

Enhancing the Pungency through "Pink Revolution" -Marketing of Onion in India

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Introduction

01 Agriculture occupies an important position in India. It contributes nearly 20% to the Gross Domestic Product [GDP] and provides employment to around two-thirds of nation's population. Agricultural commodity exports account for nearly 20 per cent of the total export earnings of the country. Among fresh vegetables, onion, tomato and mushroom are reported to be highly export competitive. India ranks first in the world accounting for around 21 per cent of the world area, planted to onion. Globally, the country occupies the second position, after China, in onion production with a production share of around 14 per cent. Productivity of onion is low at around 11.4 metric ton/ha, which is significantly lower than the world average of 17.3 metric ton/ha. Besides India and China, the other major onion-producing countries are Turkey, Pakistan, Iran, Japan, Brazil, United States of America and Spain. It is produced for both domestic consumption as well as exports. India produces all varieties of onion - pink, red, yellow and white, big or small.

02 To meet the food requirements of the increasing population several strategies have been adopted by our planners. Revolutions and special Missions helped to meet the needed requirements e.g., Green Revolution brought about self-sufficiency in wheat and rice, White Revolution helped India to become the largest producer of milk in the world, Yellow Revolution helped increase production of oilseeds, and the Blue Revolution resulted in high production and marketing of fish and marine products. In the same way, the Pink Revolution placed India on the world map for increasing productivity and production of onion in the country. Likewise National Horticulture Mission aims at enhancing the production of fruits and vegetables in the country.

03 Some of the horticulture products have 'political' potentials and overtones. They serve as bombshells and, at times, serve as handles to beat the political opponents with. Several mighty governments in the Asian region had to kiss the earth because there was shortage of onion [red onion, yellow or white or the Jaffna onion] and chillies [round Andhra variety or the long red chillies]. The ruling political parties in the region have always been conscious that at no time, especially during the political turmoil, there should be a shortage of onion, chillies and potatoes.

04 Some of the people who are engaged in political games, with the connivance of traders and hoarders, create road blocks in the supply chain of these so-called 'vulnerable' horticulture commodities. Farmers are often mislead, market prices are manipulated, and suppliers are often put to economic disadvantage to generate an artificial crisis with which to create an adverse reaction among the consumers and the general public. Several protests and rallies organised especially by housewives have been witnessed in some of the countries.

05 Farmers, the basic producers, are simple and honest people. Their main objective is to recover their investments and sell their produce at fair price. They do not have any other motive. They do not have the proper infrastructure to hold the perishable commodities until better times in the market. They cannot wait to dispose their products because they need money to prepare for the next crop. Politicians and traders relish playing with the sentiments of the farmers as well as of the consumers.

06 One key commodity which matters is the onion - white, yellow, red or any onion. This is the cousin brother of potato, and their younger sister is the chilly. All the three continue to remain in high demand whether it is in India, China, Indonesia, Thailand, Pakistan or in Sri Lanka. Farmers and traders are the main market players alongside the brokers and in association with government which lays policies and guidelines for distribution and export.

07 A bulk of onion production is consumed domestically. The surplus moves into two channels - processing and exports. There are several guidelines which are laid down by the government - a majority of them relate to exports and imports. In India, for instance, the main agency which is authorised to export onion is the National Agricultural Cooperative Marketing Federation of India [NAFED]. NAFED is also used by the government to stabilise the price line and to ensure a smooth supply of the commodity in the market. The NAFED is, therefore, in consultation with its affiliates and farmers' organisation, obliged to procure the commodity and hold the stock and evaluate how much of the commodity has to be released in the local market and how much of it can be exported.

08 In the Indian food onion is a prominent constituent. It is cooked along with the curry and also served fresh chopped into small pieces as salad. Some of the vegetarians do not eat it because of its pungency, odour and hot characteristics. Onion is known to have the properties to reduce cholesterol levels and strengthening heart functions. .

09 In India, onion is extensively cultivated in all seasons over a large area spread almost throughout the country. However, Karnataka, Maharashtra and Gujarat are the major onion-producing states accounting for about 60% of the area and production of onion in the country. Though the average productivity of onion in India is about 12 t/ha, it varies between 5 t/ha in Karnataka to 30 t/ha in Gujarat [Table-1]. There is scope to further increase the productivity at the national level.

