CHAPTER - I

INTRODUCTION

Development consensus is that a strong performing agricultural sector is fundamental for overall economic growth. Study of the subject of "Credit for Agriculture Marketing in India" necessitates deeper understanding of the way our agricultural markets have been functioning and have reformed as well as developed over a period of time. As marketing of agriculture produce needs to be directing its production in accordance with clear signals from the market place, marketing of agriculture produce thus forms an integral part of agriculture activities. Therefore the study of the subject also requires understanding of how credit flows to agriculture sector in Indian context. We begin by understanding the agricultural growth and evolution of modern agricultural markets in the country.

At early stages of development, the economy needs an engine of growth. Such an initial engine of growth can come from a variety of sources, such as the development of agriculture, industry, tourism etc. There have been a number of developing countries such as India and China etc, where growth was led by agricultural broad based productivity changes. Agriculture production grows and evolves to reflect the demands of industry and the cities, and industries grow and evolve to reflect the potential of the rural sectors. "Getting agriculture moving" is a slogan from early in the post-World War II period as population pressures were seen as requiring faster expansion of food production in many developing countries. Traditional agriculture is characterized by poverty or subsistence-level living standards with majority of the world's poor living in rural areas. Though, agriculture alone will not be enough to massively reduce poverty, promoting agriculture is imperative for meeting the '***United Nation's Millennium Development Goal'*** of halving poverty and hunger by 2015 and continuing to reduce poverty and hunger for several decades thereafter.

While agricultural growth strategy in India have contributed to poverty reduction over period of time particularly in farming community, yet a substantial percentage of total rural population in the country remains poor. Table-1.1 provides the percentage and number of rural poor in rural India as released by Planning Commission of India through Press Information Bureau, Govt. of India.

Table-1.1: Percentage and Number of Poor in Rural India

Sl. No	Year	Rural Poor (in Millions)	Rural Poverty Ratio (%)
1	1973-74	261.3	56.4
2	1987-88	231.9	39.1
3	1993-94	244.0	37.3
4	1999-2000	193.2	27.1
5	2004-05 (Uniform Recall Period)	220.9	28.3
6	2004-05 (Mixed Recall Period)	170.3	21.8

Source- Press Information Bureau Press Releases (March 1997 & March 2007)

Growth of Agriculture in India

In the beginning of 20th century, Mahatma Gandhi had declared "*The soul of India lives in its villages*". Today even India remains one of the world's largest agrarian economies, with her 52% of total land as cultivable as against 11% in the world. India is world's second largest producer of food grains being the second largest producer of paddy, wheat, edible oilseeds, sugar cane, fruits and vegetables. India is also the largest producer of pulses and milk in the world. Agriculture sector which contributed 70% of India's GDP and 85% of employment at the time of independence, today contributes merely 14.6% of country's GDP (at 2004-05 prices) during 2009-10, while employing about 58 percent of the country's workforce. As per the press release of PHD Chamber of Commerce & Industries(PHDCCI), per capita income of the agriculture population was around half at Rs. 5,505/- of the National Per Capita income at Rs.11,433/- during 1980, which was 32% (at Rs.10,865/-)of the National Per Capita income at Rs.33,802/- during 2010 (Table-1.2).

Table-1.2: Income Distribution in Agriculture Sector

Year/ Period	Agriculture Share in GDP (%)	Population Dependent on Agriculture(%)	Agriculture Per Capita Real NNP at Factor Cost (Rs.)	Overall Per Capita Real NNP at Factor Cost (Rs.)
1980	39	70	4745 (56%)	8540
1990	31	65	5505 (48%)	11433
2000	25	59	6652 (42%)	16020
2010	18	56	10865 (32%)	33802

Source- http://www.phdcci.in/pr-02-2011.pdf

Note- Figures in brackets indicate % of National per capita income

The share of agriculture export in total export of the country is 10.59%. Though India has a revealed comparative advantage of more than one for agriculture, yet she contributes to only 1.4% of world trade as country's share in agriculture trade. The bulk of the world trade has now shifted to processed food from the traditional unprocessed ones. Processing constitutes 2.2 % of fruits & vegetables produced in India, as against 30% in Brazil and 83% in Malaysia. During the last decade or so Indian agriculture has faced a number of severe challenges, superimposed on the long-term demographics. Growth of agricultural GDP decelerated from over 3.5% per year during 1981–82 and 1996–97 to only around 2% during 1997–98 and 2006–07 (Table-1.3).

Table-1.3: Average GDP Growth Rates—Overall and Agriculture (% per Year at 1999–2000 Price)

Sl. No.	Period	Total Economy	Agriculture & Allied Sector
1	Pre-green revolution 1951–52 to 1967-68	3.69	2.54
2	Green revolution period 1968–69 to 1980–81	3.52	2.44
3	Wider technology dissemination period 1981–82 to 1990–91	5.40	3.52
4	Early reforms period 1991–92 to 1996–97	5.69	3.66
5	Ninth Plan 1997–98 to 2001–02	5.52	2.50
6	Tenth Plan period 2002–03 to 2006–07 of which 2002–03 to 2004–05 2005–06 to 2006–07	7.77 6.60 9.51	2.47 0.89 4.84

Source: Planning Commission -XI Plan Approach Paper

Despite steady decline of its share in overall GDP, agriculture is still a very important sector and plays a significant role in the overall socio-economic development of the country. As per "*World Development Report 2008*" with the theme "Agriculture for Development", it is stated that cross-country estimates show that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating outside agriculture. Rapid growth of agriculture in India following technological innovations (the diffusion of high yielding varieties) and in China following institutional innovations, was accompanied by major decline in rural poverty. Farmers need to have assured access and control over basic resources, which include land. Land holding inequality is reflected in land ownership. As per the Report of the *National Commission on Farmers (2004-06), chaired by Dr. M.S. Swaminathan*, the share of the bottom half of the rural households in the total land ownership in 1991-92, was only 3% and for the top 10%, it was as high as 54%(Table-1.4).

