CHAPTER 2

BROAD OVER VIEW OF MARKETING OF PERISHABLE AGRICULTURAL COMMODITIES

The vertical linkages in the agricultural commodity market have been evolving over a period of time. This has resulted in simultaneous action in three areas: evolution of commodity and location specific linkages between producers and agroindustry, evolution of supply chain models integrating technological advancements and promotion and regulation of mechanisms with particular reference to contract farming (Ramesh Chand, 1998). New experiments are taking place in the Indian agribusiness sector with many corporates designing newer and more innovative formats for backward integration. The contract farming initiative began in corporate India with Pepsico engaging in contract farming with tomato farmers (Ray, 2005).

However backward integration initiatives started way back in the 1950s in the cooperative dairy sector in the country with the Gujarat Cooperative Milk Marketing Federation (Amul). Based on the three tier Anand pattern of cooperative development, the dairy supply chain in Gujarat was reorganized in such a manner that uncertainties in production and procurement of milk were reduced. Today many corporates are looking at the rural sector for business opportunities and in this process entering into contract with numerous farmers, self help groups and primary cooperative societies. Not only Indian agribusiness houses, but many multinationals are also engaged in contract farming (Satish Chander, 2006). For instance Cadbury for cocoa, Pepsi for tomatoes, chillies, potatoes and groundnuts, Hindustan Lever for tomatoes, chicory, tea and milk, ITC limited for tobacco, wheat, soybeans, oilseeds, coffee and spices, Marico industries for safflower and sunflower and Cargill for seeds (Harsh et al, 2003).

We shall discuss a few successful business models of some firms who have devised innovative formats for agribusiness to deal with the challenges arising out of supply chain inefficiencies and production (quantity and quality) uncertainties. The idea is to present a logical framework to understand why a particular initiative was taken, what factors helped that initiative work and sustain over time and what are the possible challenges that the firm may face in the future to manage such a business format.
2.1. Perishable agricultural commodities in General

2.1.1. Gujarat Cooperative Milk Marketing Federation Ltd.

GCMMF was the final result of a unique experiment for an alternative marketing setup initiated by Sri Vallabhai Patel and then conceived and implemented by Mr. Thribhuvandas Patel, a local farmer and social activist and Dr. Kurien. It started on a low profile as the Kaira District Cooperative Milk Producers Union Limited which then grew to form the GCMMF (Manikutty, 2002). The most important feature of the milk cooperative system of Gujarat commonly called the Anand model was that they were run not by a separate bureaucracy with its own vested interests, but by the member farmers themselves, with all the major decisions taken by the latter alone. This system had a three tiered structure.

State Marketing Federation
(Marketing, Strategic planning and investment)

| District Milk Processing Unions
(Transportation and processing) |
| ← | Village Cooperative Societies
(Procurement of the product) |

Milk producers

Each of the levels had a substantial amount of autonomy. Price to be paid to farmers is decided by the village level societies and in turn they are paid at the decision of the District unions. A pattern similar to the Anand pattern was built in other states as well under the Operation Flood programme launched by the government. The operation was coordinated by the National Dairy Development Board (NDDB) a body formed for this objective (Manikutty, 2002).
The main stakeholder of GCMMF was the farmer member for whose welfare it existed. The main objective is to carry out activities for the economic development of agriculturists by efficiently organizing marketing of milk and dairy produce, veterinary medicines, vaccines and other animal health products, agricultural produce in raw and/or processed form and other allied produce. This was to be done through common branding, centralized marketing, centralized quality control, centralized purchase and pooling of milk efficiently. The business philosophy of GCMMF was to serve the interests of milk producers and to provide quality products that offer the best value to consumers for the money spent. The biggest strength of GCMMF was the trust it had created in the minds of its consumers regarding the quality of its products and its guaranteed purity.

Even at the time of formation, GCMMF had three major products: liquid milk, butter and milk powder under the brand of Amul. Later many derivatives were evolved like for instance in milk alone, full cream milk, semi toned milk and fully toned milk. The derivatives like cream and butter were also marketed. At present there are many products like cheese spread, milk sweets, dairy whitener, ice creams, chocolate based beverages, buttermilk etc. It also diversified into non milk products in 1988 like edible oils by organizing groundnut farmers into cooperatives under the brand of Dhara. This was done as a market intervention programme but the success was limited. In the late 1990’s GCMMF undertook distribution of fruit based products on behalf of NDDB under the brand name of Safal. The products included a tetrapack mango drink, tomato ketchup and a mixed fruit jam (CMIE, 2003).

Except ice creams, chocolate and chocolate based beverages, Amul brand was the market leader in each and every one of its products. Its main sources of competitive advantage were low costs due to the elimination of middle men, lean organization, its scale and scope of operations and its strong brand name which stood for purity and quality.

The Anand pattern cooperatives was the first organizational approach of its kind in agriculture commodity sector that attempted development of dairy sector in an integrated manner. APC went on to prove the extent to which modern dairy technology and institutions can be utilised to minimize the exploitation of small producers in free but imperfect markets,
enhance their share in consumer rupee and at the same time ensure the all round development of a viable and efficient dairy economy (Rao. 1990). The totality of the treatment given to the commodity is evident vertically in as much as it encloses the entire gamut of operating intermediate between primary producer and final consumer, and horizontally umbrella the provision of needed inputs, extension and services (Peterson and Wysocki, 1997). The structure of APC model is such that even though base production is on a very small scale, the economies of scale for various operations are made directly accessible.