Table-1: Statewise Area, Production and Productivity of Onion [2003-04]

State	Area '000 ha	Production '000t	Productivity t/ha
01 Andhra Pradesh	29.00	519.50	17.914
02 Gujarat	49.10	1479.30	30.128
03 Haryana	19.90	294.70	14.809
04 Karnataka	116.10	586.90	5.055
05 Madhya Pradesh	27.80	382.40	13.755
06 Maharashtra	110.50	1358.90	12.298

07 Orissa	3.70	30.90	8.351
08 Rajasthan	32.30	222.60	6.892
09 Tamil Nadu	23.50	211.20	8.987
10 Uttar Pradesh	21.20	245.80	11.594
11 Others	32.60	252.60	N.A.
India	465.70	5584.80	11.992

Source: Agricultural Statistics at a Glance 2005, Ministry of Agriculture, Govt. of India.

Impact of Globalization

10 Onion-growing has been one of the sectors hardest hit by the process of trade opening and globalization. It is now undergoing a crisis that jeopardizes the income and welfare of many Indian farm families. More than 90 per cent of the total holdings in the country comprise marginal, small and semi-medium holdings which together account for 55.6 per cent of the operated area. The decreasing size of operated area often diminishes the efficiency of production and the bargaining power of the individual farmers in the market. Onion-growing business brings in profits for producers, but these profits could be increased if onion-growers were part of a better organized market, removing a number of distortions such as: lack of transparency in supply management and at wholesaler level, imports of poor-quality onions, problems of under-invoicing of imports and high profit margins in agrichemical prices.

11 From an economic standpoint, globalization is characterized by the opening of domestic markets, with an accompanying increase in international trade, financial services, spatial reorganization of production and a constant quest for comparative advantage and competitiveness, which makes technological innovation of great strategic importance. Market liberalization makes it necessary to bring countries' existing regulations into line with certain regulations, standards and measures, such as sanitary, phytosanitary and food safety measures, which are discussed and agreed principally in the World Trade Organization [WTO] and the Codex Alimentarius Commission.

12 After market liberalization, the agricultural and agro-industrial sectors must be seen as part of a system in which they interact closely with other production and service sectors. This broadens the vision of agriculture and recognizes the importance of economic and production activities that take place outside the primary production process, as well as the impact of the political, environmental and social environment on these activities.

Price Support Programmes

13 NAFED is responsible for providing marketing support to producers and ensure that they receive a remunerative price for their product. 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.

14 In case of external trade, NAFED is responsible for fixing the minimum export price [MEP] of onions, which is done on a monthly basis. The Price Fixation Committee of NAFED decides this price. Factors such as market trends, world prices and domestic prices, and margins are considered for arriving at the minimum export price of onion.

15 An inter-ministerial group comprising representatives of the Ministries of Commerce, Consumer Affairs, and Agriculture and NAFED decides the quota for exports to be allocated to each canalizing agency. These quotas are decided for varying periods of say 15 days to a month and generally not for a long period.

Technological innovations

16 The National Horticultural Research Development Foundation [NHRDF], sponsored by National Agricultural Cooperative Marketing Federation of India [NAFED], and the National Research Centre on Onion and Garlic of the Indian Council of Agricultural Research [ICAR] are engaged in systematic efforts for the improvement of onion. Besides these two organizations, several other crop research institutes of the ICAR and State Agricultural Universities are also involved in research on onion. A good number of varieties have been identified. However, there is need of breeding locations/problem-specific varieties. Breeding of disease-resistant varieties should be taken as top priority. Farmers do face shortages of quality seed. Seed production should be augmented.

17 A large proportion of onion production is lost post-harvest owing to such problems as rotting, sprouting and weight loss. This is a result of the poor genetic material used and the inability to invest in drying technology. The first priority is for Indian domestic onion policy should be to resolve the problem of post-harvest losses by building technology capacity, investing in research to identify more appropriate breeds, producing quality seed stock and constructing yards for drying and storage infrastructure, which would improve the cost-effectiveness of onion-growing.

18 NAFED has set up modern state-of-the-art storage facilities in the states of Maharashtra, Gujarat and Tamil Nadu near its major procurement centres. Onions require 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 distances are transported by NAFED's associated shippers in specially-equipped sea vessels in which air is blown in storage areas through fans and blowers. The warehousing facilities available with institutional agencies is grossly inadequate and not distributed widely. Modern facilities of warehousing need to be strengthened in all onion-growing areas. This will also facilitate price stabilisation, besides restricting post-harvest losses.

19 There is dearth of innovations in value-addition to onion. Onion flakes, powder, capsules, paste etc. are widely used in foreign markets, particularly by fast food outlets. India lacks production of such value-added products. Research and technology development should be intensified on this aspect. Cooperatives can develop processing facilities.

Onion in Agro-Food System

20 In the past 30 years, there have been unprecedented changes in the different components of world agriculture as a result of globalization, changes in consumer demand, the advent of new technologies and the need to preserve land, water and biodiversity. Consequently, the agriculture of the late twentieth century came to be viewed as a complete system, going beyond the traditional production-centered concept.

