

# Onion Productivity and Price Change Aspects in India: An Overview

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## ABSTRACT

*Allium Cepathae* scientific name of an onion. After potato Onion is the second most essential vegetable in our India. And also onions are very famous in all around the world. In India, the productivity of onion is about 13 lakh tons every month, and in the world, the onion productivity ratio is about 19.40 million. There are about 100 types of onion throughout the world and basically, India produces 9 types of major onion. Onion is very rich in vitamin C (12%) content and vitamin B-6 (5%) content and also rich in minerals like iron (1%) and calcium (2%). In the last 10 years, Maharashtra (4905.0 thousand tons) is the biggest onion producing state in India. But in 2019 onion prices overlap at Rs 10 kg from Rs 100 kg as demand loss will take place. A huge amount of wastage of onion takes place every year due to bad Monsoon, transport system and the amount of wastage is nearly 25% of the total production. In 10 years a remarkable increase in the production of onion in India and also an increase in the area about 768,000 ha to 1064,000 ha. Onion production has been several benefits like it reduces our cholesterol level, fights against inflammation, decreases triglycerides and it contains a high amount of antioxidants. The impact of onion production on the Indian economy, an increase of onion productivity, price drop, Government policies related to onion production also have been focused on in this review.

**KEYWORDS:** Onion production, government export policies, Wholesale price, Price change, Storage of onion

## I. INTRODUCTION

Onion is the second largest production crop in India and also all over the world [1]. The best season for onion production in India is August October, and for hilly areas, the best time for onion production is September to December [2].

Throughout the world, China is the most onion producing country and produces 20507.76MT onions whereas India produced 15118.00MT onions per year. Maharashtra is the best onion producing state in India, produced 8474.73 thousand tons of onion per year. But As per the current report onion is expected to be 20% less in

the country and also a reduction of 42% expected in Maharashtra due to bad climate conditions [3].

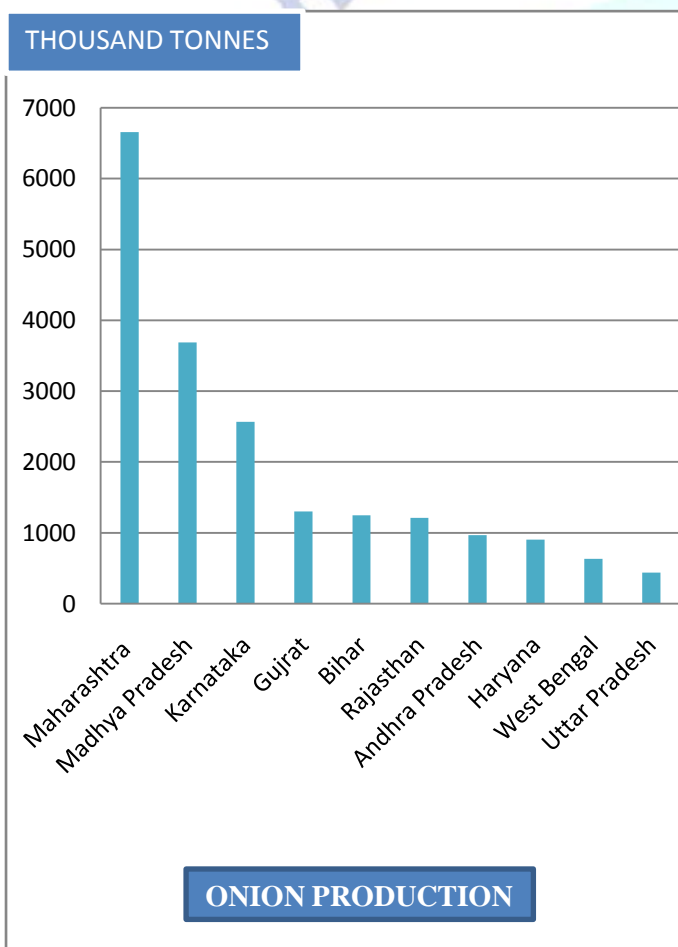
The average wholesale cost of onion in India is 1280.32 Rs/quintal. And a total of 15.89 lakh MT Onion is exported in 2018 and in 2019 the export structure is 15.22 lakh MT [4,7,9]

Besides production argumentation, there are several policy tools available to arrest the increasing prices such as the withdrawal Of Merchandise Export Incentive scheme (MEIS) the rewards under MEIS mostly in form of transferable duty credit scripts and to encourage exports and curb free fall in prices for Onion at home, the MEIS

scheme for Onion first introduced in February 2018 when the onion price had fallen to Rs 1 per kg an upsurge in supply but it has now been withdrawn. Except for this, there had export policy-related onion production[5].

