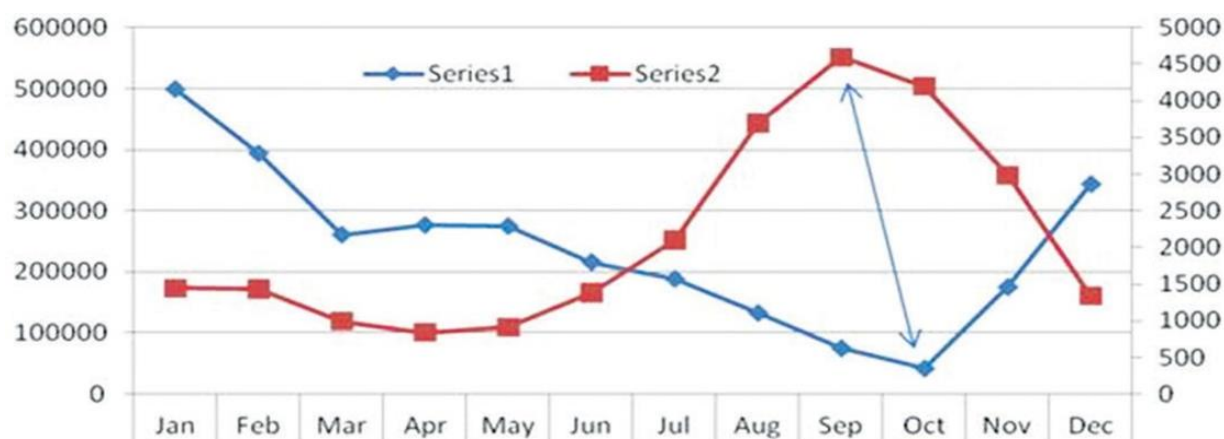


Fig: Arrivals of onions (series-1) and prices (Series-2), quantity in quintals and prices in Rs/quintal for the year 2013
Source: NHRDF

ONION PRICE HIKE 2015:

The main reason for increase in prices of onion in 2015 was due to deficit rains in onion producing regions. There were deficit rains in most parts of Maharashtra, north interior Karnataka and Andhra Pradesh, which has caused delay in planting of kharif onion. This means, the supply situation would remain under pressure as arrival of fresh crop is expected to be delayed, which may put further pressure on prices. Kharif onion is mostly grown in rainfed areas.

As per the Met Department, there is 46 per cent rainfall deficiency in Marathwada and 36 per cent deficit in Madhya Maharashtra. Similarly, there is a 44 per cent rainfall deficit in north interior Karnataka and 32 per cent shortfall in Rayalaseema of Andhra Pradesh. Total onion production is estimated to be at 189 lakh tonnes in 2014-15 crop year (July-June), slightly lower than 194 lakh tonnes, a year ago.

Onion prices at Lasalgaon in Maharashtra -Asia's biggest wholesale market for onions, touched Rs 54 per kg, due to tight supply of the crop. The wholesale price was higher than the average rate of Rs 41 per kg and Rs 15 per kg that prevailed in August 2013 and 2014, respectively. India imported around 87,324 MT of onions from Afghanistan, Egypt and Turkey, to meet our domestic consumption.

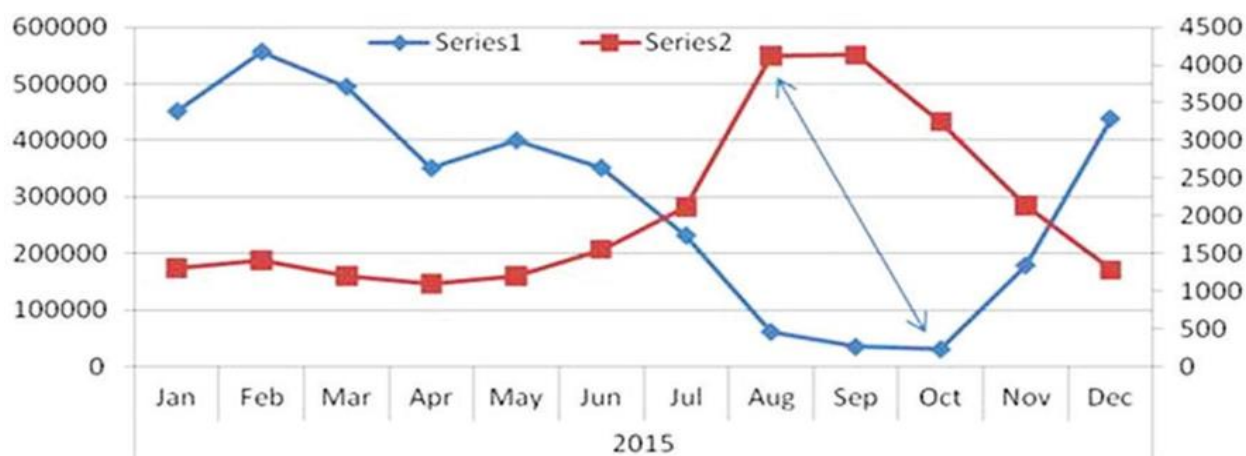


Fig: Arrivals of onions (series-1) and prices (Series-2), quantity in quintals and prices in Rs/quintal for the year 2015
Source: NHRDF

ONION PRICE HIKE 2019:

The major onion growing belt in India was severely affected by floods. The reason behind the fresh hike in onion prices can be attributed to higher wholesale rates triggered by heavy unseasonal rainfall in Karnataka, Gujarat and Maharashtra, the largest onion growing states in the country. There was a shortfall in onion production in Kharif (harvested after October) and late-kharif, hence severe shortage felt during SEPTEMBER-NOVEMBER.

Storage related causes, NAFED was to create a buffer stock of around 60,000 MT for the year, but they were only able to create a stock of 57,372 MT. NAFED stored its buffer stock of 57,372 MT onions using traditional methods. Over half of it got destroyed due to moisture & rain. The wholesale price of onions reached Rs 65 per kilo at the Lasalgaon APMC Mandi. Onion production is estimated to have decreased by 10 lakh tonnes this year, in comparison to last year's kharif season. It was to ease this pressure that the government decided to import of onions. In addition to this, the government also relaxed fumigation norms on onions for import

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NAFED wasted over 30,000 MT onions, more than half of its buffer stock, amid soaring prices

NAFED stored its buffer stock of 57,372 MT onions using traditional methods as opposed to cold storage. Over half of it got destroyed due to moisture & rain.

SAMYAK PANDEY

20 November, 2019

Month	Price (Rs/quintal)
Jan	531
Feb	421
Mar	580
Apr	830
May	931
Jun	1,222
Jul	1,252
Aug	1,880
Sept	3,291
Oct	3,112
Nov*	4,379

23

ONION PRICE HIKE 2020:

The main reason was COVID-infused lockdown directly affect to transportation and heavy rain on total production of onion. The prolonged monsoon in onion growing districts of Maharashtra, Karnataka, and Madhya Pradesh led to widespread crop damage. It led to the loss of nearly a million tonnes kharif onion in Maharashtra alone. The prices of onion have especially seen a spike by Rs. 11.56/kg taking the all-India retail price of the commodity to Rs. 51.95/kg.

Measures taken by government the government had also taken a “pre-emptive measure” to announce a ban on onion export to ensure availability to the domestic consumers at reasonable rates during the lean season before the Kharif onion arrival. Importing onion from Afghanistan, Egypt and Turkey to meet our domestic consumption. The government has also relaxed “the conditions for fumigation and additional declaration on Phytosanitary Certificate (PSC).

What to expect in the coming months? People in the business have said that onion prices may go up as high as Rs 120 per kg as its production has been affected in most of the key states. This is likely to continue till February net year till the new crop season arrives. The current crisis of onion prices is expected to reach a ‘glut effect’ by March 2020, the government assessed, when the Kharif season is fully harvested and with the arrival of Rabi. The government said it was constantly monitoring the prices and stock and will resort to importing onions if needed.

11. ISSUES:

The various issues of onion production are as follows:

1. Seasonality in production and shelf life
2. Onion storage structures.
3. Market structure of onion.
4. Export-import policy.
5. Onion hoarding.

1. Seasonality in production and shelf life:

The seasonality of production of onion hinders the continuous supply of onion to the markets which in turn leads to volatile variation in prices. Onion, as we all know is cultivated across three seasons kharif, late kharif and rabi season. The shelf life of the onions cultivated in kharif and late kharif is only up to 6-8 weeks, whereas the shelf life of rabi onion is of about almost 6 months and approximately forty percent of onion (kharif twenty percent and late kharif twenty percent) is produced in first two seasons and remaining 60 percent is produced in rabi season. This is one of the reasons which causes price volatility.

Fig: Harvesting Season of onion in Leading States

State/UT's	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Andhra Pradesh												
Bihar												
Gujarat												
Haryana												
Karnataka												
Madhya Pradesh												
Maharashtra												
Odisha												
Punjab												
Rajasthan												
Uttar Pradesh												

Source: APEDA

2. Onion storage:

Onion, being high in water content, is a delicate commodity to store and requires special procedure and parameters, giving rise to the concept of Onion cold storage. But due to non-availability of appropriate post-harvest storage facilities, 25-30% of the total produced onions are wasted, which in terms of value amounts to Crores of rupees. Building up of the cold storage unit would minimize the waste up to the level of 3 to 4% that would in turn help the onion growers, and stabilize onion prices in market for all types of consumers.

Onion storage facility available in India

Naturally ventilated structures:

In India, the onions are mostly stored in the ventilated storage structures without any control of temperature and relative humidity. The farmers construct the different types of ventilated storage structures based on the capacity required.