### 2.1.2. Mahindra Shubh Labh Services (MSLS)

This is a wholly owned subsidiary of Mahindra and Mahindra and was launched in 1999-2000 as a one stop shop for providing total farm solutions to the farmers. The underlying business objective of MSLS was first to be a hub for commodity trading and second to provide farm inputs to farmers. It was a reciprocal dependency between Mahindra and Mahindra on the farmers for the supply of quality agricultural produce and demand for quality farm equipments, and of the farmers on Mahindra and Mahindra for the supply of quality farm equipments and extension services and for assured market for farm produce. Mahindra and Mahindra, through Shubh Labh Services also started generating revenue from farm consultancy fees and equipment rentals. A part of this money was to be shared with the franchisees of Shubh Labh services called the Mahindra Krishi Vihars. In less than three years of its operations MSLS was able to generate surpluses on both fronts- input services and extension facilities, and commodity trading (Bhattacharyya, 2006). The model was refined further on account of redefining of spatial units for operations by MSLS. The franchisees (Mahindra Krishi Vihars) were allowed to have numerous sub franchisees on a ‘hub and spoke’ model at sign up fees. This helped MSLS in its outreach to more and more farmers in different areas and in different commodities (Vivek et al, 2005).

MSLS was able to streamline the supply chain for Mahindra and Mahindra as it became a one stop shop for both sale of farm inputs and purchase of farm produce and thus eliminated a number of intermediaries from the supply chain (ET series, 2002). As a result of the shortening of the supply chain, they were able to pay a relatively higher price to the farmers.
for the output than the market price which enabled them build a strong base of farmer for its commodity trading businesses. The extension services provided by MSLS helped in information dissemination on best farm practices among the farming community and the training workshops helped in empowering farmers in adopting modern farming practices (Vivek et al, 2005).

Its business model is a hub-and-spoke model where the hub is at a centrally located place i.e., the Mahindra Krishi Vihar. The spokes are located at a radius of 25 kms from the hub for extending the reach to interior rural networks and for easy accessibility. Standard layout and designs are followed. MSSL has a tie up with different vendors for supply of material. The franchisee pays an up-front fee and also an annual service fee, depending on the turnover. MSSL provides the franchisee the use of the brand name, technical manpower support, timely supply of inputs, farm finance tie-up etc. It is the first concept of its kind that caters to all farming needs under one roof. The IT hub and spoke model of MSLS was not very successful due to infrastructure bottlenecks and high capital investments. However, now given the success if ITC’s e-choupals, MSLS would also try to revamp its IT operations and offer more computer based services to the rural community.

(Vivek et al, 2005)

2.1.3. MILKFED (Punjab State Cooperative Milk Producers Federation Limited)

Milkfed was established in 1973 on the lines of the three tier Anand pattern of cooperative development under Operation Flood. It sells its products under the brand name Verka. Since inception, this cooperative has been working to meet its twin objective to provide

![Diagram of MAHINDRA KRISHI VIHAR network]
remunerative milk market to the milk producers of the state and to provide technical inputs to milk producers for the enhancement of milk production and quality. Realising the importance of a tight and streamlined supply chain, a tightly knit backward linkage was built in the form of a three tier cooperative structure. It is a three tier structure comprising of milk producers cooperative societies at the village level, which unite to form milk unions at the district level, which then federate to form the state marketing federation at the apex level.

For any cooperative to keep its operations afloat, it has to ensure that its procurement base of member farmers doesn’t get eroded over time. Milkfed has built its business operations on certain robust fundamentals(Vivek et al, 2005). First, it has worked to increase its marketing efficiency by designing a streamlined supply chain linking the producer farmers, the processing units and the marketing agencies through a three tier federal structure. Second, it has tried to develop a low cost dairy model in order to make it difficult for other players to enter into the fray. For instance, through its fodder seed development programme it has tried to keep input costs low on the one hand, and attempted to tap higher trade margins on the other. Third, through a series of dairy extension programmes, Milkfed has increased its basket of services to its member farmers. For instance, fodder and feed services, breed management services, technical inputs, health care and vaccination services are a few of the facilities that Milkfed offers to its member farmers at cost effective rates. By providing these services at the farm gate, Milkfed saves a lot of transaction costs for its member farmers. Last, Milkfed has been able to add value to dairy by installing modern processing units. This value addition has enabled Milkfed not only to graduate to higher levels in the value chain in terms of product development, marketing and branding of milk products but also ensured a higher rate of return to its member farmers on their dairy operations.
Over the last few years, India has emerged as one of the largest producers of milk in the world. Operation flood was a rural development programme worked to create an integrated national market and established institutions to cost effectively procure, process and market milk and milk products. It worked through small milk producers cooperatives (Mukesh Varma, 2006).

Operation flood offers some very crucial lessons for policy makers (Vivek, 2005a). The first is inclusive growth. By establishing dairy cooperatives at grass root levels, it brought the milk farmers into its ambit, and placed control in their hands to decide what and how much to produce and sell. This market oriented participatory approach to development led to many grass root level innovations in the designing of the supply chain in the dairy sector.