In the last 10 years, most onion producing States are Maharashtra, Karnataka (2592.2 thousand tons), Madhya Pradesh (1021.5 thousand tons), Bihar(1082.0 thousand tons ), Gujarat (1514.1 thousand tons ), Andhra Pradesh (812.6 thousand tons)[6].

## II. STATE-WISE PRODUCTION IN LAST 10 YEARS ONION PRODUCTION IN INDIA



**Figure 1:** Statewise average onion production in India [7]

From 2010 up to 2020 Maharashtra is the first onion producing state in India. In 2018 a total of 6656 thousand tonnes of onion were produced in Maharashtra and in 2017 the ratio of production was 6734.74 thousand tonnes so here is a little decrement in production compared to the previous year but an increment in the percentage of share in per year. Between 2013 -2016 the percentage of the share was 29.59, in 2019 the percentage becomes 30.48 and it is continuously increasing. The

second-largest onion producing state in India is Madhya Pradesh. In 2013 the production was 2985.73 thousand tonnes, in 2018 Production becomes 3687.90 thousand tonnes, a quite increment in onion production(Fig 1) [7,9].

Mainly 3 types of onion produced in India are Kharif, Late Kharif, Rabi. The harvesting period for Kharif is October – December, for late Kharif January -March is the best season and for harvesting Rabi, the best time is the end of March to May[8]. Rabi is the highest producing onion between them and last year it produced 141lakh tonnes of onion. The harvesting of Rabi onion is almost in all states except Uttar Pradesh and Bihar because their harvesting period is too early within 1 week [9,7].

But in 2019 a big onion crisis Hit in India onion prices had skyrocketed beyond Rs 150/kg, hitting highs of Rs 160-180 in winter and loss is about a few hundred crore rupees, also about thousand of metric tonnes of imported onions were rotten[10]. Over 260294 farmers including a woman (24.28%) are included with the onion Production all over India [11].

## III. INDIAN GOVT. POLICY ON ONION PRODUCTION IN LAST 10 YEARS (2010-2020)

In India, Onions are available throughout the year at a good price. India produces about 22.43 million tonnes of onion a year but consumers only about 15.5 million tonnes. Exports are necessary to maintain prices [12]. Besides production augmentation and also there are several policy tools available to arrest the increasing prices such as the withdrawal of the Merchandise Export Incentive Scheme (MEIS) build the buffer stock to intervene in case prices are starts rising abnormally, implementation of minimum export price, opening the export window for a limited period or quantity, a load of stock limit on wholesale traders and retailers and a complete ban on exports. To promote exports during the onion harvests, the government can stimulate exporters with popular the Merchandise Export Incentive Scheme (MEIS). The rewards under MEIS are mostly in the form of transferable duty credit scripts. For controlling the price of onion and export of the onion the MEIS scheme is for onions which were first introduced in February 2018 when the domestic onion price had fallen to Rs.1 per kg amid a better in supply and it has now been withdrawn. India is traditionally an onion-exporting country, earning massive foreign exchange. Banning onion exports is a large



measure. India imposed bans on export earlier too such as in 2010, 2014, 2017. Although this measure increases domestic availability such as it puts at risk India's dependability as a reliable global supplier of onions [13].

#### IV. CONCEPT OF ONION STORAGE POLICY

An important instrument of income stabilization is in the form of a production supply policy. The on-farm storage of summer crop in scientifically built structures and its release in non-harvesting seasons is expected to fetch remunerative prices for summer crop as well as transfer gains of storages directly to the farmers. The storage policy is expected to help in stabilizing the producer's income. But, it is observed that the majority of farmers (nearly 80 percent) are reluctant to opt for storage of the crop[14].

#### V. THE FARMER'S PERSPECTIVE ABOUT THE STORAGE OF ONIONS

Farmers are not certain about the price levels that they may fetch for the stored crop. Traditional storage practices result in substantial losses in stored onions. Nearly 80% of the farmers are dependent upon primitive and old storage Chawla. As a result of the high percentage of wastages during storage (nearly 40 to 50 percent), farmers find it difficult to cover the costs and they are reluctant to undertake storages [15].