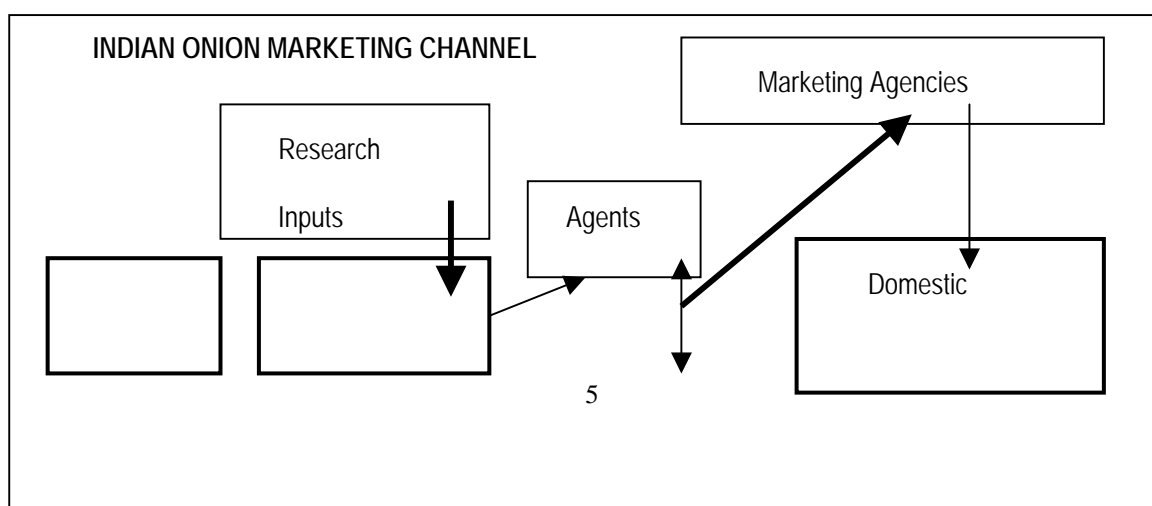
21 An agro-food system is a set of activities which combines the production and distribution of farm inputs; production operations on the farm; and the storage, processing and distribution of onion and items made from them.

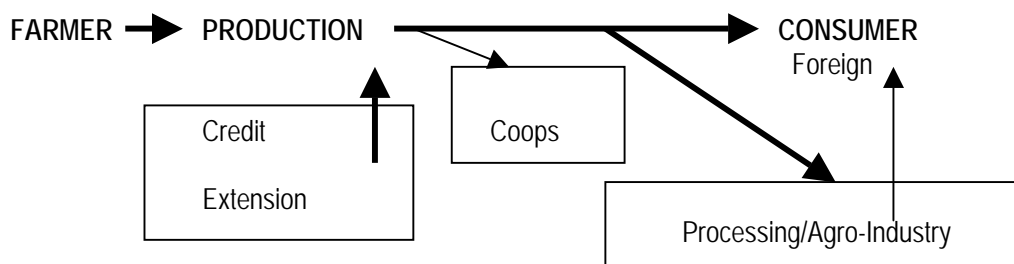
22 The environmental component is also considered to be part of the agro-food system because of its importance for the agricultural and agro-industrial sectors owing to their close ties with the management of natural resources such as water and land, and the impact on rivers, land and air of emissions and waste from production processes. As a result of concerns over this issue in recent years, more and more rules and requirements are being introduced, some of which are imposed by markets themselves. This has led to the development and implementation of approaches and methodologies such as clean technologies, good manufacturing practices and good farming practices, amongst others.

Domestic Market

23 About 10-15% of total onion production is exported and used for processing, and remaining produce is consumed internally, and used as seed material. The cooperatives have been playing a significant role in the marketing of onions particularly after NAFED's entry in this trade. Other cooperatives viz., Horticulture Produce Cooperative Marketing Society [HOPCOMS] in Karnataka, Mother Dairy in Delhi, Onifed in Bhavnagar, Vegetable and Fruit Cooperative Marketing society Lasalgaon, Onion growers Cooperative Societies in Pune and Ahmednagar districts are also taking up activities on onion marketing.

24 Though the onion is produced all over the country, the marketing is well-organised in Maharashtra, Gujarat and Karnataka only. Onion market is not regulated properly. Traders contact farmers directly in the villages or weekly markets [see figure]. Facilities of sorting, grading, curing, storage are not adequate. A loss of 15-20% occurs on various accounts during process of handling after harvesting and in the course of marketing. There is no proper system of production forecast and markets intelligence. Situations of glut and shortages in pockets are often observed because of absence of proper marketing system. As a result, a large variation in price occurs from place to place and time to time; and farmers suffer on account of non-remunerative price.