Secondly efficiency is the key story to success and thus streamlining and strengthening of the supply chain holds paramount importance. With the setting up of a strong supply chain network, leakage from the system to middle men can be checked and more returns can be realized for the producers who are the ultimate stakeholders of the system.
Thirdly for higher price realization one needs to graduate from simple low value commodities to high value added, processed products. *Marketing* holds the key to ensuring that the products are available at the right place, at the right time, at the right price. *Brand building* is an essential exercise for all dairy companies to exploit the full potential of the dairy value chain.

Finally the most crucial lesson of Operation Flood to all policy makers is that growth and development should be *market oriented and market led*. By developing the market forces, and ensuring healthy competition among different players in the market, a robust and transparent system can be developed, which benefits both the producers and the consumers by ensuring quality products at the “value for money “ prices(CMIE, 2003).

One of the major pitfalls noticed in Operation flood was its *success in limited regions*. The cooperatives having a large rural base resulted in electoral forces and not market forces guiding the decision making. The *source of finance was limited* and comprised mainly own retained earnings or on equity from member farmers since they cannot raise equity from the market. This resulted in resorting to government loans and grants for meeting financial needs for technological upgradation and innovation. This increased *government interference in decision making*. *Politicization of cooperatives* caused a plethora of problems like overstaffing, low capacity utilization, weak market orientation and poor financial controls(Vivek, 2005a). Government dictated input output prices cause inevitable distortions in the pricing of products and adversely affected the financial health of the cooperatives. Inability to meet the stringent sanitary and phytosanitary standards for exports reduced remuneration. The recent “Clean Milk Production(CMP)” campaign of NDDB is a step in total quality management in the dairy products.

### 2.1.5. ITC e-CHOUPAL:

ITC limited is undisputedly one of India’s most professionally managed companies. ITC’s International Business Division(ITC-IBD) has engaged in trading of a wide range of agri commodities and aqua foods. It holds a principal position in a number of international
markets and is backed by sound technical expertise, strong proprietary knowledge of the Indian farming system and competencies to cater to customer specific requirements (Vivek et al, 2005).

The ITC IBD started the e-choupal model of vertical coordination where they eliminate non value added stages in the supply chain to reduce the cost of the agricultural commodities. The rationale behind e-choupal was to resolve the problem associated with small and fragmented farm holdings, weak rural infrastructure, non value adding supply chain intermediaries, lack of quality and real time information. There are three commodities where e-choupals have been initiated: soy choupal for soybean, planter choupal for coffee and spices and aqua choupal for marine products especially shrimps and prawns (Buhler, 2006).

The e-Choupal model promoted by ITC is specifically designed for the farmer’s benefit. It is construed to overcome the challenges owing to the unique character of the Indian agriculture. In order to face the rising challenges related to the agriculture sector, ITC has set up small Internet kiosks at the village level to provide farmers real time market and pricing related information and highlighting arbitrage opportunity in sales between various Mandis. It is involved in providing information related to prices, availability of inputs, weather data and other information related to the agricultural sector. Local level lead farmers called “Sanchalaks” who transmit back to the company, information that enables ITC to respond effectively to procurement challenges, man these kiosks. ITC is also involved in providing online extension services. ITC believes that their intervention in the supply chain has permitted farmers to increase their realizations on crop sales, from 10% - 15% in relation to what was realized earlier. Further, the company has succeeded in generating savings of 3% - 4% of procurement cost allowing ITC to incrementally improve its competitive position in national and international commodity trade. This model is an excellent example of information technology working towards the benefit of both farmers and marketer (Business India, 2001). We will discuss in detail ITC’s aqua choupal.
ICT’s Aqua-choupal in Andhra Pradesh:

This is a web-based initiative which offers shrimp farmers information, products and services to enhance farm productivity, improves farm gate price realization and cuts transaction costs. Farmers can access the latest local and global information on weather, scientific farming practices as well as market prices at the village itself through the web portal developed for the aqua choupals. Aqua choupal not only provides timely, real-time information but also facilitates supply of high-quality farm inputs at the doorsteps of the farmers. ITC planned to launch aqua choupal in 2000, but could do it only in 2003 after studying all the aspects of the trade in marine products, the supply chain dynamics and the demand patterns in the domestic and export markets (Vivek et al., 2005). The first aqua choupals were launched in Andhra Pradesh.

There are three bases on which aqua choupals are built on: logistic base, identity base, and traceability base. The logistics base helps in building the supply chain. Aqua choupal produces the quality of shrimps and prawns as demanded by the consumers. So the identification of the importing country and the supplier farmers whose products are to be processed has to be initiated at the start of every operating cycle. The starting point for production is the consumer and as per the specifications laid down by them, shrimps and prawns are grown and procured from the farmers. Only when the consumer gets the products of the desired specification, with value addition like processing, packaging, and branding, along with all the other requirements of food safety such as traceability, labeling, etc., will it get back to trade again. Thus by only maintaining consistent quality can any agribusiness firm develop a sustainable relationship with the buyer and ITC has learnt this lesson quite early on in its business operations in marine products (Rajendran and Venugopalan, 2002).