Proper scientific storage structures developed by NRCOG, Rajgurunagar have shown that the storage losses could be reduced by 20 -30 percent. However, the benefits of improved storage structure could not be reaped by the majority of farmers due to the high cost of construction. The cost of construction is the main hurdle increasing the storage capacity of farmers. Proper scientifically built storing needs investment. For 25 tons of 'Kanda Chawla'(storage structure), total expenditure is Rs.1,48,066 and for a 50 tons structure, a total of Rs.2, 94,528 investments are needed construction cost of the onion storage structure is assumed Rs.6000/- per MT for the scheme. As per the scheme of MSAMB, there is the extent of Rs.1500/- per MT storage capacity will be given. But this subsidy appears very meager as compared to the cost of finance. For the construction of 50 tons of storage, with a total investment of Rs.300000 (rounded off), the farmer gets a subsidy of Rs.75000. The second important reason for avoiding the onion storages for their

immediate need for money for undertaking the next season's cultivation activities. But storing the produce on large scale is necessary from the point of serving the domestic markets as well as to become a reliable exporter in the world market. Large-scale storage is possible only when farmers themselves decide to store the produce and overcome the above-mentioned limitations and Measures should be adopted on the government level to help farmers financially to increase their capacity of storage[16].

#### VI. LAST 10 YEARS AVERAGE CHANGE IN WHOLESALE ONION PRICES IN INDIA

Date/Year	Policy
21.12.2010	Prohibition on export of all varieties of onion
10.02.2011	Exemption for export of Bangalore Rose onions
31.03.2011	Minimum export price of onions
09.09.2011	Ban on export of onions
2012	Minimum export price of onions
2013-2014	The new export policy of onions
07.04.2015	Reduction in minimum export price (MEP)
11.12.2015	Revision in minimum export price (MEP)
27.06.2017	Supply of essential commodities to the Republic of Maldives during 2017-2018
23.11.2017	The imposition of the minimum export price (MEP)
2019-2020	Amendment in export policy of Onions

Table 1: emphasize export policy in the last 10 years (2010-2020) [16].

It is pretty obvious that depending on the export policy (Table-1) there was a change in the wholesale price of onion. In Bhopal, the wholesale of onion price over one year is Rs 83% per Quintal and retail price over one year is a loss of Rs 47% per Kilogram. In contradictory, in Pune, the wholesale price of onion over one year is Rs100% per Quintal and the retail price over one year is Rs 23% per KG. In Delhi, the wholesale price of onion over one year is Rs22% per Quintal and the retail price over one year is Rs 11% per KG. In Bangalore, the wholesale price of onion over one year is Rs 24% per Quintal

and the retail price over one year is Rs 100% per Kilogram. In Kolkata, the wholesale price of onion over one year is Rs 3% per Quintal and the retail price over one year is Rs 11% per Kilogram [17].

average wholesale price of onion is Rs 1685.5per Quintal. In January 2014 the monthly average wholesale price of onion is Rs 1791.3 per Quintal[18][19]. The retail average price of onion on 3<sup>rd</sup> December 2019 was Rs 81.9 per kilogram in comparison to Rs 15.87 per kilogram in March 2019 [20].