Onion Export

25 India is a traditional exporter of fresh onion. Immediately after Independence in 1947, in 1951-52 the country was exporting over 5,000 tonnes of onion per year. Exports of onion started expanding rapidly during the '60s and reached a peak level of 427,000 tonnes in 1996-97. There are, however, apparent wide fluctuations in exports from year to year. This may be attributed to the fact that the exports of onion have not been free but are canalized through NAFED and now also some other agencies.

26 One over-riding concern of the canalizing agencies has been the protection of the domestic consumer and producer from unduly high prices and gluts. Exports have been allowed only after domestic requirements have been met, which is a cause of the fluctuations in exports from year to year. Exports of onion have fetched the country valuable foreign exchange and have earned for the producers a high price per tonne. The profitability and the potential offered by the exports of onion are evident from the fact that, on a national basis, the area under onion is steadily increasing [Table-2]. The increase in area has been particularly significant after the initiation of the economic and trade policy reforms beginning in 1990-91 which have helped to liberalize trade in agricultural commodities.

Table-2: Area, Production and Productivity of Onion in India

Year	Area M Ha	Production MT	Yield T/Ha
1994-95	0.38	4.04	10.661
1995-96	0.4	4.08	10.391
1996-97	0.4	4.18	10.348
1997-98	0.4	3.62	9.091
1998-99	0.47	5.33	11.391
1999-00	0.49	4.9	9.932
2000-01	0.42	4.55	10.786
2001-02	0.45	4.83	10.686
2002-03	0.44	4.51	10.349
2003-04	0.47	5.58	11.992

27 The export market mix for onions changes from year to year, but India's onion exports cater mainly to the neighbouring South-East Asian countries, and some Middle-East nations. Malaysia, UAE, Sri Lanka, Bangladesh, Singapore and Saudi Arabia account for the major share of exports from India. In 2003-04, India exported onion to 42 countries. The data presented in Table-3 shows major importers of fresh onion from India during 2003-04 as compared with the figures of 1997-98 along with the quantity of their import.

Table-3: Export of Onion from India

No.	Importing Country	Quantity [MT]		Value [Million Rs.]	
		1997-98	2003-04	1997-98	2003-04
01	Malaysia	78,376	92,420	509.58	821.49
02	UAE	85,532	98,680	466.34	678.44
03	Singapore	32,441	42,008	302.05	431.311
04	Sri Lanka	57,208	68,980	288.73	382.85
05	Bangladesh	50,035	60,340	259.74	418.36
06	Saudi Arabia	13,114	18,220	92.26	102.30
07	Mauritius	5,096	8,310	29.26	38.39
08	Kuwait	5,067	8,418	26.98	39.36
09	Bahrain	1,633	2,810	12.87	16.70
10	Maldives	807	1,300	4.36	8.38
11	Other Countries	3,691	6,700	32.42	58.68

Source: *Export Statistics for Agro and Food Products, India, 2003-04. [APEDA], 2005.*

Conclusions

28 In spite of the distortions, onion-growing is profitable in India. The commodity always remains in demand irrespective of the type of season. The most profitable production areas are Maharashtra, Gujarat and Tamil Nadu. However, the production has sadly remained static. The export network has not expanded as compared with countries like China. India has the capacity to increase its competitiveness by reducing costs by using low-cost agricultural practices and integrated pest and disease management.

29 Another priority of the domestic onion policy should be to exercise tighter controls on imported onions to address the quality, quarantine and under-invoicing problems.

30 The policy should also help build the technical and financial capacity of producer/cooperative organizations, to enable them to get involved in production, marketing and warehousing their onions. Institutions like the National Cooperative Development Corporation [NCDC] can come forward not only to provide financial support to the onion farmers and their cooperatives but also to assist them in introducing appropriate technological innovations e.g., high-tech warehouses, laboratories, transportation equipment, value-addition technologies and IT-based management systems. A huge extension programme fully supported by research is urgently needed to enhance productivity and quality. In order to give further pungency and teeth to the Indian onion in domestic and foreign market, better seeds and quality farm chemicals are also needed. Training and education of farmers and professional management of onion-growers' cooperatives is yet another important need.

32 A significant aspect which has gone amiss is the neglect of value-addition to increase economic returns to the farmers. The wastage/spoilage in transportation and handling at various stages need to be minimised. By strengthening production and handling techniques, enhancing productivity, penetrating in foreign markets and managing the crop scientifically and professionally, a true pink hue can be added to the 'Pink Revolution'.

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