The products are to be checked in a certified, accredited laboratory and should contain no infectious elements. The quality of the input by the farmers should also be of a good quality and for this the farmers should be trained and guided. ITC effectively uses modern information technology through aqua choupal to spread awareness among the farmers about the best global practices for shrimp cultivation and the food safety standards and ways to
comply with them. ITC has also established a laboratory for testing shrimp samples. ITC labs have one of the best PCR technologies in India. The testing procedure is more transparent, cost effective and helped in reducing the farmers risk to a large extent in the initial stage of production.

ITC through internet kiosks provide farmers with real time market data through pricing relate information, arbitrage opportunity in sales, availability of inputs, weather data and other information related to the agricultural sector such as farm practices, handling and storage techniques and packaging details (Vivek et al, 2005). There are sections on weather information, market information, oil testing, farmer information, state and central government schemes, news, questions and answers and FAQs, feedback etc. ITC through its aqua choupal model and its generic e choupals has demonstrated that use of modern technology can lead to increase in efficiency by removing the value destroying stages in the supply chain. The three important core processes critical in establishing effective agriculture-market linkages followed by ITC are as follows: building effective backward linkages, conduct and performance of markets and marketing institutions and demand generation through value addition. Aqua choupal leverages information technology to virtually cluster all the value chain participants, delivering the same benefits as vertical coordination does in mature agricultural economies. Aqua choupal makes use of the physical transmission capabilities of current intermediaries – aggregation, logistics, counter party risk and bridge financing – while disintermediating them from the chain of information flow and market signals (Pilkauskas, 2001).

The village internet kiosks are managed by farmers who have been represented in the aqua choupls as prathinidhis who are the brand ambassadors of aqua choupal in the village community. They work to enable the agricultural community access ready information in their local languages and purchase farm produce from the farmers doorstep. The farmers sell their produce to these prathinidhis who in turn assure a fair price to them. As a direct marketing channel virtually linked to the mandi system for price discovery, aqua choupal eliminates wasteful intermediation and multiple handling. Thereby it significantly reduces transaction costs. While the farmers benefit through enhanced farm productivity and higher
farm gate prices, ITC benefits from the lower net cost of procurement despite offering better prices to farmers, having eliminated costs in the supply chain that do not add value.

The problems encountered while setting up and managing the e choupals are primarily of infrastructural inadequacies, including power supply, telecom connectivity and bandwidth, apart from the challenge of imparting skills to the first time internet users in remote and inaccessible areas of rural India. The model is an example of information technology working towards the benefit of both the farmers and the marketer.

(Vivek et al, 2005)

2.1.6. National Egg Coordination Committee

It is the sign of the times: the copy line has changed -" Sunday Ho Ya Monday Roj Khao Indian Ande!". "Eating Indian Eggs Is An Eggciting Idea"

NECC was born in Pune in 1982 when a group of farmers came together to form an association. Membership fees to this day are Rs. 1 only and there are 25,000 members presently. In the days preceding the setting up of NECC, the scenario looked quite bleak. The middlemen controlled the trade and sucked away most of the margin in the business. This left the farmer with unremunerative returns in his business. There were a host of problems in the
'70s and the early '80s: rises in the primary input costs such as medicines, feed, electricity, taxes etc. coupled with domination by the middlemen. In 1981, when the egg prices fell drastically and over 20,000 marginal poultry farmers lost their only source of livelihood, a bunch of farmers, motivated by the late Mr. B V Rao (the father of the poultry industry in India) started a mass movement - they traveled through the length and breadth of the country holding over 300 meetings with traders and farmers. The concept was - "My egg, my price, my life". And, NECC was born on the 31st of May, 1982. Today, the poultry industry has grown and contributes more than Rs. 100,000 million to India’s GDP (India Infoline, 2005).

Funding of the activities of NECC is very informal - members contribute voluntarily for gathering resources for it's functioning. Often, farmers give 50 paise per chick to NECC. Between 1981 and 1989, NECC received Rs. 40 million from farmers exclusively through voluntary donations! The simple law of demand and supply determines prices in the poultry market. The important egg markets in India are Vijaywada, Hyderabad, Nellore, Ludhiana, Ambala, Ajmer, Kolkata and Delhi.

Activities of NECC:

1. **Price declaration**

2. **Market intervention through NAFED and Agro Corpex India Limited** – NECC arranges for the eggs to be lifted during religious festivities when consumption falls and sent to Agro Corpex to put in cold storages during such times.

3. **Advertising, promotion, publicity and consumer education** - The consumption of eggs is increased through various means like films, exhibitions, poultry melas, exhibitions, van publicity and distribution of boiled eggs. Eggs are included in the mid-meal scheme in Tamil Nadu. They participate in the Pune International Marathon and provide boiled eggs to the runners. They conduct competitions like "healthy body competition" with the Rotary Club and provide literature to gynecologists. They have come out with brochures and leaflets that contain medical information about the benefits of eating eggs.