Low-cost thatched roof bamboo storage structure:

This type of storage structure is usually constructed with bamboo framework having the roof made up with sugarcane leaves. This type of storage structure is low cost and easy to construct, but leads up to 42% losses of onion during four months of storage.



Bottom and side ventilated storage structure:

This type of structure has a provision of ventilation from bottom and sides. But, still results in increasing the losses up to 46% in four months storage.



Cold storage structure:

In such types of storage facilities, the onions are stored at 0-5°C and 60-65% RH that leads to much lesser losses as comparative to ventilated storage structure. The cost of construction and running cost are very high as energy required to maintain the storage facility in the temperature range of 0-5°C is high. The other problems are condensation and require lot of energy and time. The bulbs start sprouting immediately after they are removed from the cold storage.



3. Onion hoarding:

Some of the traders illegally create hoard onions in godowns and other places and create artificial scarcity in the market so they can gain benefit out of it. The traders take advantage of this shortage and increase their profits. They buy large quantities of commodities in post-harvest season and tighten the supply through hoarding in lean season of production. The 2013 price hike is one of the examples of onion crisis by artificial hoarding. The govt should be strict in this matter and should raid such godowns and confiscate the produce so that the price comes under control. Unlicensed traders should not practice any of the activity of marketing; the govt should look to it.

4. EXIM policy of onion:

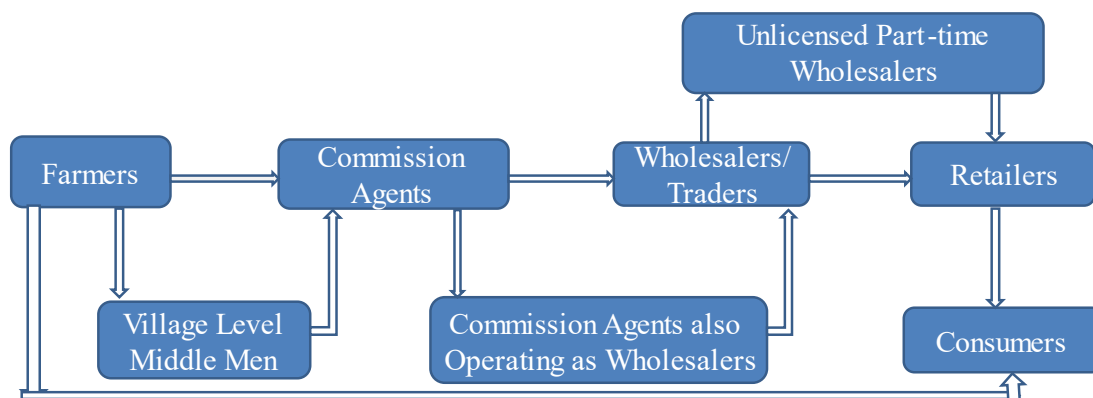
India is not a regular and reliable exporter of onion in the international markets. The Indian exports are highly volatile as compared to the global exports. The MEP is fixed arbitrarily. It is surprising to notice that the export share was higher in price shock years i.e., 2013 and 2015. The govt imposes ban on the export without proper assessment of supply in the domestic markets. E.g., the exports declined despite increase in the production; observed in the years 2005-06 2010-11 and 2013-14. There is a need to restructure the export import policy especially in case of onions so that we can reap the maximum benefit out of it.

12. MARKET STRUCTURE OF ONION IN INDIA:

The Country's onion market prices dictated by traders, has clear imperfections including cartelization and hoarding that impacts price of the agricultural commodity, a Competition Commission study has said. The farmers also lack in market knowledge, trading expertise, and the risk bearing capacity of small farmer is low. The local markets act as a reference for small farmers.

Even the market committees are dominated by traders which act for their own interest. There are also several barriers for new entry in the market, the supply chain is inefficient in case of onion and also the producer's share in consumer rupee is very less. There is Concentration of large storage capacities with traders. The onion associations are non-sustainable in nature.

SUPPLY CHAIN OF ONION:



The supply chain starts from producer and end with consumer. The tremendous gap in between retailer and wholesaler price because of the number of middlemen comes in between farmers to consumers. The middlemen procure the onion from farmers at wholesaler price and to add grading, processing and profit charge then sell in the market at higher price. The supply chain is play very crucial role in fluctuation onion prices in the market.

MARKET STRUCTURE OF ONION:

- Small holding of farmers.
- Marketing produce as per grade necessity.
- Local markets act as a reference market to small growers.
- Concentration of large storage capacities with traders.
- Existence of established traders and barrier to new entry.
- Less number of active traders during slack season.

- **Small holding of farmers:**

Land holding of onion growers is very low. Most of the farmers own less land and due to unfavorable weather conditions and need to spread price risk over a period after harvest even one big vehicle is not available with a single farmer field at a given time. Such small availability implies that the individual farmers have a little say in the final price of the onion in the market.

- **Marketing produce as per grade necessity:**

Different regions and markets of India have different requirements of Onion (while eastern India / Bangladesh etc. markets prefer small sized onion, North and West Indian markets prefer market and growth oriented. It enables producers to undertake market-driven production planning, facilitate integration of farm production with domestic and global markets and attract massive investments for building up post-harvest infrastructure. Bigger sized onion). Traders buy small lots from the market yards and pool the produce for sorting / grading at their pack houses and sends different grades to different markets all over India depending upon the grade requirements and price at a particular market. Lack of trading expertise, market knowledge and risk bearing capacity has prevented most of the farmers to make a significant dent in onion trading. So, most of the trading is in private hands.

- **Local markets act as a reference market to small growers:**

Farmers generally take reference of the local markets' rates, while traders compare rates of all markets, including major distant and export market and then decide where to send their produce of a particular grade. This brings greater profits to them.

- **Non-sustainability of exclusive onion Associations:**

Because of various agroclimatic reasons, onion belt is in actually a scattered chunk of large number of smaller sub belts. For a particular distant market, for example Delhi or Bangalore, most of these sub belts are active for a short period as far as fresh onion flows are concerned. Active period in some cases is only a fortnight or a month. Because of this reason, exclusive onion associations (farmers associations, cooperatives) have not been successful as short period of business cannot sustain their yearlong expenses.

- **Concentration of large storage capacities with traders.**

For historical and financial reasons, large storage capacities for onion have remained with private traders and that too in Nasik belt. Traders can buy the whole stored lots and provide sorted / graded produce to retailers or buyers as per their requirement at their risk and cost.

- **Existence of established traders and barrier to new entry:**

In important onion markets, the commission agents and the traders dealing with onion are well established and have an average experience of 20 years. This shows the lack of new entries in the market as well as domination of the established market players.

- **Less number of Active traders during slack season:**

The numbers of active traders are significantly low during the slack season of the year in all the markets. In Gadag market- only one trader is active for three to four months' slack season, in Belgaum the number is ten to fifteen and so on. Such reduced number of traders creates an oligopolistic situation.

13. THE MARKETING SYSTEM: INSTITUTIONAL SUPPORT FOR MARKETING AND TRADE:

- Price Support Programme.
- Technological and Extension Support.
- External Trade Support.

Price Support Programme:

For onion, NAFED intervenes in the domestic marketing whenever there is glut in the market and prices reach uneconomical levels. Prices prevailing in major markets all over the country are reviewed every day in this process. Procurement prices of onion are decided by NAFED on the basis of cost of production and procurement is initiated in the markets and from the farmers directly.

This benefits the producers, particularly the small producers, who have low carrying capacity and are constrained to sell immediately after harvest on account of financial constraints. In case of external trade, NAFED is responsible for fixing the minimum export price (MEP) of onion in collaboration with DGFT (Director General of Foreign Trade), which is done on 15 to a monthly basis. Factors such as market trends, world prices and domestic prices, and margins are considered for arriving at the MEP of onion.

Technological and Extension Support:

A National Horticultural Research Development Foundation (NHRDF) has been set up by NAFED to undertake research on development of varieties of onion suitable for cultivation in different agro-climatic regions of the country as well as the development of suitable production practices. NAFED has also set up units for the production of bio-fertilizers and rhizobium culture. Seed and, at times, other critical inputs are provided to farmers by NAFED.

Seed production is undertaken by the NAFED sponsored National Horticultural Research Development Foundation and seed is sold by NAFED under its own name. Besides NAFED, other public research agencies are also involved in technology development and upgradation for onion. The technologies and package of practices developed are passed on to the producers through an extensive system of extension. Plant protection operations have also been undertaken to provide protection against pest and disease infestations. Technical knowhow is extended to farmers to improve production and productivity.

External Trade Support:

From 1974 to January 1999, the NAFED was the sole canalizing agency for external trade and exports of onion from India. In January 1999, the new export - import policy of the GOI introduced certain changes in the system of onion trade by including 13 State Trade Enterprises as canalizing agencies for onion trade. Some of them are: Maharashtra Agricultural Marketing Board, Gujarat Agro Industries Corporation, Karnataka State Cooperative Marketing Federation, Andhra Pradesh Marketing Federation, etc.

The government also allowed other agencies to enter in canalized exports of onion with the reasons not want any agency to acquire a monopoly position in this respect and also to facilitate the easy procurement, distribution and exports of the commodity from the widely distributed producing centers of the country. However, NAFED continues to be a monitoring agency as it shares around 50 of the total quantity exported.

Each canalizing agency is allocated a quota for exports and inter-ministerial group comprising representative of ministries of Commerce, Consumer Affairs and Agriculture and NAFED decide the quotas for exports. NAFED has set up modern state-of-the-art storage facilities in Maharashtra, Gujarat and Tamil Nadu near its major procurement centers.