Table-1.4: Land Holing Pattern in India- Access to Land

Sl. No.	Land Holding (in acres)	% of Land Held	% of Household
1.	Landless		11.24
2.	Sub-Margin Holding(0.09-0.99)	3.8	40.11
3.	Marginal Holding(1.0-2.49)	13.13	20.52
4.	Small Holding(2.5-4.99)	18.59	13.42
5.	Medium Holding(5.0-14.99)	37.81	12.09
6.	Large Holding(15 & above)	26.67	2.62
	Total	100	100

Source- Fifth Report of National Commission on Farmers (2006)

S Narayanan and A Gulati (2002)[1] have stated that farmers owning less than 2 hectares in India account for 40% of total food grain production. They possess the highest shares of livestock—more than 55% of cattle, buffalo and goats and 70% of pigs. Thus the welfare of the smallholders has powerful implications for overall agricultural production, poverty alleviation and

[1] Sudha Narayanan and Ashok Gulati, (Nov. 2002) - "Globalization and the Smallholders: A Review of Issues, Approaches and Implications" - MSSD Discussion Paper No. 50, pp 6, International Food Policy Research Institute (IFPRI) &World Bank

food security.Agriculture presents a unique opportunity to promote 'all-inclusive-growth' due to its multiplier effect on the rural economy. India faces a greater challenge, since with only 2.3% share in world's total land area; it has to ensure food security of its population which is about 17.5% of world population. This leads to excessive pressure on land and fragmentation of land holdings against the backdrop of the burgeoning population's demands for food grains. There has been continuous focus of the policy makers on food grain production since independence to ensure food security in the country. Food grains production which was at the level of 51 million MTs at the time of independence, increased considerably to 212.9 million MTs in 2001-02 and thereafter modestly to 241.6 million MTs in 2010-11.

Due to concerted effort made in last ten years, total production of fruits and vegetables have increased from 134.00 million MTs during 2002-03 to 197.57 million MTs during 2008-09 thus outpacing the growth in food grain segment. India is one of the largest and lowest cost producers of high value agriculture commodities and yet has a minuscule share in global trade. Though scientific and technological innovations through introduction of improved seeds and micro-nutrient and irrigation practices have been introduced, yet the growing yield/hectare (productivity) have not been as high as witnessed elsewhere in the world as may be seen from comparative figure for selected commodities given in Table-1.5.

Table-1.5: Production (in 000'Tonnes) and Yield (Kg/ hectare)

Sl. No	Country	Paddy		Maize		Sugarcane		Onion	
		Prodn.	Yield	Prodn.	Yield	Prodn.	Yield	Prodn.	Yield
1.	China	193354	6556	166036	5558	124918	73114	20817	20800
2.	India	148260	3370	19290	2324	348188	68877	13565	16300
3.	Pakistan	10428	3520	4036	3611	63920	51494	2015	13200
4.	Brazil	12100	4229	59018	4086	648921	79709	1299	20400
5.	Egypt	7253	9731	6544	7977	16470	121136	1728	32700
6.	U.S.A.	9240	7672	307384	9658	27603	73765	3349	53900

Source-Agricultural Statistics at a Glance, 2010

Fostering rapid, sustained and broad-based growth in agriculture remains key priority for the government. The major causes of the agrarian crisis have generally been attributed amongst several reasons to unfinished agenda in land reform, quantity and quality of water, access as well as adequacy and timeliness of institutional credit, and opportunities for assured and remunerative marketing of agriculture produce by producers.

Agriculture Marketing in India

Agriculture Marketing, which plays a crucial role in ensuring remunerative price to the farmers, connotes the services involved in moving an agricultural product from the farm to the consumer. Numerous interconnected activities are involved in doing this, such as planning production, growing and harvesting, grading, packing, transport, storage, agro-food processing etc. The process involved in the disposal of agricultural produce is significant not only for the farmers but is also of great economic importance to the country as a whole. Food performs two economic functions: it provides income to farm households, and it is a wage good, i.e.; it forms a large component of urban consumption and contributes to determining the real incomes of urban workers. Any increase in food prices necessitates an increase in urban wages, thereby increasing labor costs and reducing the returns to industrial development. It was thought important to intervene in agriculture sector to keep consumer prices low to encourage investment in modern and urban industries. Government has been intervening in agriculture, especially in output markets. Government intervention in agricultural markets was intended to improve sector coordination and efficiency as well as improving farmers' remuneration.

History of Modern Regulated Markets

The development of modern days regulated agriculture markets in India can be traced to British period. This all started with regulation of trading of agricultural commodities primarily to serve the interest of imperialistic regime.

i. Pre-Independence Period

The history of regulated markets in India can be traced back to the Hyderabad Residency Order of 1886, which brought Cotton under regulation for marketing. This was followed by the Cotton and Grain Market Act enacted in Berar region of the then Nizam State. The Indian Central Cotton Committee recommended enacting the Cotton Markets Act of 1927. Followed by this, the Royal Commission on Agriculture of 1928 strongly recommended the establishment of regulated markets in the country. A few provinces in British India enacted the Regulated Markets Act and thus by the time of independence, about 285 regulated markets existed in different parts of the country. Before Independence, market legislation was in force in Bombay (1927), Central Province (1932, 1935), Mysore (1939), Punjab (1941) and Patiala (1947). The system has undergone several changes during the last 60 years owing to the increased marketed surplus; increase in urbanization, income levels and consequent changes in the pattern of demand for marketing services; increase in linkages with distant and overseas markets; and changes in the form and degree of government intervention. An important characteristic of agricultural produce markets in India has been that private trade has continued to dominate the market. With the large quantities required to be handled by the private trade, the size and structure of markets over time have considerably expanded. The marketable surplus (after factoring for self-consumption) may be sold by the farmer direct to the consumer or more usually to traders, millers or in the regulated markets. The marketed surplus of agriculture commodities have been projected by various agencies and in case of horticulture produce it is estimated to be more than 80% while it is taken around 60% for food grain items. The transactions may be carried out by direct negotiation or through intermediaries, by open or under cover auction in wholesale markets or spot markets or in future markets. By a series of indispensable adjustments and equalising functions, it is the task of the distribution system to match the available supplies with the existing demand.