4. **Extension activities** - Reviews and publications

5. **Market research**
6. Market identification and development:

- **Satna project**: This was an effort to find out the effect of availability of eggs on the demand in an area. A depot was opened and eggs were brought in from Andhra Pradesh to tide over the unavailability of eggs in the area. After 6 months, the consistent supply was quietly removed and left to the local authorities. It was seen that the natural demand did not fall and traders started making arrangements to procure eggs from other areas (www.indiainfoline.co.in).

- **Egg cart scheme**: Under this scheme, NECC designed and sold egg carts to unemployed young men. These people cooked and sold eggs as nutritious mini-meals. It was later found out that each cart was selling up to 300 eggs every day on average. The scheme has been very successful in Madhya Pradesh and is being extended elsewhere. The beauty of this scheme is that it opens up new channels of selling of eggs and makes eggs more accessible to the common man. Banks provide 90% of the funding and the rest is by the operator.

7. Preparation and submission of papers to the government

NECC is organised in this manner: there are 113 local committees, 24 zonal committees in all the important poultry markets and an executive committee at the apex level. The members are elected democratically every two years. It is through these structures that prices are declared and maintained. To enforce the price declarations more effectively, NECC promoted **Agro Corpex India Limited**. This is managed and owned entirely by farmers. To encourage exports, NECC gives subsidies. Earlier, the amount was Rs. 25 per 360 eggs, which has since come down to Rs. 10 due to paucity of funds. Today, approximately 1-2% of the egg production in the country is exported. Today, 75% of eggs and meat are consumed in the urban areas. NECC understands that it is the rural markets that are going to be the key to the future of the egg industry in India. Recently, NECC has been instrumental in setting up egg powder plants in Hyderabad for the production of white & yellow egg powders (www.webindia.com). These are basically for the export markets. The target that NECC has set for the year 2015 is to increase the per capita consumption of eggs from 36/year now to 180/year, which is the level recommended by the National Institute Of Nutrition, ICMR. They also want to increase the meat consumption to 10.8 kg per year.
The strong position that the poultry is in today can be understood from the following facts and figures: India is the fifth largest producer of eggs in the world. It employed about 5 lakh people four years back. Today, the figure must be around 12 lakhs. Egg production is growing by 4-6% every year whereas broiler production is growing by 8-10%. It is being estimated that this industry can possibly bring in Rs. 2000 million in foreign exchange in the next five years. India is all set to produce more than 40,000 million eggs this year, up from 30,000 million in 1999. Poultry has a great role to play in employing huge number of people. If there is to be a unit increase in per capita consumption of eggs, then it will create 25,000 new jobs!

NECC is a pioneer in its own right. The poultry industry in India is what it is because of its concerted efforts. However, all is not well for the poultry industry. Not all states have been contributing to the effort. The four southern states and Maharashtra together contribute a mammoth 55.9% to the production of eggs. There are many states where the enthusiasm seems missing. There are shortcomings in NECC’s price stabilization efforts. The egg powder plants are not working to their full capacity. However, it is undeniable that NECC is a force to reckon with and that it is the voice and the soul of the Indian egg industry.

2.1.7. Weikfield Agro Products Limited

India presents a lot of opportunities for mushroom growers with huge farm output which serves as the substrate, climatically necessary conditions such as humidity and heat and forests, islands, coastal farms and dense plantations. The agri-wastes that are usually used in India are straw, bagasse, banana leaves/stems or any wood/leaf/straw based material. Mushrooms are packed in slice/whole forms, fresh/dry, canned, frozen, as canned soups, ready to make soup powders, in pickles and other preserves (Directorate of marketing, 2006).

Among mushrooms, there is a gradation system – oyster mushrooms are first quality, button mushrooms and shiitake are second quality whereas straw and Jews’ ear are fourth quality mushrooms. Oysters command greater prices and are more productive on the field than button mushrooms. They grow more rapidly too. At Rs. 2 to 6 per kg, they are perhaps one of
the cheapest to produce. However, there is not much of an export market for the oyster mushrooms since there is no consistency in supply. In India, the production grew from 4000 tons in 1985-'86 to 25,000 in 1994-'95. The world demand is to the order of 2.7 million tons whereas the production is only 2 million tons. Therefore it is no wonder that companies like **Weikfield Agro Products Ltd.** are entering the fray and betting on a big opportunity for growth and profitability.

Weikfield Agro Products Ltd. is the latest project of the 46-year old Weikfield Group which has been set up as a 100% EOU in collaboration with Franklin Mushroom Farms Inc., Conn., USA, one of America’s leading mushroom growers and processors (India infoline, 2005). Weikfield Agro Products Ltd. has two divisions: [a] Processed Mushroom Division (PMD) [b] Processed Vegetables & Fruits Division (PVFD)