Onion requires storage facilities that require sufficient inflow of fresh air. Consignments are packed in hessian bags which allow air to pass through. Export consignments meant for long distance are transported by NAFED's associated shippers in specially equipped sea vessels in which air is blown in storage areas through fans and blowers.

STEPS TAKEN BY THE GOVERNMENT:

- **Ban on exports:**
- **Imposition of stock limit:**
- **Import:**
- **Operation Greens:**

- **Ban on exports:**

If at all export is promoted the government will impose temporary MEP (Minimum Export Price) on onion.

- **Imposition of stock limit:**

Reduced the stock holding limit for retailers and wholesalers to 5 tonnes and 25 tonnes and to avoid onion shortage in domestic market.

- **Import:**

Imported onions from Egypt, Afghanistan and Turkey to tame the prices. Transfer of onions from surplus to deficit areas.

- **Operation Greens:**

Government norms for Rs. 500 crores 'Operation Greens' scheme for Onion, Potato and Tomato in the year 2018-19.

14. OVERALL ONION CRISIS MANAGEMENT:

1. Production planning through geographical expansion-plan the production process well in advance and increase the area of cultivation, geographical diversification and distribution of the crop.
2. Expanding/ adjusting seasons-varieties should be developed such that they can be cultivated in various Agro-climatic conditions. Extending onion cultivation beyond present seasons. Onion crop has to be adjusted to have a continuous supply in the markets.
3. Stocking and distribution- Stabilization through stock by public sector agencies like NAFED. Strategies should be made to effectively design and implement the subsidy schemes for the storage structure.
4. Stabilisation through trade- Timely regulation of exports and imports. Facilitating exports during price fall situation and restriction of imports when the demand in the domestic market is high. Fixation of minimum export price with proper analysis. Import from neighbouring countries at lower prices
5. Proper utilization of price stabilization fund- The funds should be optimally utilized to minimize the price volatility. Maintain strategic buffer stocks and discourage hoarding and speculation.
6. Reforming APMC's – strengthen and reform APMC to avoid collusion and hoardings in the market.
7. Promoting direct sales-linking small farmers produce to retail chains.
8. Promote processing industry- India is far behind compared to most of southeast Asian countries in case of processing industry. On an average, one fourth of the produce must be processed. Worldwide market for dehydrated products such as rings, granules, powder, & processed product like onion oil, vinegar. Set up modern dehydration unit with backward integration with farmer

15. RESEARCH STUDIES:

1. STUDY 1: COMPETITIVE ASSESSMENT OF ONION MARKETS IN INDIA

Chengappa, *et al.*, (2012)

Research Area: Maharashtra and Karnataka

Sample size: 255

Asymmetric information has been one of the key concerns in the debate of market failure. And, farmers in particular have found themselves the biggest victim of this. Table 01 presents farmers awareness about marketing channels in Maharashtra and Karnataka. As observed in our field survey, about 94.6 per cent of the sample farmers in Maharashtra and 86.4 per cent in Karnataka were not aware about marketing channels in APMC and were also not aware of other options to sell their produce.

Table 01: Farmers Awareness about Marketing Channels in Maharashtra and Karnataka:

(n=225)

Markets	Awareness about Marketing Channels					
	Do not know	CA	CA and Wholesaler	CA, Wholesaler and retailer	Wholesaler, Retailer and Consume	Total
Maharashtra						
Ahmednagar	92	0	4	4	0	100(25)
Sangamner	92	4	0	0	4	100(25)
Yeola	100	0	0	0	0	100(25)
Lasalgaon/Pimpl	88	8	4	0	0	100(25)
Washi Mumbai	100	0	0	0	0	100(15)
Pune	100	0	0	0	0	100(15)
Average	94.62	2.31	1.54	0.77	0.77	100(130)
Karnataka						
Bangalore	80	0	12	0	0	100(25)
Belgaum	84	8	0	8	8	100(25)
Hubli	92	0	8	0	0	100(25)
Gadag	88	8	4	0	0	100(25)
Davangere	88	4	0	8	0	100(25)
Average	86.4	4	4.8	3.2	1.6	100(125)
Note: Figures in Parenthesis indicate sample; CA= Commission Agents						

Table 02: Farmers’ Suggestions to Get Higher Price for Produce/ to Reduce Margin the of Intermediaries in Maharashtra & Karnataka.

Markets	Farmers Suggestions to Get Higher Price for produce						
	No Suggest ions	Govt. should purchaser or help to sell and export onion	Govt. help getting price/ Min Rs.1000/- or above	Need to reduce the number of agents from market	Fertilizer Prices Should be reduced	Other*	Total
Maharashtra							
Ahmednagar	44	12	20	0	0	4	100
Sangamner	24	40	20	0	0	16	100
Yeola	40	07	20	4	0	29	100
Lasalgaon/Pimpl	32	20	33	4	4	7	100
Washi	12	40	28	0	20	0	100
Pune	36	36	28	0	0	0	100
Average	31	29	25	2	4	9	100
Karnataka							
Bangalore	28	42	30	0	0	0	100
Belgaum	12	58	30	0	0	0	100
Hubli	20	20	48	12	0	0	100
Gadag	12	12	53	12	4	7	100
Davangere	24	38	30	0	8	0	100
Average	19.2	34	38	4.8	2.4	16	100
Note - * indicate other suggestions selling directly to consumers and keeping prices constant							

Onion prices are subject to severe fluctuations. Sometimes glut in the market leads to highly unremunerative prices, while in certain year crop failure causes a significant price rise. Income of the farmers, therefore, fluctuates and remains quite unstable. In this background, we

asked sample farmers what they suggest if the government could help them to obtain competitive prices for their produce table02.

In our sample, on average about 54 per cent farmers in Maharashtra and 72 per cent in Karnataka felt that the government should purchase or help them in selling or exporting their onion or at least help them in getting a price of Rs.1000 per quintal. A number of farmers 25 per cent in Maharashtra and 38 per cent in Karnataka revealed that fixing a price at Rs 1000 per quintal would help them to cover their cost of production and earn a reasonable return on cultivation of onion.

2. STUDY 02: A STUDY ON MARKETING BEHAVIOUR OF ONION GROWERS IN CHITRADURGA DISTRICT OF KARNATAKA

Yashodhara, 2011,

Research Area: Chitradurga District of Karnataka

Sample size: 80

A Competition Commission of India has said that the farmers also lack in market knowledge, trading expertise, and the risk bearing capacity of small farmer is low.

The marketing problem faced by onion growers given highly response to fluctuation in market prices with 100.00 percent because of highly sessional onion production. 97.50 percent farmers given response to high cost of transportation as well as every year onion storage loss occur 25-30% because of that 70.62 percent farmers given response to absence of storage facilities.

Table: Marketing problems faced by onion growers.**(n=80)**

Marketing problems.	Total scores	Mean scores	Percentage	Rank
Markets are far away	66	0.83	41.25	IV
High cost of transportation	156	1.95	97.50	II
Fluctuation in market price	160	2.0	100.0	I
High commission charges	25	0.312	15.62	IX
Delayed cash payment	13	0.162	8.12	XIV
Hamali changes are more	60	0.75	37.50	V
Faulty system of weighment	9	0.112	5.62	XV
Illegal deductions while selling	14	0.175	8.75	XII
Absence of storage facilities	113	1.412	70.62	III
No grading facilities	53	0.412	20.62	VII
Inadequate physical facilities in marketing	27	0.337	16.87	VIII
Prolonged transactions	21	0.262	13.12	X
Lack of market information	18	0.187	9.37	XII
Malpractices adopted in market	16	0.2	10.00	XI
Without involvement of middlemen/CA it's very difficult to sell onion in market	85	0.687	34.37	VI

16. CONCLUSION:

Government must encourage better systems for forecasting total production considering economic and meteorological events, at least in major onion producing areas that would help in taking appropriate decisions about onion export which in turn can avoid significant fluctuations in its prices in the wake of increasing international demand for Indian onion. Onion crisis is a cyclical phenomenon which is constantly reoccurring over the years. The government can do a lot if it wills, the only matters is the intention of the government. Thrust must be given to processing facilities so that consumers can quickly substitute onions for onion paste and dehydrated varieties in times of crunch.

17. DISCUSSION:

1. Which institution support for marketing and trade for onion ?

Answer :- 1. NAFED by Price Support Programme like procurement price of onion and export onion price. This benefits the producers, particularly the small producers, who have low carrying capacity and are constrained to sell immediately after harvest on account of financial constraints. 2. NHRDF for research and development of onion advance varieties.

2. What is the extension person role in onion crisis management?

Answer :- Whatever the modern varieties of onion should be reach in farmers field by effective way and to survive crisis area and that data hand over to government for future management.

3. What are the export varieties to more demand in international market?

Answer :- The major export varieties found in India are Agrifound Dark Red, Agrifound Light Red, NHRDF Red, Agrifound White, Agrifound Rose and Agrifound Red, Pusa Ratnar, Pusa Red, Pusa White Round. There are certain varieties in yellow onion which are suitable for export in European countries Tana F1, Arad-H, Suprex, Granex 55, HA 60 and Granex 429.

4. Is there Minimum Support Price for onion crop? How to decide Minimum Export Price?

Answer :- No! Minimum Support Price only for food crops (pulses) and Minimum Export Price decided by NAFED is responsible for fixing the minimum export price (MEP) of onion in collaboration with DGFT (Director General of Foreign Trade), which is done on 15 to a monthly basis.