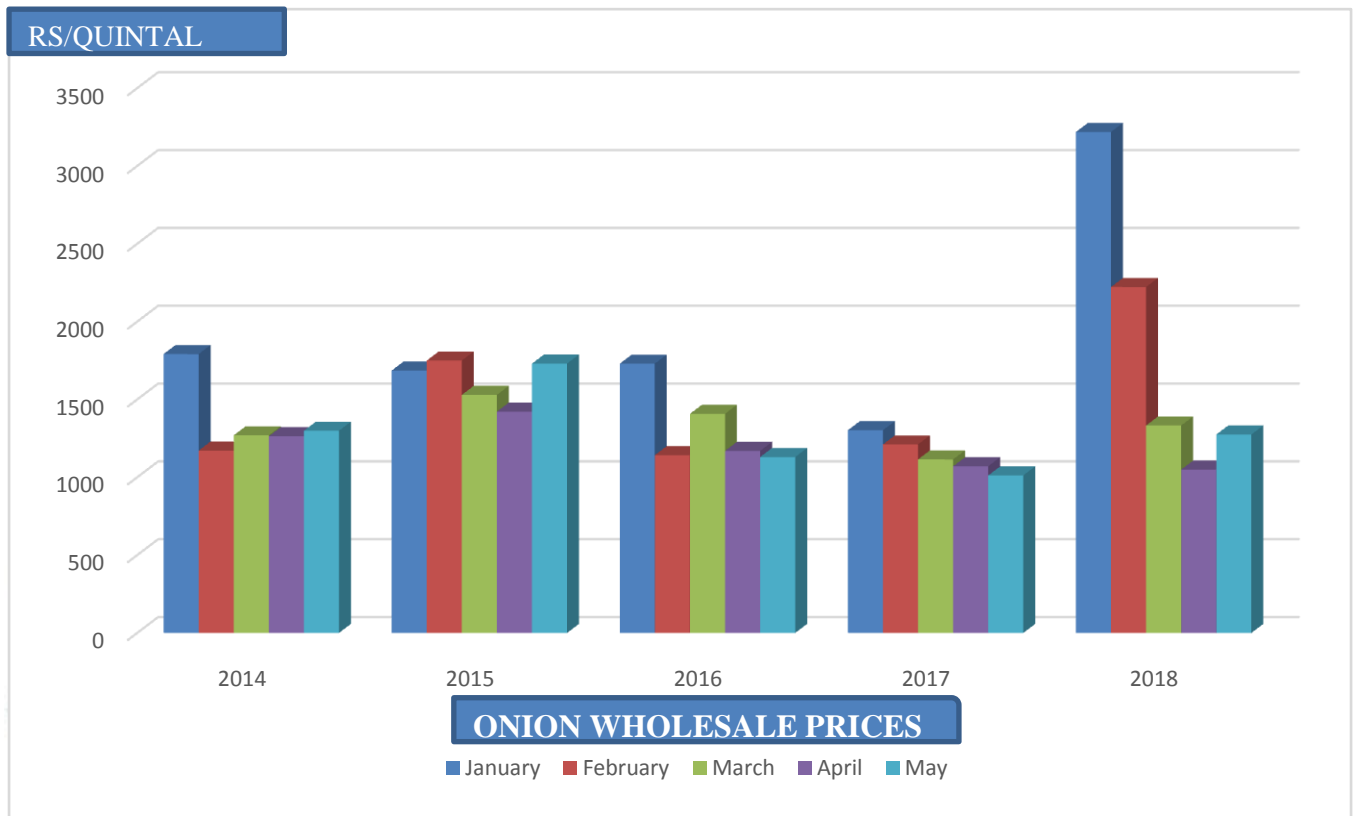


Figure 2: Variation in wholesale onion prices In India[18]

### VII. VARIATION IN MONTHLY AVERAGE WHOLESALE PRICES OF ONION

Figure 2 Represent - In January 2018 the monthly average wholesale price of onion is Rs 3218.3 per Quintal, in February 2018 the monthly wholesale price of onion is Rs 2222.2 per Quintal. In February the monthly average wholesale price of onion decrease from January. In March 2018 the monthly average wholesale price of onion is Rs 1332.8 per Quintal, in April the monthly wholesale price of onion is Rs 1049.3 per Quintal. There is a decrease in the monthly wholesale price of onion from January to April. In January 2017 the monthly average wholesale price of onion is Rs 1302.1 per Quintal, in February 2017 the monthly average wholesale price of onion is Rs 1210.7 per Quintal, in March 2017 the monthly average wholesale price of onion is Rs 1114.7 per Quintal. January 2016 the monthly average wholesale price of onion is Rs 1759.6 per Quintal, in February 2016 the monthly average wholesale price of onion is Rs 1142.6 per Quintal, in March 2016 the monthly average wholesale price of onion is Rs 1407.4 per Quintal. In January 2015 the monthly

### VIII. CONCLUSION

The review shows that the onion is the second largest and most important produced crop in India. A total of more than five million income is generated by onion cultivation. Onion is very good for human consumptions also and that's why onion is widely produced throughout the world. Maharashtra is the largest onion producing state in India. Per year total of 15118 .00 Metric Ton onion is produced all over India. But due to the poor transport system and bad weather, many onion crops are lost and this is the main loss in onion production. All Over India more than millions of farmers are including in onion production. In the last 10 years, the average wholesale price of onion was 1280.32 Rs/Quintal.

The wholesale price of onion in the last 10 years is quite less but in 2019 the wholesale price of onion is hit the market, the wholesale price of onion reaches 81.9 /kg in comparison with Rs 15.87/kg in March. And that's why a great onion crisis occurred in 2019. In India, several government

policies are build related to onion production for better production of onion and reduction of the minimum export price.

For reducing the loss in onion production maintaining the proper storage is very much important, that's why NRCOG has developed a modified storage structure that can reduce 20-30% loss in storage. Through, India a huge amount of income comes from onion production but still, huge wastage takes place every year and that's why improving storage quality is very much important for onion production.

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