ii. **Post-Independence Period**

As rural households are the poorest in the country, there is virtually a policy mandate for the successive governments to support and raise the incomes of small farmers. After starting of planning era, the Planning Commission emphasized the vital role played by the regulated markets and urged the states to enact suitable acts, keeping in view the fact that agriculture is a state subject in the constitution. The problems of marketing failures such as heavy market charges, unauthorized deductions, incorrect weighing and absence of grading were highlighted and it was expected that the legal framework would take care of the following problems. Four components predominated the policy interventions viz.: i. Putting in place regulation of marketing functions and removing imperfections; ii. Creation of infrastructure, to facilitate the process of marketing; iii. Introduction of Price intervention schemes; iv. Procurement and distribution of essential commodities. As agriculture marketing is a state subject as provided in Entry No. 14 of list II under Article 246 of Constitution of India, various state governments (except the States of Jammu and Kashmir, Kerala, Manipur, Sikkim, Arunachal Pradesh, Mizoram and small Union Territories such as Dadra and Nagar Haveli, Andaman and Nicobar Islands, Lakshadweep) had enacted necessary legislation popularly known as the State Agricultural Produce Marketing Committee (APMC) Act. Government of India has played a supporting role in promoting agriculture marketing in the country. There are now Regulations (State APMC Act) in vogue in 25 states and 3 Union Territories (Delhi, Puducherry & Chandigarh) in the country.The APMCs have been constituted under respective State Legislations and the State Agricultural Marketing Boards are functioning either in an advisory or in a statutory capacity. The institution of State Agricultural Marketing Boards was created for expeditious execution of the market development work. So far 25 States and three UTs have established Agricultural Marketing Boards in their respective States/UTs. In some States like A.P., Odisha and Tamil Nadu the Boards are advisory in nature and in the Sates of Punjab, Haryana, Rajasthan, W.B., Karnataka and Maharashtra are statutory in nature. The purpose of regulated agricultural markets (APMCs) was to protect farmers from the exploitation of intermediaries and traders and also to ensure better prices and timely payment to producers for the wholesale marketing of produce. State intervention in agricultural marketing is by definition aimed at correcting perceived market failures. Various studies on the impact of regulated markets [(Agarwal and Meena, 1997)[2]; and (Suryawanshi et al., 1995)[3]] have highlighted several positive features of the regulation program. These include a open process of price discovery, more accurate and reliable weighing, standardized market charges, payment of cash to farmers without undue deductions, dispute settlement mechanism, timing and sequencing of auctions, reduction in physical losses of produce, and availability of several amenities in market yards. The Act enables the respective states to regulate the markets by providing for the notification of market areas and the commodities to be covered in the act in different areas. Under the legislation, only the state government could set up markets thereby preventing the private sector from setting up markets and invest in marketing infrastructure. The number of commodities notified for regulation varies from state to state with as many as 54 in Andhra Pradesh, while In Karnataka, the number of commodities regulated varies even from market to market in the state.

Growth of Regulated Markets in Independent India

By the end of 1945, there were 146 regulated markets in the country (Agricultural Marketing, Statistical Abstract 2006)[4].Their number has increased, from a meagre 286 at the time of independence to 7557 in year 2005. The number of regulated markets is stated to be 7246 by March, 2011, the state-wise details of which, is placed at Annexure-1.1 to this chapter. In

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[2] Agarwal, N.L. and B.L. Meena (1997), Agricultural Marketing in India- Performance of Cumin Marketing in Rajasthan, Bihar Journal of Agricultural Marketing, 5(3), September. December, pp. 319.28.

[3] Suryawanshi, R.R., B.N. Pawar and P.D. Deshmukh (1995), .Marketable Surplus and Marketing Cost of Oilseeds and Pulses in Western Maharashtra., Bihar Journal of Agricultural Marketing, 3(2), April. June, pp. 201.4.

[4] Statistical Abstract (2006), Agricultural Marketing, National Institute of Agriculture Marketing, Jajpur

addition, there are 21,238 Rural Periodic Markets, about 15 per cent of which function under the ambit of regulation. The number of regulated markets is relatively more in geographically larger states viz. Andhra Pradesh, Maharashtra, Madhya Pradesh, Uttar Pradesh and West Bengal. The States of Punjab and Haryana though geographically small, have a large number of regulated markets owing to sizeable quantity of surpluses of rice and wheat. These two states account for more than 10% percent of the total regulated markets in the country. The State of Punjab has one market for 18,000 ha of gross cropped area. Similarly, one market exists for every 13,580 hac. of gross cropped area in West Bengal, 15380 hac. in Andhra Pradesh and 37,050 hac. in Madhya Pradesh.

The National Commission on Farmers (2004-06)[5] have recommended that the facility of regulated market should be available to the farmers within a radius of 5 Km. (80 sq. Km.). However, in the existing situation, except Delhi and Puducherry, in no State/UT, the density of regulated markets is even close to the norm. The area served per regulated market yard (by March 2011) is as high as 7096 Sq. Km in Sikkim, 1160 Sq. Km in Himachal Pradesh, 963 Sq. Km in Uttarakhand and 794 Sq. Km in Rajasthan. This is in contrast to Punjab, where each regulated market serves on average, 103 sq. Km. of area. As per the report of XI Plan working group of Planning Commission on Agriculture Marketing, one rural primary market/haat on an average, caters to approximately 14 villages. Smallest villages (population less than 500) held the fewest haats (only 1.6%). Majority of haats (47.9%) are held in big villages (those with a population of over 5000 persons). Nearly 2/3rd of the haats are held at a distance of 16 kms, while 23 percent are held at 6 to 15 kms distance.

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[5] Report of National Commission on Farmers- Serving Farmers and Saving Farming 2006: 5th Report, Ministry of Agriculture.

What is Agriculture Marketing?

National Commission on Agriculture (1976)[6] defines '*agriculture marketing*' as '*a process which starts with a decision to produce a saleable form of commodity and involves all aspects of market structure of system, both functional and institutional, based on technical and economic considerations and includes pre and post harvest operation, assembling, grading, storage, transportation and distribution*'. The working group of Planning Commission on Agricultural Marketing Infrastructure and Policy required for Internal and external Trade for the XI Five Year Plan (2007-12) in its report (January 2007)[7] has defined agricultural marketing system in broadest terms as physical and institutional set up to perform all activities involved in the flow of products and services from the point of initial agricultural production until they are in the hands of ultimate consumers. This includes assembling, handling, storage, transport, processing, wholesaling, retailing and export of agricultural commodities as well as accompanying supporting services such as market information, establishment of grades and standards, commodity trade, financing and price risk management and the institutions involved in performing the above functions. There are three important dimensions of an agricultural marketing system i.e.; market structure, conduct and performance. Marketing system is the critical link between farm production sector on the one hand and nonfarm sector, industry, and urban economy on the other. Besides the physical and facilitating functions of transferring the goods/commodities from producers to consumers, the marketing system also performs the function of discovering the prices at different stages of marketing and transmitting the price signals in the marketing chain. The issues and concerns in marketing relate mainly to the performance (efficiency) of the marketing system, which depends on the structure and conduct of the market.