5. What is the difference between Procurement Onion Price and Export Onion Price?

Answer :- Export Onion Price decide on the basis of factors such as market trends, world prices and domestic prices, and margins are considered for arriving at the MEP of onion. And Procurement Onion Price on the basis of cost of production and procurement is initiated in the markets and from the farmers directly.

6. Shelf life of kharif and rabi onion?

Answer :- The shelf life of the onions cultivated in kharif and late kharif is only up to 6-8 weeks, whereas the shelf life of rabi onion is of about almost 6 months and approximately forty percent of onion kharif twenty percent and late kharif twenty percent is produced in first two seasons and remaining 60 percent is produced in rabi season.

7. Is there any intercropping with onion?

Answer :- Generally farmers grow cabbage and onion intercropping. Mostly onion crop should take as monocrop.

8. Why India lacking beyond in the onion productivity?

Answer :- India don't has that much advance technology with compare other countries as well as unpredictable weather condition in India and lots of fragmentation of land.

9. How many cold storage in India?

Answer :- 8186 cold storage in India and U.P. stand first with 1817 cold storage facilities.

10. Why Indian onion more demand in international onion market?

Answer :- India is the second largest onion growing country in the world. Indian onions are famous for their pungency and are available round the year. Indian onions have two crop cycles, first harvesting starts in November to January and the second harvesting from January to May.

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ID No: PALB 9028
Class: II Ph. D.

Date: 19/12/2020
Time: 10:30 AM
Venue: Dwarkinath Hall

I Seminar on
Onion Crisis in India - Issues and Market Structure
Synopsis

Onion is one of the most significant and commonly used ingredients in Indian recipe. Onion is unique, highly profitable but price is not determined by its availability. An increase in price affects the consumer by way of increase in food consumption budget, while a decrease in price below the cost of cultivation affects the producer. Thus, the changes in onion prices have a huge impact on the food security of farmer and consumer welfare. Agricultural commodities are less elastic to price and income and inherently unstable due to weather and institutional risks. The high volatility in prices of agricultural commodities can have a disproportionate, typically nonlinear or asymmetric impact on the economy and may fail to endure exceptional shocks. This impact is prominent if governments and households are well adapted to normal volatility but fail to anticipate or consider making worthwhile provisions against extreme shocks. The spurt in food inflation in the recent months has brought to forefront some critical issues of price volatility in agricultural commodities and agricultural market structures. With this background, the present study is conceptualized with the following objectives:

4. To know about the onion production scenario.
5. To know about the onion crisis causing issues and market structure in India.
6. To review the related studies.

Onion production scenario: The total global area under onion cultivation is 9.2 million acres, total production in the was 97.86 MT and the average yield was about 18.82 T/ha. India is second after China accounting for 19 per cent of the global onion production. In India onion is cultivated in an area of 12.93 lakh hectares with the production of 236.10 lakh tonnes and productivity is 18.3 T/ha during the year 2018-19. India is a traditional exporter of fresh onions. The demand for Indian onions in the world is high. During the year 2018-19 India exported 21.83 lakh tonnes and imported about 324 tonnes of onion. (*Anonymous, 2019*).

Onion crisis: Onion crisis is referred as high rise in onion prices, shortfall in production, improper storage, unplanned exports etc. India has seen rampant onion crisis over the years in 1998, 2010, 2013, 2015 and 2019. The main reason for onion crisis 1998 was due to unplanned exports. The 2010 crisis caused by errant rainfall in the onion producing regions which led to the shortage of onion production. Main cause of 2013 crisis was due to artificial hoarding by traders. The 2015 crisis was due to deficit rains. The reason behind the fresh hike in onion prices in 2019 can be attributed to higher wholesale rates triggered by unseasonal rainfall in Karnataka, Gujarat and Maharashtra, the largest onion growing states in the country.

The 2020 crisis was due to COVID-infused lockdown and heavy rain. The prolonged monsoon in onion growing district Maharashtra, Karnataka, and Madhya Pradesh led to widespread crop damage. It led to the loss of nearly a million tonnes kharif onion in Maharashtra alone. (Mahapatra and Shagun, 2020)

Government initiatives to overcome onion crisis: Different steps taken by the government were ban on exports, imposition of stock limit, importing onions from other countries, transfer of onions from surplus to deficit areas and government okays norms for Rs. 500 crores 'Operation Greens' scheme for onion, potato and tomato in the year 2018-19. About 25-30 per cent of total production is wasted, so building up of cold storage unit would minimize the waste up to 3 to 4 per cent that in turn can help the onion growers and stabilize onion prices in market.

Issues leading to onion crisis: Onion hoarding, seasonality in production and short shelf life, onion storage structures, export-import policy and market structure of onion.

Market structure of onion: includes (i) Various market players and nature of market at each stage of the supply chain of onion and reasons for volatility and price fluctuations: Non-sustainability of exclusive onion association, concentration of large storage capacities with traders.

Review of the research studies:

Yashodhara (2011) reported that major problems faced by onion growers were fluctuation of market price (100 %) followed by high transportation cost (97.50%) and absence of storage facilities (70.62 %).

Chengappa *et al.*, (2012) reported that about 94.62 per cent farmers in Maharashtra and 86.4 per cent in Karnataka farmers do not awareness about marketing channel. Further 25 per cent in Maharashtra and 38 per cent in Karnataka revealed that fixing a price at Rs 1000/Qtl help farmers to cover their cost of production and earn a reasonable return on onion cultivation.

Conclusion: Government must encourage better systems for forecasting total production considering economic and meteorological events, at least in major onion producing areas that would help in taking appropriate decisions about onion export which in turn can avoid significant fluctuations in its prices in the wake of increasing international demand for Indian onion.

Thrust must be given to processing facilities so that consumers can quickly substitute onions for onion paste and dehydrated varieties in times of crunch.

Reference:

ANONYMOUS, 2019, www.faostat.org

CHENGAPPA, P. G., MANJUNATHA, A. V., VIKAS DIMBLE AND KHALIL SHAH, 2012, Competitive assessment of Onion markets in India, Institute for Social and Economic Change (ISEC) report, Nagarabhavi, Bangalore.

MAHAPATRA AND SHAGUN, 2020, I'M Onion: A Biography, *Down to Earth*, Oct., p. 28-37.

YASHODHARA, 2011, A study on marketing behaviour of onion growers in Chitradurga district of Karnataka, *M. Sc. (Agri) Thesis* University Agriculture Sciences Bangalore.

19. PRESENTATION SLIDES:



Flow of Presentation

Introduction

Global onion production

Onion production in India

Exports and imports

Onion price volatility

Onion crisis over years

Research study

Conclusion

2

Introduction

- Onion known as the bulb onion or common onion, is a vegetable that is the most widely cultivated species of the genus *Allium*.
- It is widely cultivated second only to Tomato. (FAO, 2012).
- It is commonly known as “**Queen of the kitchen**” due to its highly valued flavor, aroma, and unique taste, and the medicinal properties of its flavor compounds (Selvaraj, 1976; Griffiths 2002).

3

Objectives:

1. To know about the onion production scenario

2. To know the issues and market structure in India

3. To review the related studies

4

Global Onion Production

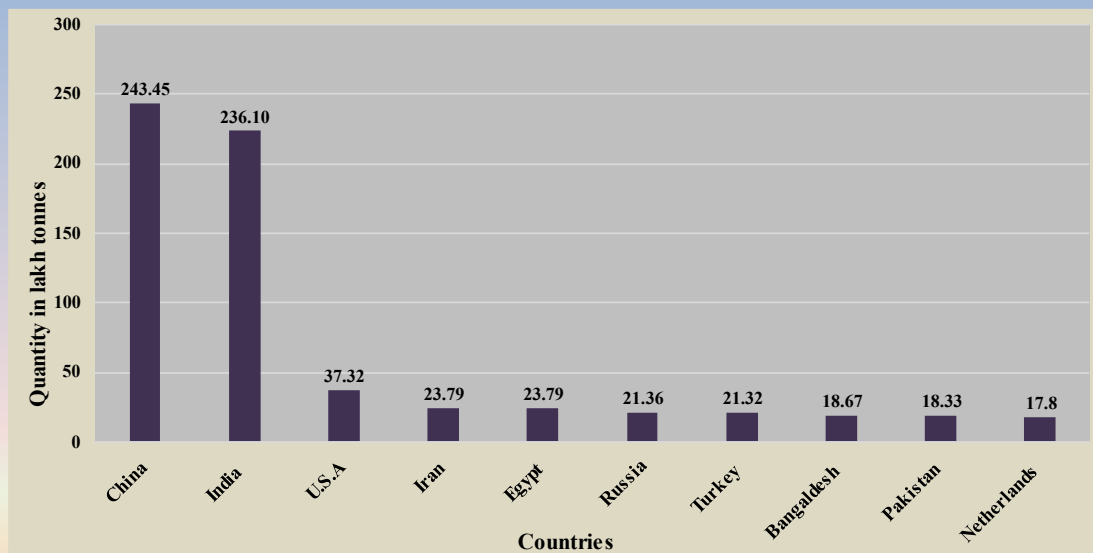
- There are total 170 countries in the World that grows onions.
- The total onion production in the World in 2018 was **97.86** million tonnes, which was harvested in the area of **9.2** million acres, and the average yield was about **18.82** T/ha (faostat.org).
- China is the leading country in Onion production in the World, with production of 24.34 million tones(24.87% of total world production) in an area of 11.02 lakh ha, with a productivity of 22.1 T/ha in 2019.