**Processed Mushroom Division (PMD):** This division was conceived in the year 1995. All the composting and growing processes and protocols are carried out under the strict supervision of International Dutch mushroom experts deputed by their collaborators. Another exclusive feature of this project is the state-of-the-art laboratory to produce top quality spawn that ensures 100% in-house quality control on all aspects of mushroom growing and processing. The strict adherence to such international standards has resulted in the plant getting the USFDA Certification which ensures that the products manufactured will conform to the highest international standards at all times. A number of training programmes have already been carried out by internationally acclaimed experts in Human Resource Training, and continue to be held in order to ensure that every member of the 350+ strong Weikfield Agro team is fully conversant with the critical nature of his tasks and duties. This training is one of the pre-requisites towards optimum achievement of quality and total quality management (TQM) in the plant. Another important aspect that is treated with great seriousness is the maintenance of high standards of plant sanitation and manpower hygiene as per US FDA HACCP standards. Full reliance is placed on detailed sanitation & hygiene procedures & protocols established by both international and local experts, to ensure that every aspect of plant operations is carried out at the highest standards of hygiene possible and available in the country (Ikerd, 1995).
The major consumers for mushrooms across the globe are Poland, Russia, Germany, France, England, America, China and Japan. There are some important parameters in the business of mushroom selling: taste, texture, colour, flavour, nutritive value, appeal, digestibility and shelf life(Graemesait, 2006). At Weikfield, the mushrooms go through processes of gradation, blanching, sterilization and stemming. Weikfield have come out with their own brand of mushrooms- "First Choice".

**Processed Vegetables & Fruits Division (PVFD):** PVFD is equipped with state-of-the-art automated equipment for the processing of a large variety of fruits and vegetables with minimum manual intervention. A large range of products including Sauce, Fruit Pulps, Juices, Pickles, Chutneys, Ready-to-eat-food Specialties, Marinades etc., can be manufactured in this very versatile plant which has been designed by in-house experts with over 20 years experience in the processed food industry(Anandavally, 2006).

**PMD/PVFD SYNERGY:** Having a fruit & vegetable processing facility under the same roof as the Mushroom Processing Unit also provides WAPL a unique in-house capability to produce a variety of mushroom products like Mushroom Salads, Marinated Mushrooms, Mushrooms in different types of sauces including Curry Sauces. These have a growing demand in all the developed markets of Europe, USA, Canada, Japan etc. Weikfield has been promoting it's products in the following way. It has tie-ups with newspapers to bring out regular articles. It's booklet highlights 100 recipes that can be made with mushrooms. Weikfield involves itself with exhibitions and fairs. It promotes mushrooms with mobile kiosks. It exports more canned mushrooms (marinated in sauces and pickles) in the export market while it sells more of fresh mushrooms in the domestic market. The US accounts for 70% sales whereas the European Union and the Middle East accounts for the remaining 30%. Sauces are mainly sold in the domestic market and only 5% of sales is in the form of exports - mainly soya and chilly sauce. Weikfield is getting into tie-ups with pizza chains abroad like **Little Caesar’s** to ensure a regular source of sales. Weikfield grows 10 tons of mushrooms per day. For the sauces, it procures tomatoes from Nasik. Mushroom marketing faces some problems in the domestic market:- Lack of awareness, Low per capita consumption and Low
shelf life for fresh mushrooms. On the other hand, in the export market, the problems are that of dumping and low cost producers abroad. Weikfield’s sales grew by 25-30% last year. According to a product manager with the company, the future prospects for this industry is bright(Ashok Shah, 2006). This is mainly due to a lifestyle revolution taking place in India. Mushrooms are a time saving food and nutritious too. There is scope for immense value addition in this food. All in all, the future prospects are good!

2.2. Marketing of non perishable commodities

2.2.1. Contract farming in Chicory

The marketing of chicory mixed coffee in India started in 1950’s by M/s. Brooke Bond India Ltd which later merged with Hindustan Lever Limited. In the 1950’s while initiating its activities BBIL started contract farming with farmers in Jamnagar and later spread to other areas in Gujarat, Uttar Pradesh and Tamilnadu. A study was conducted to understand the dynamics of contract farming in a situation wherein possibilities of exploitation of farmers are high due to specific usage and limited demand of the product.

The limited usages of chicory have also influenced the linkages between the chicory producers and manufacturers of coffee. Its cultivation in India started on contract basis mainly because of lack of large open market and lack of feasibility of production of seeds in India. The situation has remained unchanged with total demand continuing to be shared between the manufacturers of coffee products and retailers of coffee. Attempts to produce chicory seeds in India have more or less failed. These two reasons have compelled the chicory growers to remain linked to the buyers through a contract(Vaswani et al, 2003c). In spite of prevalence of contract farming the situations of supply surplus are more common than the situations of supply deficits. Contract farming has not been able to prevent yearly variations in supplies particularly supply surpluses which in turn impact yearly fluctuations in its area under cultivation, productivity and marker price(Biswa ranjan, 2006). In fact many times chicory traders have resorted to manipulation of supplies to their advantage through supply of excess chicory seeds. These circumstances make contract farming of chicory a
challenging task for the farmers, intermediary traders, chicory processors and coffee manufacturers. Chicory is traded in the form of dried roots which are obtained after slicing and sun drying the fresh chicory roots or chicory powder obtained after roasting and grinding the sun dried roots.

Alternative marketing channels in existence in chicory trade.

**Channel I**

![Channel I Diagram]

**Channel II**

![Channel II Diagram]

**Channel III**

![Channel III Diagram]

**Channel IV**

![Channel IV Diagram]


In channel I farmers enter into contract with HLL for the supply of a fixed quantity of dried roots of chicory which are then processed by chicory processors and HLL produces chicory blended coffee. In channel II, farmers enter into contract with local processors who in turn
enter into supply contract with coffee manufacturers. In channel III, there is no involvement of contract farming but is an open market channel. Channel IV is managed by various types of cooperatives where farmer association with them were to a large extent on voluntary basis and to a lesser extent through contract farming. In the absence of own chicory processing capabilities, the cooperatives had little leverage in bargaining on behalf of the growers.