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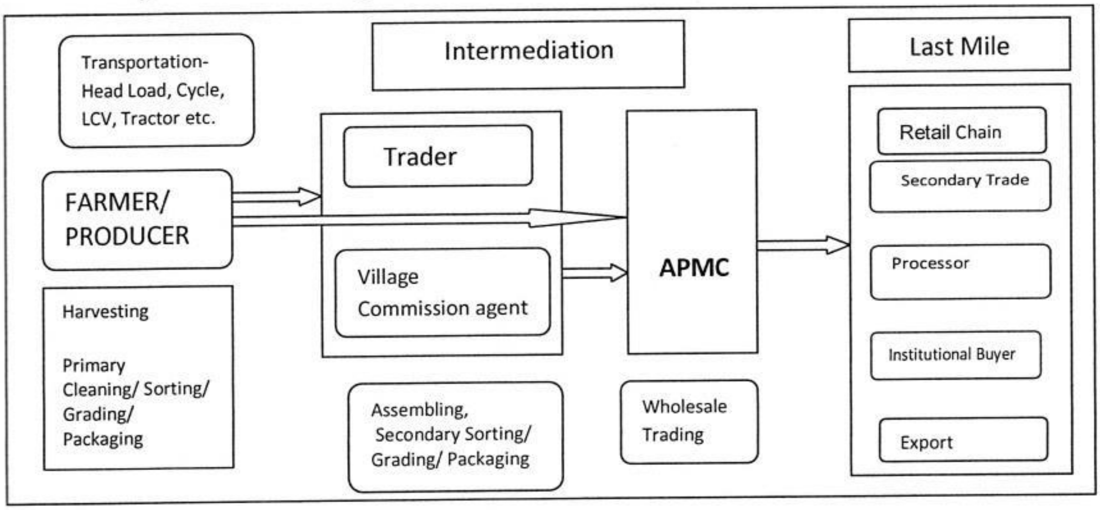
[6] Report of the National Commission on Agriculture, (1976), Ministry of Agriculture and Irrigation

[7] Planning Commission of India, Report (January- 2007) of working group on "Agricultural Marketing Infrastructure and Policy required for Internal and external Trade for the XI Five Year Plan (2007-12)"

A schematic presentation of a traditional market has been shown at Fig.-1.1.

Fig. –1.1: Flow Diagram of Traditional Whole-Sale Marketing



A comprehensive study of the agricultural marketing system during the last fifty years by S.S. Acharya (2004)[8], identifies several problems associated with traditional regulated markets. Major issues and challenges faced by the farmers and producers are: inadequate or even lack of market infrastructure facilities, poor connectivity and transportation facilities, large intermediation and post-harvest losses, high market fee and commission charges, low level of grading etc, leading to poor share of farmers earning in consumer price.

Market Infrastructure Facilities- Is it Adequate?

Market infrastructure plays a very important role not only for the performance of various marketing functions and expansion of the size of the market but also for transfer of appropriate price signals leading to improved marketing efficiency. Market Infrastructure facilitates vertical and horizontal integration, thereby bringing economies of scale and cost efficiencies in the supply chain. The lack of provision of important infrastructure facilities in the market yards, such as, drying yards, auction platforms, weighing platforms,

[8] Acharya, S.S. (2004), Agricultural Marketing in India, Volume 17, Millennium Study of Indian Farmers, Government of India, Academic Foundation, New Delhi.

cleaning/sorting/grading/packaging facilities, storage godowns, cold storages, shops which are critical for efficient marketing, as mentioned in XI Plan (2007-12) document of Planning Commission on Agriculture and Rural Development (Vol.III)[9] may be seen below (Box-1.1):

Box-1.1

Inadequate Market Infrastructure in Regulated Markets

i. *One-fourth of the markets have common drying yards, trader modules;*
ii. *Covered or open auction platforms exist in two third of regulated markets;*
iii. *Trader modules, viz, shop, godown and platform in front of shops exist in 2/3rd of regulated markets only;*
iv. *Cold Storage units exist only in 9% of markets;*
v. *Grading facilities exist in less than 1/3rd of markets;*
vi. *Lack of cleaning, grading, electronic weighing and quality certification facilities;*
vii. *Electronic auctioning present in very few markets;*
viii. *Facilities like internal roads, boundary walls, electric lights, loading and unloading facilities, weighing equipments not available in nearly 20% markets;*
ix. *Farmers' resting facilities in only 50% of markets;*
x. *Inaccessibility to market due to far of locations from farms;*

Source- Planning Commission (2008)

The rural markets, which constitute the first contact points between the producer seller and the commercial circuits, have remained grossly neglected in terms of amenities and facilities available in these haats. Infrastructure facilities lead to reduction in marketing costs, which is crucial for increasing the realization of growers and reducing the costs to the consumer. This raises the question of accessibility of the wholesale, regulated agricultural markets and even primary rural markets by the farmers particularly by the small and marginal farmers, who are economically weak and have very little marketable surplus. The increase in marketed surplus of commodities has given rise to demand for increasing marketing facilities. The poor financial health of most of APMCs and Marketing Boards due to mismanagement and political

[9] Planning Commission of India (2008)-Eleventh Five Year Plan (2007–2012) document on "Agriculture, Rural Development, Industry, Services and Physical Infrastructure", Volume III, Oxford University Press.

interference has not facilitated the development of requisite marketing infrastructure facilities in these regulated markets. Even, agriculture market infrastructure is yet to be accorded the status of 'infrastructure' in the country, which would have otherwise provided access to host of other resources and facilities.

Connectivity and Transportation

An efficient transport system is critically important to efficient agricultural marketing. Seasonally impassable roads, rough roads, inadequate transport services coupled with poor storage, can lead to losses as perishable crops (such as fruits & vegetables) deteriorate quickly over time subjecting the farmers to loss and low price realization. Though the main road network is important for movement of agricultural produce, the more crucial part of bringing the produce from the field to the transport point is more often ignored. Improvement in rural connectivity through 'Pradhan Mantri Gram Sadak Yojana', which concentrates mainly linking the villages, has helped some of the rural areas in transportation of agricultural commodities to various markets in neighbouring urban centres. From the farmers' point of view, the farm roads that facilitate transportation of farm produce from fields to the collection centre/mandi are very vital. Similarly, if transport services are infrequent and of poor quality or expensive then farmers will be at disadvantage when they attempt to sell their crops. A well-developed and efficient system of transportation helps in the expansion of markets, reduces the transport time and costs of transportation of the commodities. Majority of the agricultural produce, producer of the tribal areas and perishable farm products are still confined to village markets for sale of their produce for want of surfaced roads and sufficient means of transportation. As regard transportation of highly perishable commodities such as of fruits and vegetables are concerned, there is a gross inadequacy of availability of cost-effective temperature and humidity controlled reefer transportation in the country as brought out in the report of Task Force on Cold Chain Development in India (2008)[10].