Source: Faostat.org

5

Fig : Top 10 onion producing countries in the world during 2019



Source: Faostat.org

6

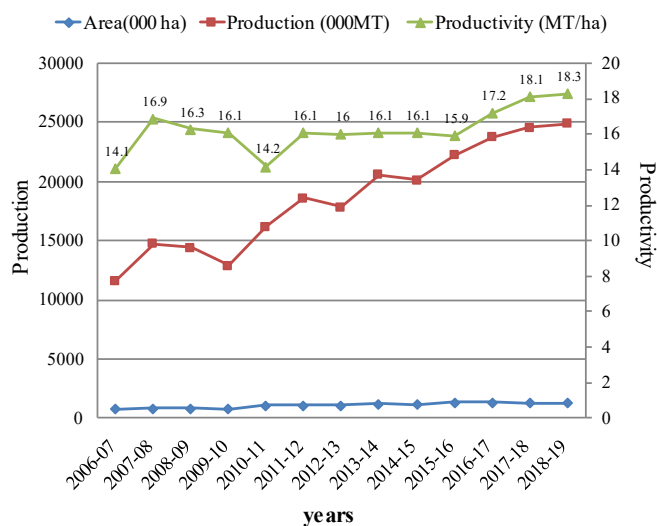
Onion Production In India

- India stands second in the production of onion.
- In India onion is cultivated in an area of **12.93** lakh hectares with the production of **236.10** lakh tonnes.
- The productivity of onion is **18.3** T/ha during the year 2018-19.
- In India the major Onion producing states are Maharashtra, Karnataka, Madhya Pradesh, Rajasthan, Gujarat, Bihar, Andhra Pradesh, Haryana, West Bengal, Uttar Pradesh and Chhattisgarh.

7

Fig : Area, Production and Productivity of onion in India over the years (2006 -2019)

Year	Area (000 ha)	Production (000MT)	Productivity (T/ha)
2006-07	767.9	10847.4	14.1
2007-08	821.0	13900.4	16.9
2008-09	834.2	13564.5	16.3
2009-10	756.2	12158.8	16.1
2010-11	1063.8	15117.7	14.2
2011-12	1087.2	17511.1	16.1
2012-13	1051.5	16813.0	16.0
2013-14	1203.6	19401.7	16.1
2014-15	1173.3	18927.4	16.1
2015-16	1320.0	20931.0	15.9
2016-17	1306.0	22427.0	17.2
2017-18	1285.0	23262.0	18.1
2018-19	1293.0	23610.0	18.3



Source :www.indiastat

8

Table : Top 10 Onion producing states of India during the year 2019

States	Area ('000 ha)	In %	Production ('000 MT)	In %	Avg Yield (T/ha)
Maharashtra	507.96	39.5	8474.73	35.8	17.43
M. P	150.87	11.7	3725.21	15.7	24.53
Karnataka	195.28	15.2	3076.19	13.0	15.29
Bihar	53.77	4.2	1302.86	5.5	23.07
Rajasthan	64.76	5.0	1073.01	4.5	15.39
Andhra Pradesh	42.00	3.3	994.07	4.2	21.80
Haryana	29.93	2.3	908.83	3.8	23.44
West Bengal	35.20	2.7	638.38	2.7	18.00
Gujarat	22.49	1.8	540.67	2.3	24.29
U. P	26.85	2.1	440.38	1.8	16.37
Others	155.89	12.1	2346.63	9.9	15.655
Total	1293.00		23610.01		18.10



Source: NHRDF

9

Table : Details of Catchment Areas for Onion Markets in Leading States

States	Districts (Market)	Blocks
Maharashtra	Nasik	Kalvan, Peint, Igatpuri, Sinnar, Niphad, Yeola, Nandgaon, Satara, Furgana, Dindori, Melgaon,
	Ahmednagar	Srirampur, Sanganner, Akola, Rahuri, Nevasa, Pamer, Pathardi, Srigonda, Karjat
	Pune	Junnar, Ambegaon, Ghod, Rajgurunagar, Wadgaonsirur, Mulshi, Welhe, Purandhar, Bhor, Baramati, Indapur, Daund, Sasw
Karnataka	Sholapur	Karmala, Barsi, Madha, Mohol, Mangalwedha, Singole, Malsiras, Pandharpur, Akalko
	Hubbali	Dharwad, Kundgol, Navalgund, Yadwad, Kalghatgi, Kargod, Kamdali
	Bagalkot	Jamkhandi, Mudhol, Hungund, Badami.
Andhra Pradesh	Chitradurga	Challikere, Malkajmur, Hiriyur, Hosadurga, Holalkere,
	Kurnool	Emmiganuru, Kappagala, Alur, Adoni, Atmakur, Pattikonda, Dhoni, Koilkuntla, Banganpalli, Allagadda
	Mehboobnagar	Kollur, Keshampat, Mughalgidda, Kamul, Wanparti, Atmakur, Gadwall, Alampur, Kolhapur, Achampet, Kondangol
Uttar Pradesh	Rangareddy	Marpali, Vikarabad, Tandur, Pargi, Ibranimpatan, Shahabad, Doma, Maisaram, Miryan, Nancherla
	Varanasi	Sindhora, Babatpur, Phulpur, Cholaipur, Mirzaurad
	Kanpur	Bithur, Maharajpur, Narwal, Sarsaul, Bindhu, Bhimsar
Tamil Nadu	Lucknow	Mal, Rahimabad, Bhauli, Itaunja, Mahoma, Nagram, Nigohan, Sisendi, Bijnaur, Utrahthia, Gosaingan, Jugganar, Chanhat, Bani, Alamnagar, Kakori, Bhauli
	Coimbatore	Muttupalaiyam, Avinashj, Tiruppur, Palladam, Udumallaipettai, Pollachi, Valparai.
	Thiruchirappalli	Manachanalur, Musili, Thothiyam, Lalgudi, Turayur, Manapprai, Srirangam
Gujarat	Bhavnagar	Botad, Valbhipur, Umrala, Gadhda, Gariadhar, Palitana, Mandir, Ningara

Source: APEDA

10

Exports of Indian onions

❑ **Facts and Figures:** There is a lot of demand for Indian Onions in the world.

❑ India has exported **21.83 lakh Tones** of fresh Onions worth of Rs. 3468.83 crores during 2018-19.

❑ **Major Export Destinations (2018-19):**

Bangladesh, Malaysia, UAE, Sri Lanka, Nepal, Saudi Arab, Kuwait, Qatar, Oman, Indonesia.

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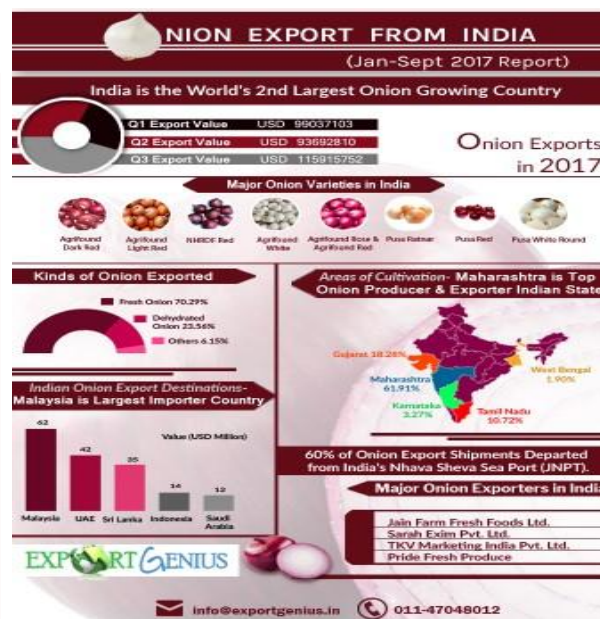
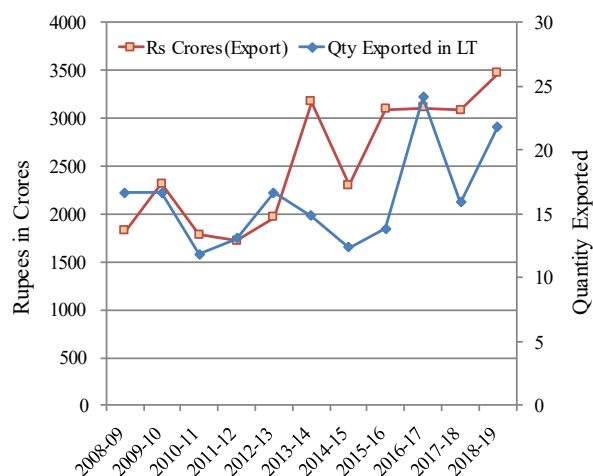


Figure : India's export trend from 2008 -19

Year	Qty in LT	Rs Crores
2008-09	16.69	1825.63
2009-10	16.65	2319.41
2010-11	11.82	1779.31
2011-12	13.10	1723.03
2012-13	16.67	1966.67
2013-14	14.83	3169.63
2014-15	12.38	2300.57
2015-16	13.83	3097.19
2016-17	24.16	3106.08
2017-18	15.88	3088.79
2018-19	21.84	3468.83



Source: APEDA

12

Onion imports

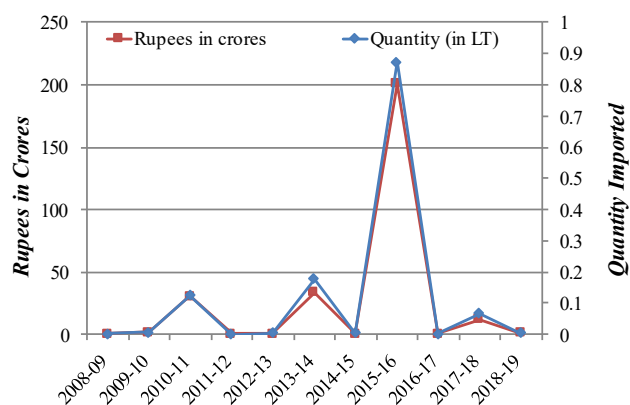
- In the year 2018-19, India had imported about **324 tonnes** of onion.
- Major Countries from which onion is imported:
Egypt, Afghanistan, China, Iran, Pakistan, Turkey, Ukraine.