The chicory contract farming can be best described as a type of ‘production contract’. However its market dynamics which are characterized by limited and captive demand have a strong influence on the terms and conditions of the contract and its operationalisation on the ground. HLL has been maintaining its contract with the farmers for more than 25 years.

The relationship between the firms and the farmers seems to revolve around three parameters: credibility of the agent, open access to the firm through agents to communicate and resolve problems if any and extent of facilitation by the agent. The major provisions of the contract signed between the firm and the farmer include quantity, quality and price. It was observed that even if open market prices fall, the firms pay the prices as per the terms of the contract. Despite substantial fluctuations in prices in the open market, both upward and downward, majority of farmers keep their supply commitments with the firms. The firms also strictly adhere to the terms of the contract and the farmers are free to dispose off their surplus produce in the open market (Ferrigno, 2006). But when the prices of chicory roots are higher in the open market, the firms generally pay the contracted price only. Farmers associated with HLL were found to receive some price compensation in case of market price being much higher than the contract price. They receive the original contract price on supply of produce and receive additional compensation at a later date.

Farmers associated with HLL generally receive payment within a month as against within 10 days from other processors. The farmers also seem to appreciate the facility of receiving payment through multiple instruments such as demand draft, mail transfer and cheque from HLL which also eliminate possibilities of intermediaries siphoning off even a fraction of the price paid to the farmers. Processors were found to make payments in cash. Penal provisions were also provided in the contracts. Quantum of delivery is fixed in accordance with the
quantity of seeds supplied. HLL pays at the rate of 90% of the contracted price for the produce actually delivered. In the case of recurrence of shortage supplies, the production contract is discontinued. The processors are found to recover the cost of seed in proportion to the shortfall in supply of chicory roots. Regarding quality of produce, deductions are made in quantity procured in accordance with quality of produce. The farmers seem to rely more on the relationship or trust with the agent or firm rather than the terms and conditions spelled in the contract document. The contract farmers were found satisfied with the system owing to payment by firms within a short period and payment of full amount, less problems with the firms, supply of seeds free of cost and non reduction in prices even when open market prices decline.

Though contract farming in chicory is in vogue for more than 25 years, farmers do not have any countervailing power to bargain with the processing firms with regard to fixing of price and other terms of the contract(Directorate of Marketing and Inspection, 2003). Generally, the agents communicate the predetermined prices of chicory roots to the farmers. A major cooperative intervention was made between 1986 and 1992 in marketing chicory roots after exorbitant increase in chicory prices without any benefit to most of the farmers. Vaswani et al(1992) observed that the failure of cooperative interventions and institutions was due to competitor’s counter strategies, lack of marketing skills in cooperatives, conflicts within cooperative channel and no control/access to consumer markets. The most important grouse of the farmers for discontinuing contract production was lower prices of chicory. Even some chicory processors confided that even though they feel that the prices paid for chicory roots are very low, they are unable to revise them since they are minor players in the field. It is common knowledge that the final price of chicory is much higher when it reaches its consumption markets.

Chicory is a typical product with only single use i.e., blending with coffee. Value addition in chicory takes place in two ways, firstly in its conversion to chicory powder and relatively larger value addition takes place in the process of its blending with coffee. It was found that the real price for chicory is its blended prices and should form a benchmark for making comparisons and drawing inferences. When coffee prices increased sharply it was found that
most of the firms resorted to a comparatively steep hike in the prices paid to the farmers after specifying a lower amount in the contract. This may be due to fear that farmers may leave them if not paid reasonably or because of the opportunistic behaviour of coffee marketing firms not to lose chance of making high profits from chicory.

The average price paid to farmers has remained highly static with marginal fluctuations on either side. Continuous cultivation of chicory forced on to the farmers through the terms and conditions of the contract farming is leading to declining yields coupled with rising cost of cultivation. The pressure is also building on the contracting firms to enhance the price payable to the farmers to improve economic viability of chicory production. HLL has started to identify alternate locations in other states rather than solving this problem. This has led to a sense of insecurity among the farmers and raises the ethical question regarding the long term commitment of these firms to the farmers after drawing upon the natural potential of their land and other resources (Datta, 2004).

Certain possible interventions have to be tried out to sustain chicory farming. The contracting firms have to make price offers more attractive by a fresh assessment of the costs involved in chicory cultivation and its price prevailing in the terminal/consumption markets. The basis for working out the chicory price should shift from its cost of production to the price of blended chicory. The firms may also consider revision of these prices at periodical intervals. The firms which buy chicory as dry roots should compensate the farmer for extra expenditure in drying the roots and maintaining quality.