Nature of Market and Marketing Cost

Various reasons have compounded the cause of monopolistic nature of the agriculture markets as well as high marketing cost for perishable agricultural produce. These reasons range from combination of several attributes such as high market fee/cess/tax, commission and other charges in regulated markets, large intermediation and post-harvest, lack of economical availability of proper temperature and humidity controlled transportation for perishables as well as lack of grading of the produce. These have not only led to high marketing cost build-up, leading to low farmer share in consumer price.

i. Monopoly of Traders

Majority of farm household being small and marginal, produce primarily for their own consumption, supplying to the market only that share of production that is surplus to their requirements. Small variations in yields because of weather and other sources of instability, in the aggregate, can have significant effects on total marketed supply. In addition, small fluctuations in prices could have major effects on farm household incomes and welfare particularly pertaining to small and marginal farmers. Generally commission agents gain more control through money lending operations. By offering loans, commission agents compel farmers to sell their produce through them only. In the process, the producers not only lose their bargaining power for a better price but are also made to pay exorbitant interest on loan. The licensing of traders in the regulated markets (APMCs) has led to the monopoly of the licensed traders in the APMCs, acting as a major entry barrier for new entrepreneurs. Very large numbers of participants,

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[10] Report of the 'Task Force on Development of Cold Chain in India' ((2008), Department of Agriculture and Cooperation, Ministry of Agriculture

millions of farmers and millions of consumers, guarantee competitiveness at each end of the agriculture and food marketing chain. The issue is the number of participants in the chain in between and the potential access of additional participants. It is the "invisible hand" that guides private self-interest into maximizing social welfare. For competition to play this powerful role, there must be an adequate number of participants on both sides of the exchange relationship so that no single agent can significantly influence the outcome of the exchange. It is also commonly believed that rural smallholders fall prey to exploitation by oligopsonistic behavior among traders and processors who colluded to keep prices low (see Timmer, Falcon, and Pearson 1983)[11]. Over a period of time these markets have, however, acquired the status of restrictive and monopolistic markets, providing no help in direct and free marketing, organized retailing, and smooth raw material supplies to agro-processing, competitive trading, information exchange and adoption of innovative marketing systems and technologies. Even it is stated that it lacked transparency in transactions, leading to exploitations of farmers by traders and commission agents.

ii. Market Fee and Commission Charges

Since the agricultural produce marketing committees (APMCs) do not allow the traders to buy from the farmers outside the specified market yards or sub-yards, the cost of marketing increases. The APMCs in the country collects market fees which vary from 0.5% (Gujarat) to maximum of 2% (Punjab and Haryana). In pre-reform period (prior to 2003), even market fees use to charged more than 2% in some of the states measuring up to 4%. Additionally, several state governments have introduced other Taxes/fees/cess that creates considerable confusion. The hub of activities of a regulated market is the market yard/sub-yard that is a statutory area where producers and/or village/district commission agents bring the produce (notified commodities) for sale (wholesale) and the commission agents normally

[11] World Bank (1983)-"Food policy analysis ": by C. Peter Timmer, Walter D. Falcon and Scott R. Pearson /Johns Hopkins University Press

arrange for sale of the commodity under the supervision of the market committee. Even though, the commission agents are responsible for the display, sale, storage and payment immediately after sale, yet the farmers undergo a lot of problems in realizing their sale proceeds. Depending on market and commodity, commission charges vary from 1% to 2.5% in food grains, and 4% to 8% in case of fruit and vegetables.

In addition to market fee/cess and commission agent charges, the agriculture commodities are subject to variety of charges such as hamal charges, weighment charges etc., which makes the marketing cost through these regulated markets unseemingly high. For example, in Punjab, the total market charges on transactions of food grains are around 15.50% : (market fee 2%, Development charges 2%, Purchase Tax 4%, Commission charge – 2%, Infrastructure cost 1.5%, VAT 4% ad valorem apart from the charges for weighing – Rs.0.55, loading – R.0.40, Brokerage – Rs.0.16, Hamal Rs.1 and cleaning 0.65/bag/qtl.). Agriculture commodities and food items remain imperfectly tradable because of high transaction costs. The rates of entry tax/octroi tax and sales tax levied on different agricultural commodities vary from State to State which increases the cost of marketing of agricultural and horticultural produce and gives distorted signals to farmers hampering production growth, and brings trade distortions.

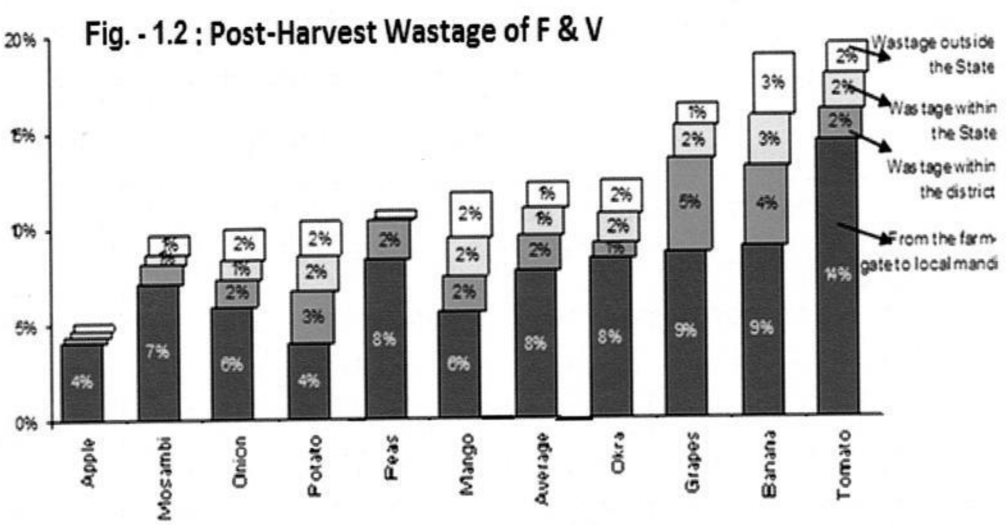
iii. Post- Harvest Losses

As per Report of the Millennium study sponsored by Ministry of Agriculture about 7% of grains, 30% of fruits and vegetables and 10% of seed species are lost before reaching the market due to poor handling (cleaning, sorting, grading and packaging) at the farm gate or village level. As per the World Bank Report (2007)[12], the supply chains that developed in India under the State legislation were primarily local and regional in nature ending within state boundaries. It points out that single most important indicator of the lack of adequate storage and marketing infrastructure for horticulture produce in

[12] World Bank (2007) - "From competition at home to competing abroad-a case study of Indian Horticulture"

India is the level of wastage in the system- which according to some estimate is as high as 20-40 percent of total production with average wastage in horticulture sector between farm gate and wholesale level, is around12 percent of total production (Fig.1.2).