13

Figure : India's import trend from (2008-19) Years

Year	Qty in LT	Rs in crores
2008-09	0.00089	0.07
2009-10	0.00629	1.35
2010-11	0.12506	30.71
2011-12	0.00012	0.07
2012-13	0.00450	0.3
2013-14	0.17843	33.3
2014-15	0.00386	0.64
2015-16	0.87323	201.13
2016-17	0.00086	0.21
2017-18	0.06592	11.88
2018-19	0.00324	0.8



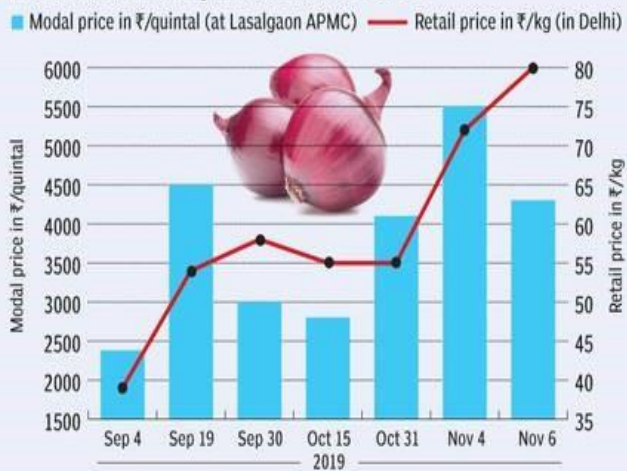
Source: APEDA

14

Onion Price Volatility

- Onion is one of the most market sensitive commodities that creates ripples in the trade as also political circles.
- High price variability in case of primary products affects both producers as well as consumers through a spill over effect to the other sectors, thereby leading to high inflation in the economy.

How the onion prices have moved



Source: NHRDF, Dept of Consumer Affairs

15

REASONS FOR ONION PRICES VOLATILITY

- Highly **seasonal production**
- Inadequacies of storage facilities**
- India severely **limits its onion imports**
- Production fluctuations and onions don't go to market in consistent quantities throughout the year
- Low shelf life of onions
- Involvement of various middle men and
- Unpredictable weather like heavy rainfall, heatwave, droughts etc.



16

To avoid price volatile situation are:

- Better system for forecasting total production considering economic and meteorological events, at least in major onion producing areas.
- This would help in taking appropriate decisions about onion export which in turn can avoid significant fluctuations in its prices in the wake of increasing international demand for Indian onion.
- National market information system (prices observatory) for recording, disseminating and analyzing price data of onion for key markets in the country for better price transmissions to the actors involved in the supply chain.

17

Table : Monthly comparison of prices and arrivals of onion for the month of November in 2018 & 19

Sl. no	Centre name	Avg. WP in November 2018 Rs/Qtl	Avg. WP in November 2019 Rs/Qtl	Avg. Retail Price in November 2018 Rs/Qtl	Avg. Retail Price in November 2019 Rs/Qtl	Total Arrival in November 2018 QTY-MT	Total Arrival in November 2019 QTY- MT
1	Amritsar	1391	5207	2217	6932	6420	4710
2	Bhubuneshwar	1579	6124	1998	7353	5680	2980
3	Hyderabad	1526	6177	2668	7969	12290	13430
4	Jaipur	1217	3220	2165	4620	8548	149
5	Nasik	1280	3827	1720	4755	1160	3220
6	Shimla	1120	4168	2000	6680	815	282
7	Varanasi	1371	4742	2065	6192	6337	3658

Source: NHB

18

Table : Comparison of price and arrivals of onion in Bengaluru for the year 2019 and 2020

(Price in Rs/Qtl & Quantity in MT)

Month	Wholesale Avg.Price 2019	Retail Avg.Price 2019	Total Arrival 2019	Wholesale Avg.Price 2020	Retail Avg.Price 2020	Total Arrival 2020
January	545	1586	61363	3280	5500	39474
February	491	1035	50224	1966	3384	44473
March	646	1217	53392	1494	2638	46386
April	740	1405	48478	0	0	0
May	796	1513	45229	0	0	0
June	1123	1900	47577	850	1436	45336
July	1113	1859	52246	825	1400	14927
August	1577	2625	51765	1253	2087	26557
September	2620	3978	63188	0	0	0
October	2463	3825	139206	0	0	0
November	4771	8367	102924	0	0	0
December	7792	10604	50300	0	0	0

Source: NHB

Onion Crisis over the years

- **Crisis** : a time of intense difficulty or danger
- **Onion crisis** : there is no clear definition for onion crisis but it is referred as high rise in onion prices, shortfall in production, improper storage, unplanned exports etc. leads to imbalance in the economy.
- India has seen frequent onion crisis over the years as mentioned below;

In 1998
In 2010
In 2013
In 2015
In 2019
Now in 2020



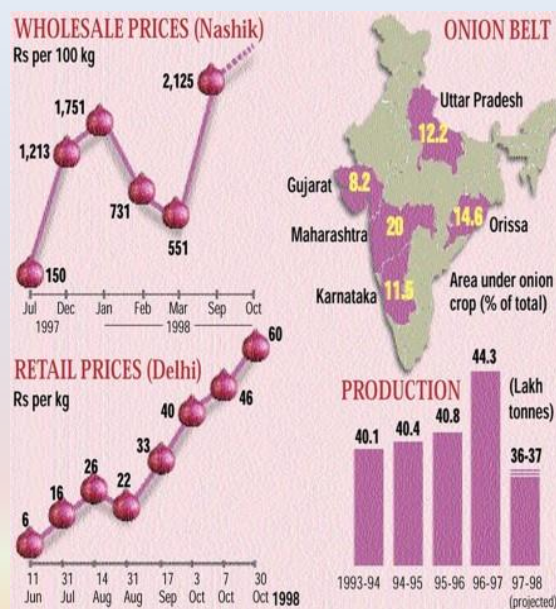
Onion Crisis 1998

- The main reason was due to **unplanned exports**.
- Between April and September the government exported as much as **2.05** lakh tonnes of onions through the National Agricultural Cooperative Marketing Federation of India (NAFED).
- Total production was **36.86** lakh tones, a **13.7 per cent drop** compared to the previous year i.e. **44 LT**.
- Prices shot up by as much as four times, which is described as a clear case of mismanagement of resources.

21

The roots of onion crisis are

- **January 1998:** Unseasonal rains caused prices rise from Rs.9-12 per kg to Rs 20-25 per kg.
- **March-July:**
 - Rabi crop affected by **heatwave**.
 - Prices climbed further, touching Rs 28 in August but Government ignored danger signals.
- **September:** Delay in Kharif harvest lead to shoot in prices.
- **October:**
 - Prices crossed the Rs 50 mark.
 - Government plans for imports.



Source : NHRDF 22

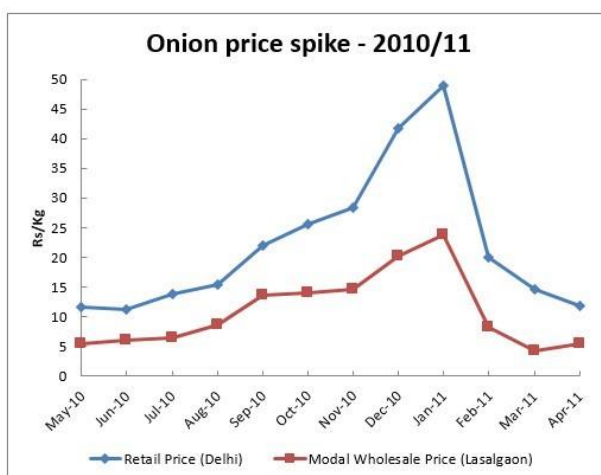
Onion Crisis 2010

- **Errant rainfall** led to a shortage of onion production.
- In November 2010, unseasonal and excessive rainfall in **Nashik** in Maharashtra **delayed the arrival** of onions in markets.
- In December, when fresh crop usually begins to arrive, onion shipments were reduced from 2000-3000 tons a day to 700-800 tons a day in New Delhi market.
- The govt responded to the increased price by banning the onion **exports**, lowering **import taxes** and by getting in shipments of onions from neighbouring Country Pakistan.

23

- Hoarding and official incompetence by traders have also been blamed for the crisis.
- The Retail traders in **New Delhi** charged a mark-up of over **135-150%**, taking in profits of over Rs-10,00,000 (US\$14,000) a day, which was called “**The Great Indian Onion Robbery.**”
- India imported around 12,563 MT of onions from Afghanistan & Egypt.

Fig : Onion price hike 2010 difference between retail and wholesale price

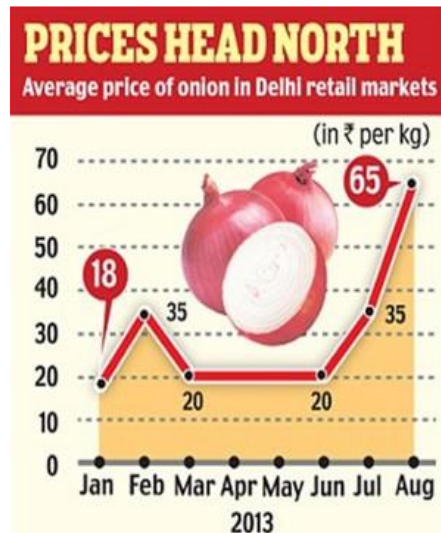


Source : NHRDF

24

Onion Crisis 2013

- Onion prices again hit the roof in Mumbai, Delhi and other major cities.
- In August the prices soared from Rs. 40 per kg to Rs. 60 per kg within a week, as rate of wholesale prices shot to of Rs. 5,500 per quintal from Rs. 1,500 per quintal
- Initially Govt blamed on, unusual late monsoon rains and hoarding by Traders.
- Gap in coordination between the demand and the supply-management chain triggered the problem.

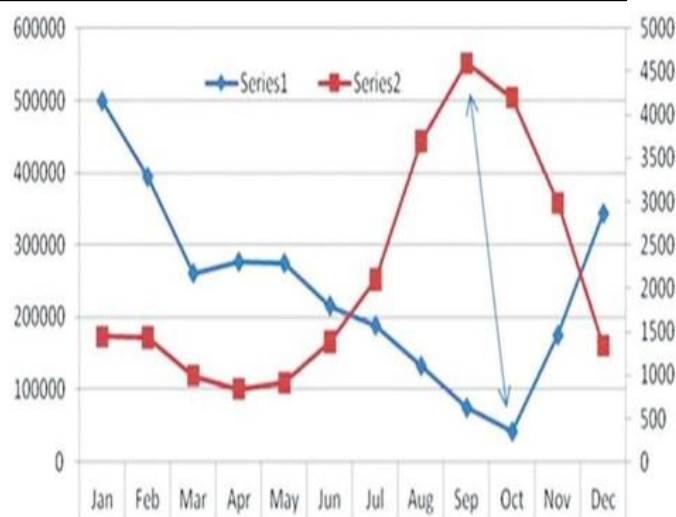


Source : NHRDF

25

Fig : Arrivals of onions (series-1) and prices (Series-2), quantity in quintals and prices in Rs/quintal for the year 2013

- In 2012-13 production was 168.16 LT of Onion
- But, market arrivals fell steeply 20-40% in July and Aug
- Later, it was found that Traders were creating artificial scarcity of onions to fetch larger profit.



Source : NHB

26

Onion crisis 2015

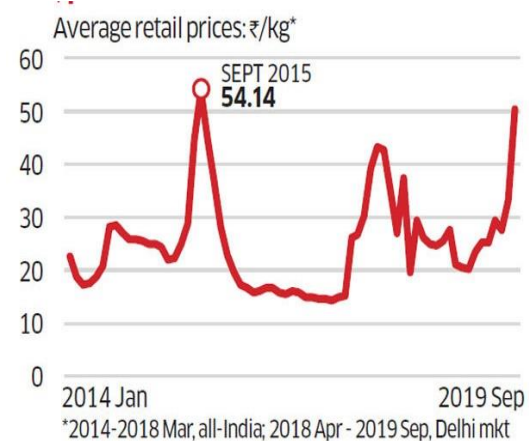
- The main reason was **deficit rains** in most parts of Maharashtra, north interior Karnataka and Andhra Pradesh, which has caused **delay in planting** of **Kharif onion**.
- Therefore the **supply remained under pressure** as arrival of fresh crop is expected to be delayed, which may put further pressure on prices.
- Onion prices at Lasalgaon wholesale market touched Rs 54 per kg due to tight supply of the crop.

27

- Total onion production is estimated to be at 189 lakh tonnes in 2014-15 crop year (July-June), slightly lower than 194 lakh tonnes, a year ago.
- India imported around **87,324 MT** of onions from Afghanistan, Egypt and Turkey, to meet out domestic consumption.

Source : NHRDF

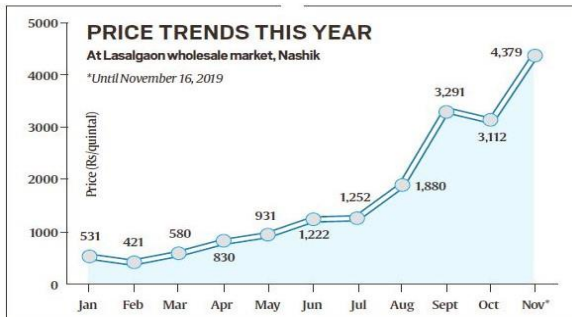
Fig : Average Retail prices of onions Rs/Kg for the year 2015.



28

Onion crisis 2019

- **CAUSE** : The major onion growing belt in India was severely affected by floods.
- The reason behind the fresh hike in onion prices can be attributed to higher wholesale rates triggered by heavy unseasonal rainfall in **Maharashtra, Karnataka and Gujarat**.
- There was a shortfall in onion production in Kharif (harvested after October) and late-kharif, hence severe shortage felt during SEPTEMBER-NOVEMBER.



Onion Retail Price Tracker

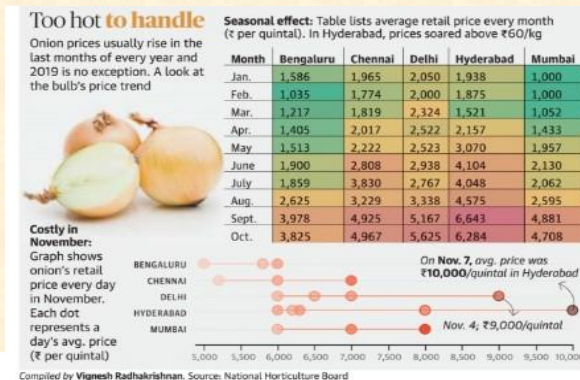
Compiled by Annapurani V
Dec 24, 2019
₹/ kg

5 cities where onion prices are the highest		5 cities where onion prices are the lowest	
Tirupati	150	Gwalior	48
Andhra Pradesh		Madhya Pradesh	
Itanagar	150	Jhansi	50
Arunachal Pradesh		Uttar Pradesh	
Port Blair	140	Sagar	60
Andaman and Nicobar		Madhya Pradesh	
Thrissur	135	Nashik	65
Kerala		Maharashtra	
Imphal	130	Indore	68
Manipur		Madhya Pradesh	

Source: Department of Consumer Affairs

Storage related causes :

- NAFED was to create a buffer stock of around 60,000 MT for the year, but they were only able to create a stock of 57,372 MT.
- NAFED stored its buffer stock of 57,372 MT onions using traditional methods. Over half of it got destroyed due to moisture & rain.



30

- **EFFECT** :

- The wholesale price of onions reached Rs 65 per kilo at the **Lasalgaon** APMC Mandi.
- Onion production is estimated to have decreased by **10** lakh tonnes this year, in comparison to last year's kharif season.
- It was to ease this pressure that the government decided to import of onions. In addition to this, the government also relaxed fumigation norms on onions for import



Onion crisis 2020

- The main reason was **COVID-infused lockdown and heavy rain**.
- The prolonged monsoon in onion growing districts of Maharashtra, Karnataka, and Madhya Pradesh led to widespread crop damage.
- It led to the loss of nearly a million tonne kharif onion in Maharashtra alone.
- The prices of onion have especially seen a spike by Rs. 11.56/kg taking the all-India retail price of the commodity to Rs. 51.95/kg.

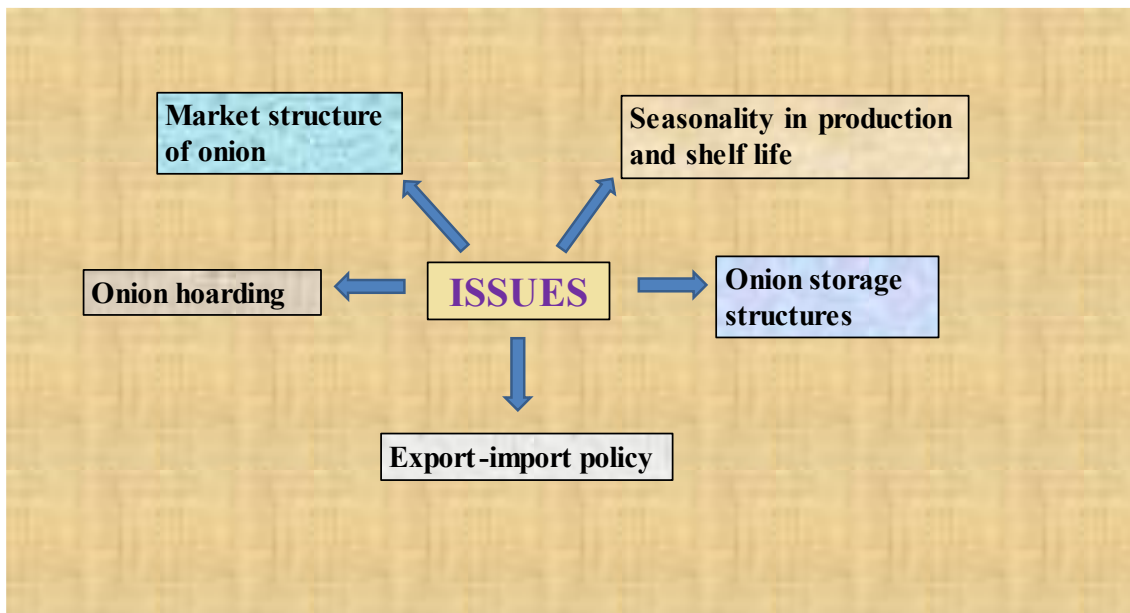


32

Measures taken by government:-

- The government had also taken a “pre-emptive measure” to announce a ban on onion export to ensure availability to the domestic consumers at reasonable rates during the lean season before the Kharif onion arrival.
- Importing onion from Afghanistan, Egypt and Turkey to meet out domestic consumption .
- The government has also relaxed “the conditions for fumigation and additional declaration on Phytosanitary Certificate (PSC).