Fig. - 1.2 : Post-Harvest Wastage of F & V



Source- World Bank Report (2007)

Further the report points out that India wastes more fruits and vegetables than those consumed in United Kingdom. The high level of wastage in the system is due to multiple handling, improper packaging and handling, lack of temperature controlled vehicles, storage facilities and other critical market infrastructure. In India marketing chains are highly fragmented, often with six to eight intermediaries. The restriction on private domestic investment in wholesale and foreign investment in retailing of agricultural commodities prevented emergence of large organised efficient pan Indian supply chain. Consequently, supply chain in India became populated with too many small and inefficient intermediaries, who (and not the farmer) have gradually become the largest beneficiaries and the biggest supporters of excessive regulations in agricultural storage and marketing sphere. Abdul Rauf et.al. (2011)[13] has evaluated the marketing costs borne by the producers, wholesalers, retailers of Apple in J & K and H.P which clearly

[13] Abdul Rauf, Sajad A. Saraf (August 2011) - 'Marketing Strategies In Apple Industry – An Empirical Study In Himachal Pradesh And Jammu & Kashmir'-Indian journal of Marketing-Vol-41

indicates that burden of marketing cost is remarkable and constituted around 20-25 % of the net price realized by the grower. Apart from high cost of marketing, market fee/taxes/cess/octroi, also create hassles on the state borders causing considerable delays in inter-state movement of agricultural commodities.

iv. Grades and Standards

Grades and Standards play a vital role in the agricultural marketing, which helps in promoting a common trade language and thereby improving pan India trade. However, Different set of standards/specifications for agricultural commodities are followed by different organizations in the country. The food safety standards laid down in the Prevention of Food adulteration (PFA) Act (now being subsumed under Food Safety and Standards Act, 2006)[14] are the National Standards. Besides this, there are two major grading and marking standards commercially followed nationally i.e.; AGMARK Standards, and BIS Standards. While Agricultural Produce (Grading and Marking) Act, 1937 popularly called AGMARK promoted by Directorate of Marketing and Inspection under Ministry of agriculture provides grades and standards for 205 agriculture commodities, Bureau of Indian Standards (BIS) under Ministry of Consumer Affairs has prescribed standards for 196 agricultural and allied processed commodities. With the setting up Food Safety and Standards Authority of India under Ministry of Health, it is expected that harmonised standards will be evolved which will gradually help in promoting a common trade language for agriculture commodities in the country. Grading is being undertaken at the traders and producers level both for internal consumption and for export. To facilitate producer level grading in APMCs, grading centres have been established only in 1408 markets so far. Similarly there are 111 grading centres with various cooperative societies in the country, apart from another 222 grading centres being available with private parties. There is a need to create facilities for cleaning, grading and packaging at primary level and also in the villages/farm head which requires

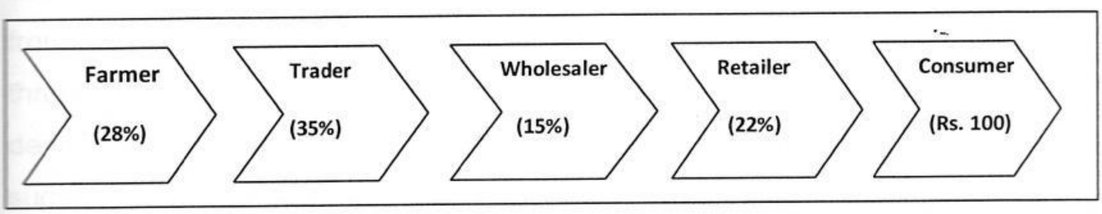
[14] The Gazette of India Extraordinary Part II- Section I (No. 34 of 2006), Ministry of Law & Justice: The Food Safety and Standards Act, 2006

investment by farmers/producers. In the absence of such facilities at the village level, the market yard gets flooded with organic wastes. Primary processing in terms of pre-cooling, cleaning sorting, grading and appropriate packaging by farmers near production point would fetch better remuneration to them for their produce. Farmers have to increasingly produce to meet the requirements of buyers rather than relying on markets to absorb what they produce.

v. Farmer's Share in Consumer Price

High post-harvest losses coupled with high marketing cost and large intermediation reduces the farmers share in consumer price. As per Report of the Millennium Study(S S Acharya, 2004)[15], farmer's share in consumer rupee is 32-68% for fruit and vegetables,56-89% for paddy, 77-88% for wheat, 72-86% for coarse grain and 79 to 86% for pulses. As per the report ' Winning with Intelligent Supply Chain" (2007)[16] for FICCI, India has 6 to 7 intermediaries in fruits and vegetables supply chain, as against 2 to 3 in developed countries. Intermediaries play a vital role in linking farmers with consumers in traditional supply chain, but their inefficiencies raise cost up to 3.5 times of farm gate prices (Fig-1.3). The report bring out that mark-up from farm gate price to consumer price is 1.6 times in milk, 2.2 times in fish and 3.5 times in fruits and vegetables. Large intermediation reduces farmer's share in the consumer's rupee.