33



34

Fig : Harvesting seasons of onion in different states

Seasonality in production and shelf life

Peak Season

35

Naturally ventilated



Bamboo storage



Onion storage

- High water content, it is delicate to store and requires special procedure and parameters, like Onion cold storage.
- The non-availability of appropriate post-harvest storage facilities, **25-30%** of the total produced onions are wasted, which in terms of Crores of rupees.
- Building up of the **cold storage** unit would minimize the waste up to the level of **3 to 4%** that would in turn help the onion growers, and stabilize onion prices in market for all types of consumers

Bottom and side ventilated



Cold storage structure



36

Onion hoarding

- Some traders **illegally hoard onions** in godowns and other places and **create artificial scarcity** in the market so they can gain benefit out of it.
- The traders take advantage of this shortage and **increase their profits**. The **2013 price hike** is one of the examples of onion crisis by artificial hoarding.



37

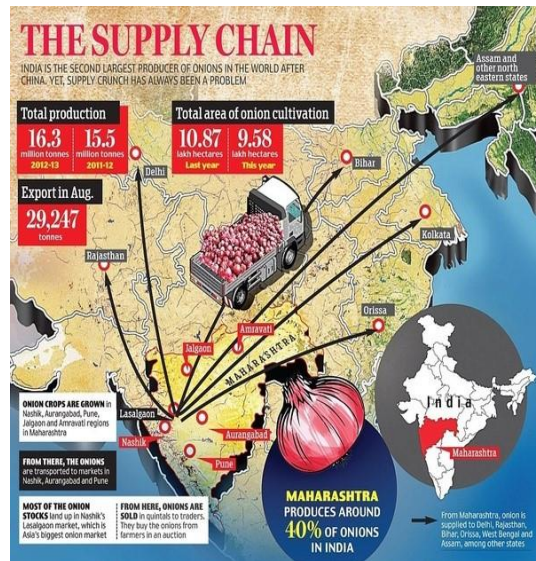
EXIM Policy

- India is **not a regular and reliable exporter of onion** in the international markets. The Indian exports are **highly volatile** as compared to the global exports.
- Every time onion prices soar Government imposes **Minimum Export Price (MEP)**, which deprives the farmer from benefits of onion exports.
- The govt imposes **ban on the export** without proper assessment of supply in the domestic markets. E.g. the exports declined despite increase in the production; observed in the year 2010-11.

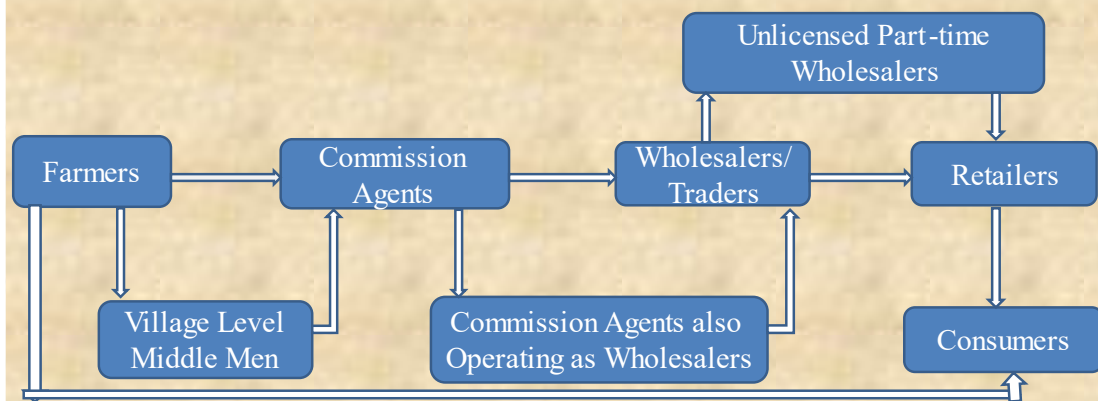
38

Market structure of onion

- A Competition Commission of India has said that the farmers also lack in **market knowledge, trading expertise, and the risk bearing capacity of small farmer is low.**
- The Country's onion market, **dictated by traders**, has clear imperfections including **cartelisation and hoarding** that impacts price of the agricultural commodity.



Supply Chain of Onion



40

Market structure of onion

- Small holding of farmers.
- Marketing produce as per grade necessity.
- Local markets act as a reference market to small growers.
- Concentration of large storage capacities with traders.
- Existence of established traders and barrier to new entry.
- Less number of active traders during slack season.

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Steps taken by the Government:

- **Ban on exports:** If at all export is promoted the government will impose temporary MEP(Minimum Export Price) on onion.
- **Imposition of stock limit:** Reduced the stock holding limit for retailers and wholesalers to 5 tonnes and 25 tonnes.
- **Import :** Imported onions from Egypt, Afghanistan and Turkey to tame the prices.
- Transfer of onions from surplus to deficit areas.
- Government norms for Rs. 500 crore 'Operation Greens' scheme for Onion, Potato and Tomato in the year 2018-19.

42

Research Studies

1.COMPETITIVE ASSESSMENT OF ONION MARKETS IN INDIA

Chengappa, *et al.*, (2012)

Table Farmers Awareness about Marketing Channels in Maharashtra and Karnataka

Markets	Awareness about Marketing Channels					
	Do not know	CA	CA and Wholesaler	CA, Wholesaler and retailer	Wholesaler, Retailer and Consumer	Total
Maharashtra						
Ahmednagar	92	0	4	4	0	100 (25)
Sangamner	92	4	0	0	4	100 (25)
Yeola	100	0	0	0	0	100 (25)
Lasalgaon/Pimpl	88	8	4	0	0	100 (25)
Washi Mumbai)	100	0	0	0	0	100 (15)
Pune	100	0	0	0	0	100 (15)
Average	94.62	2.31	1.54	0.77	0.77	100 (130)
Karnataka						
Bangalore	80	0	12	8	0	100 (25)
Belgaum	84	8	0	0	8	100 (25)
Hubli	92	0	8	0	0	100 (25)
Gadag	88	8	4	0	0	100 (25)
Davangere	88	4	0	8	0	100 (25)
Average	86.4	4	4.8	3.2	1.6	100 (125)

Note: Figures in Parenthesis indicate sample; CA= Commission Agents

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Table Farmers' Suggestions to Get Higher Price for Produce/ to Reduce Margin the of Intermediaries in Maharashtra & Karnataka

n=80

	No Suggest ions	Govt. should purchaser or help to sell and export onion	Govt. help getting price/ Min Rs.1000/- or above	Need to reduce number of agents from market	Fertiliser Prices Should be reduced	Othe r*	Total
Maharashtra							
Ahmednagar	44	32	20	0	0	4	100
Sangamner	24	40	20	0	0	16	100
Yeola	40	7	20	4	0	29	100
Lasalgaon/Pim	32	20	33	4	4	7	100
Washi	12	40	28	0	20	0	100
Pune	36	36	28	0	0	0	100
Average	31	29	25	2	4	9	100
Karnataka							
Bangalore	28	42	30	0	0	0	100
Belgaum	12	58	30	0	0	0	100
Hubli	20	20	48	12	0	0	100
Gadag	12	12	53	12	4	7	100
Davangere	24	38	30	0	8	0	100
Average	19.2	34	38	4.8	2.4	1.6	100

Note - * indicate other suggestions selling directly to consumers and keeping prices constant

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2. A STUDY ON MARKETING BEHAVIOUR OF ONION GROWERS IN CHITRADURGA DISTRICT OF KARNATAKA

Yashodhara, 2011,

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Table :Marketing problems faced by onion growers.

(n=80)

Marketing problems.	Total scores	Mean scores	Percentage	Rank
Markets are far away	66	0.83	41.25	IV
High cost of transportation	156	1.95	97.50	II
Fluctuation in market price	160	2.0	100.0	I
High commission charges	25	0.312	15.62	IX
Delayed cash payment	13	0.162	8.12	XIV
Hamali charges are more	60	0.75	37.50	V
Faulty system of weighing	9	0.112	5.62	XV
Illegal deductions while selling	14	0.175	8.75	XII
Absence of storage facilities	113	1.412	70.62	III
No grading facilities	53	0.412	20.62	VII
Inadequate physical facilities in marketing	27	0.337	16.87	VIII
Prolonged transactions	21	0.262	13.12	X
Lack of market information	18	0.187	9.37	XII
Malpractices adopted in market	16	0.2	10.00	XI
Without involvement of middlemen/CA its very difficult to sell onion in market	85	0.687	34.37	VI

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Conclusion

- About 25-30 per cent of total production is wasted, so building up of cold storage unit would minimize the waste upto 3 to 4 per cent that in turn can help the onion growers, and stabilize onion prices in market for all types of consumers .
- Large quantity of onions is procured by private firms, in order to reduce this crisis government procurement plays a main role.
- Increase the rate of processing of onions, so that consumers can quickly substitute onions for onion paste and dehydrated varieties in times of crunch.

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