Fig.- 1.3: Prices of F & V from Farm Gate to Consumer



Source-FICCI: "Winning with Intelligent Supply Chain" Ernst & Young (2007)

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[15] Acharya, S.S. (2004), Agricultural Marketing in India, Volume 17, Millennium Study of Indian Farmers, Government of India, Academic Foundation, New Delhi.
[16] Winning with Intelligent Supply Chain" prepared by Ernst and Young in 2007 for FICCI

S Raghunath & D Ashok (2003)[17] have brought out conspicuously the inequality in farmer's remuneration for select horticulture commodities through field study as provided in Table-1.6 below:

Table-1.6: Inequality in Farmer's Remuneration

	Tomato	Potato	Cabbage	Cauliflower	Banana
Price paid by end consumer (Rs. per kg)	8.20	12.00	9.00	9.50	12.00
Price received by farmer (Rs. per kg)	2.00	6.60	5.00	5.50	4.00
Price realization by farmer (as % of end consumer price)	24	55	56	58	33
Percentage mark up (price paid by end consumer to the price received by farmer)	310	82	80	73	200

Source- Source: Field Study by Profs. S Raghunath & D Ashok, (IIM Bangalore, 2003)

Farmer's Cooperatives and Clusterisation

A marketing organization typically performs an array of functions involved in reaching a product from the producing point to the consuming point (with value addition in terms of time, place and/or form utilities), whether raw, semi-processed, or processed. Co-operatives today are found in production, consumption, service, credit, marketing and other spheres of country's life. Cooperatives are organized whereby producer members benefit from a larger part of the returns associated with the value adding process, through better coordination of marketing functions of supply to match the demand. The cooperatives have been successful in processing of milk, eggs, sugar, paddy and cotton. Amul, a brand promoted by Gujarat Cooperative Milk Marketing Federation presents one such success story (Box-1.2)

[17] S Raghunath, D Ashok, IIM-Bangalore,(2003)-'Delivering Simultaneous Benefits to The Farmers and common Man: Time to Unshackle the agriculture Produce Distribution System', Google Books Book

Box-1.2

"AMUL": The Taste of India

AMUL is a brand name managed by Gujarat Cooperative Milk Marketing Federation Ltd.(GCMMF), which has federated more than 3 million milk producers. It started with Kaira District Cooperative Milk Producers Union registering in December 1946, as a response to exploitation of marginal milk producers in the small town of Anand (Gujarat) by traders and agents. Village level of cooperatives was established to organise small milk producers at village level. The success of dairy cooperative movement in Gujarat led to formation of Gujarat Cooperative Milk Marketing Federation (GCMMF) in 1973.Kaira District Cooperative Milk Producers Union Ltd., which had established brand name "AMUL" in 1955, handed over the brand name to GCMMF. Milk procurement during 2010-11 recorded on average more than 94 lakh kilogram per day. Today AMUL is the largest food brand in India as well as largest pouched milk brand in the worlds.

Source- NDDB website

The National Agricultural Cooperative Marketing Federation of India Ltd (NAFED) is an apex cooperative organization dealing in the procurement, distribution, export and import of selected agricultural commodities. NAFED is a central nodal agency for undertaking price support operations for pulses and oilseeds and market intervention operations for horticultural items such as onions, potatoes, grapes, black pepper and red chilies etc. The extent to which the farmer-producers will benefit (out of saving of avoidable waste) depends on the group-marketing practices adopted by the farmers in terms of value addition, functional vertical integration, high participation of members, and professional management and leadership. The Horticultural Producers' Co-operative Marketing and Processing Society Ltd. (HOPCOMS) in Karnataka is also a cooperative marketing and processing organization, successfully promoting the marketing of fruits and vegetables in the state. As per the Report of the Task Force on Development of Cold Chain in India (2008)[18], Maharashtra State Agricultural Marketing Board has done significant work to organize growers and producers into cooperative societies and small cooperatives into an organized set-up of association. Five of these

[18] Report of the 'Task Force on Development of Cold Chain in India' ((2008), Department of Agriculture and Cooperation, Ministry of Agriculture.

cooperatives are actively working in the state i.e; MahaGrapes (for Grapes, please see Box-1.3), MahaAnar (for Pomegranate), MahaBanana (for Banana), MahaMango (for Mango) and MahaOrange (for Orange).

Box-1.3

MahaGrapes

Ownership of MahaGrapes lies solely in the hands of the farmers, who have collectively contributed their share in the fixed and operating costs of MahaGrapes. Maharashtra State Agricultural Marketing Board (MSAMB) has done significant work to organize growers and producers into cooperative societies and small cooperatives into an organized set-up of association. MSAMB also provided support through consultancy services, packaging, technical services such as refrigeration and cooling. In addition, the entire liaison with Central Food Technology Research Institute (CFTRI) has been done by MahaGrapes. Assistance to MahaGrapes also came from the National Cooperative Development Corporation (NCDC), Agriculture and Processed Food Products Export Development Authority (APEDA), and National Horticulture Board. The government was not assigned any direct role in the decision making processes of MahaGrapes. It provides infrastructural and technical support for facilitation of standards including the EUREGAP certification for exports of grapes.

Source- MahaGrapes website

During the last two and half decades, a large number of self-help groups (SHGs) have emerged in the country. A nation-wide programme to link SHGs to the banking system was launched in 1992. Currently, there are three types of SHGs viz. (a) formed and financed by banks; (b) formed by other agencies but financed by banks; and (c) financed by banks using NGOs. However, micro-finance programme did not explicitly target the agricultural sector.

Agriculture Price Policy

Agricultural price policy has considerably influenced the marketing system of agricultural commodities in the country through duality of pricing for procurement as well as pricing for public distribution. Farmers face both production (yield) risk and market (price) risk. An institutional intervention in the agricultural price policy was introduced during the late sixties in the form of Agricultural Price Commission. It was set up to evolve a balanced and integrated price structure in the perspective of the overall needs of the economy. Initial emphasis of the Prices Commission was on reducing fluctuations in food grain prices and making available food grains for the Public Distribution System(PDS). The emphasis shifted from consumers to producers also during the mid-eighties. Minimum Support Prices (MSP), as one of the tools of the price policy, worked as a significant intervention measure in the functioning of the food grain markets. The procurement policy has been instrumental in inducing the farmers to overcome possible market risk to adopt new production techno-logy and thereby increase output. If there is a good harvest and market prices tend to dip, the government guarantees an MSP or floor price to farmers, which covers not only the cost of production, but also ensures a reasonable profit margin for the producers. Geographically dispersed growth of food-grain production, coupled with it's public procurement (through FCI & NAFED etc) and Public Distribution System (PDS), helped in food security and access to food. MSP is announced each year and is fixed after taking into account the recommendations of the CACP (Commission for Agricultural Costs and Prices).The production risk faced by farmers have been sought to be mitigated by various crop insurance scheme. Additionally, supply of subsidized inputs to farmers and subsidized distribution of food grains pushed down the real prices of staple cereals vis-à-vis per capita incomes, which improved economic access to food. These policy measures also enabled the organized sector and industry to keep their wage bills low, as cereals have a considerable weightage in the consumer price index.

Essential Commodities Act, 1955

State Governments often issue control orders promulgated under the Essential Commodities Act (EC Act) for agricultural commodities such as food grains, edible oils, pulses and sugar. These control orders relate to licensing of dealers, regulation of stock limits, restrictions on movement of goods and compulsory purchase under the system of levy. Though of-late restrictions on movement of goods has been done away with, yet due to other restrictive provisions of control orders issued under Essential Commodities Act 1955, large-scale private investment in storage and marketing infrastructure have not been very encouraging. It is important to make a distinction between an investor and black marketer/hoarders in the application of the EC Act, 1955 to encourage investment in storage and marketing infrastructure.

Global Organisations and Reform Issues

At the international level, disciplines on agricultural support and protection policies are at the center of the Doha Round of World Trade Organization (WTO) negotiations. Regional trade agreements are proliferating. Overarching policy issues are whether agriculture will be brought fully under liberalized trade rules through either of these venues and how the outcomes will affect the rural poor. The subsidy component has been criticized. Attention needs to focus on how the effectiveness of food aid can be maximized and its potential harms mitigated. Agricultural trade opportunities are also increasingly affected by technical regulations and standards, simultaneously with domestic markets seeing growth of vertically integrated firms. In each case, the technical regulations and standards pose challenges to market participation by smallholders just as high-value demands are creating potential new income streams.

As per Report of Asian Development Bank (ADB)[19] on "Agribusiness Infrastructure Development Investment Program (RRP IND 37091-02)" - agriculture- marketing in India is dominated by the public sector through Agricultural Produce Marketing Committees (APMCs), controlling the regulated markets (under the APMC Act) that operate as public sector monopolies over agricultural produce. It has further stated that 61% of agriculture produce is transacted through long and fragmented marketing chains and inefficient retail systems (i.e., traditional value chains) that prevent (i) competition from the private sector (ii) investment in value addition (iii) emergence of modern integrated value chains (IVCs) (iv) technology innovation. Furthermore, farmer access to markets is hampered by poor roads, rudimentary market infrastructure, and excessive regulation. The

[19] Asian Development Bank Report (2010) on "Agribusiness Infrastructure Development Investment Program(RRP IND 37091-02)".

outcome of public monopoly is large post-harvest losses, low value addition, and producers receiving a low share of the final consumer price. Continued low margins give producers no incentive to risk diversification, to innovate or to invest into production, which results in low productivity by both local and global standards.

Need for Market Reform

To sustain the growth of non-agricultural sector, resources have to be obtained from agriculture sector. Besides physical resources, agriculture also provides financial resources for investment in the economy. A good marketing system leads to the optimum use of resources and output management, while helping the farmers in planning their production in accordance with the needs of the economy. A smoothly functioning marketing system depends on the simultaneous availability and interaction of these components: efficient communications, transportation, and storage facilities; common grades and standards to facilitate trading at a distance; legal codes to enforce contracts; credit availability to finance short-run inventories and processing operations; and a market information system to keep all market participants, from farmers to consumers, fairly and accurately informed about market trends. An efficient marketing system facilitate in reducing intermediation, scaling down the losses arising out of inefficient processing, storage, and transportation thus helping farmers/producers reduce marketing costs while enhancing their income and standard of living leading to increased demand for industrial products. In view of liberalization of trade and emergence of global markets, it is necessary to promote development of a competitive marketing infrastructure in the country and to bring about professionalism in the management of existing market yards through reforms of the marketing system thus encouraging private investment in marketing infrastructure and supply chain. The next chapter deals with the steps undertaken in ushering major market reforms in the country for agriculture produce in this century. The chapter also brings out the need as well as objective for the study of credit for agriculture marketing including the research questions..

Annexure-1.1

NUMBER OF WHOLESALE, RURAL PRIMARY & REGULATED MARKETS IN INDIA

(As on 31. 03. 2011)

Sl.. No.	STATE/U.TS	NUMBER OF MARKETS			REGULATED MARKETS		
		Whole -Sale	Rural Primary	Total	Principal	Submarket Yards	Total
1	Andhra Pradesh	329	576	905	329	576	905
2	Arunachal Pradesh	6	63	69	16	113	129
3	Assam	405	735	1140	20	206	226
4	Bihar *	325	1469	1794	APMC Act Repealed		
5	Jharkhand	205	603	808	28	173	201
6	Goa	4	24	28	1	7	8
7	Gujarat	207	129	336	196	218	414
8	Haryana	284	189	473	106	178	284
9	Himachal Pradesh	42	35	77	10	38	48
10	Jammu & Kashmir	26	8	34	APMC Act not yet implemented		
11	Karnataka	504	730	1234	152	352	504
12	Kerala	348	1014	1362	APMC Act not enacted		
13	Madhya Pradesh	241	1321	1562	241	276	517
14	Chhattisgarh	2	1132	1134	73	112	185
15	*Maharashtra*	*880*	*3500*	*4380*	*299*	*581*	*880*
16	Manipur	20	98	118	APMC Act not enacted		
17	Meghalaya	35	84	119	2	-	2
18	Mizoram	10	105	115	APMC Ac not implemented		
19	Nagaland	19	174	193	18	Nil	18
20	Orissa	398	1150	1548	45	269	314
21	Punjab	488	115	603	139	349	488
22	Rajasthan	431	312	743	129	302	431
23	Sikkim	7	12	19	1	-	1
24	Tamil Nadu	300	677	977	277	15	292
25	Tripura	84	554	638	21	-	21
26	Uttar Pradesh	584	3464	4048	249	356	605
27	Uttarakhand	36	30	66	25	33	58
28	West Bengal	279	2925	3204	43	641	684
29	A & N Island	0	0	0	APMC Act not enacted		
30	Chandigarh	1	0	1	1	-	1
31	D & N Haveli	0	8	8	APMC Act not enacted		
32	Daman & Diu	0	2	2	Reported	Nil	
33	Delhi	30	0	30	8	13	21
34	Lakshadweep	0	0	0	APMC Act not enacted		
35	Puducherry	9	0	9	4	5	9
	Total	6539	21238	27777	2433	4813	7246

Source- Directorate of Marketing & Inspection (DMI), Ministry of Agriculture