In order to maintain land fertility and in turn productivity, farmers may be allowed to break away from chicory cultivation and return to its contract farming within a reasonable period of two years. This will help in overcoming their fear of contract termination, maintain productivity of land as resource and will reduce cost of production with improvement in crop productivity. The duration of the contract can be extended with the option of reviewing the price every year, making the contract flexible to allow genuine concessions for situations which are beyond the control of farmers (Dixie, 2001).
In the Indian economy, the textile sector occupies a place next only to agriculture. India is the world’s largest exporter of cotton yarn with one fourth share of the world market. Cotton is the most important raw material for the textile industry. In order to maintain India’s global competitive advantage a strong domestic raw material base is needed for the Indian textile industry. The availability of cotton as raw material needs improvement in productivity and reduction in cost of production to ensure a price competitiveness in comparison to imported cotton. Adequate measures have also to be taken to improve quality.

A technology mission was launched in cotton for improving production, productivity and quality and stabilize prices. The study was conducted in Arvind Mills Limited, Ahmedabad, a flagship company of Lalbhai group. AML came into existence in 1931 and today it is one of the top ten manufacturers of denim in the world. AML is one of the largest buyer and consumer of cotton in the country. AML has a cotton procurement division which regularly buys from various types of buyers in the market. The broader policy is a mix of relationships with select suppliers and at the same time keeping open the option to buy from the open market in case of a price advantage. The four important sources which AML observed for the procurement of cotton were cotton ginning and pressing units (directly or through brokers), Gujarat Cooperative Cotton Federation(GUJCOT), Central market intervention agency like Cotton Corporation of India(CCI) and market yards through brokers.
Farmers having economies of scale in production depend on the regulated market while others sell to the specialised commodity cooperative like GUJCOT which operates through 3 tier structure consisting of village/taluka level societies which federate into cooperative unions at district level which in turn federate to state level apex cooperative. The small and marginal farmers approach the trader or middle men. All buying agencies then organise primary processing of cotton in ginning and pressing factories and then deliver to textile or spinning mills. AMP while sourcing cotton from private G&P units deploys brokers thereby transferring all risks of delivery, quality, price etc on to the broker(Eyhorn and Ramakrishnan, 2006).

AML maintains direct linkages with selective G&P units in order to keep quality problems under check. The scope of linkage covers price negotiations, quantum of supplies, quality specifications and areas of modernization in the factory to maintain quality. AML was successful in its initiative in strengthening backward linkages and associated rewards in terms of price premiums to the select ginners encouraged other ginners to embark upon modernization and improve quality standards including low levels of contamination in raw cotton. But at times when price fall in the international market, the mills could not sustain the momentum of paying premium prices. This sets in a chain reaction of ginners in turn not
paying premium price to farmers for raw material of relatively superior quality and farmers lose incentives to produce relatively superior cotton (Frank, 2006). Many ginners perceive that they have been forced into a situation of implementing modernization programme in their mills without corresponding monetary rewards from the textile mills for producing better quality cotton. Further, modernization can only resolve part of the problem as this prevents contamination at the ginning factory level. It does not help in eliminating contaminants that are already present.

The cotton cooperatives were established in 1919. Over time, a loosely knit structure has evolved consisting of more than 500 primary cotton cooperatives, 150 G&P societies and 8 district marketing unions which have federated into a state level federation Gujarat State Cooperative Cotton Federation Limited.(GUJCOT). At the grass root level, the cooperative structure consists of primary(village level) cotton marketing cooperative or multi purpose cooperative, which also market cotton. The farmers can also become members of ginning and pressing cooperatives which also market cotton. The primary cotton or multi purpose societies generally get their cotton ginned and pressed in cooperative units and engage private units wherever cooperative units do not exist.

(Vaswani et al, 2003d)

Even though the structure of cotton cooperatives from village level to state level is vertically integrated, the cooperatives at each level enjoy autonomy. The cooperative practises pooling system of marketing. The farmer members pool their cotton at the cooperative which gets it ginned and pressed into bales. Once all the cotton in the pool is sold, cooperatives work out the price of raw cotton after deducting all the expenses incurred. The farmer members are
paid this price and the cycle from pooling to payment may take 5-8 months. The GUJCOT operationalises its procurement operation by opening cotton purchase centres in different parts of the state. They also undertake distribution of fertilizers, production and distribution of seeds, quality testing facilities and organizing export of cotton.

The CCI is a Government of India undertaking for cotton marketing in the country. CCI undertakes its marketing operations both through price support and commercial operations. The low productivity at the farm level, outdated technology of ginning and pressing units coupled with problems of their viability are some important reasons preventing adequate investments in promoting cleanliness and quality of cotton.

The farmers use different alternatives to dispose their produce viz., through trader, or cooperative society at village level, market yard and directly to G&P unit. There is an increasing gap between domestic demand and supply of raw cotton. An in-depth analysis of the textile industry reveals that the industry is characterized by numerous participants viz., cotton production and ginning, synthetic fibre, spinning, weaving and composite mill. Textile mills have taken initiative to reduce contamination at ginnery level with practically no effort at farm level. Contract farming is being implemented in cotton which is expected to benefit the cotton farming community by making available quality seeds, pesticides on the one hand and also enable the textile mills obtain the desired quality of cotton (Jennifer et al, 1999).

APPACHI Cotton Company, a cotton ginning and trading house in Tamilnadu, has unveiled a working model of contract farming for cotton. The model cotton contract farming titled Farm to fashion – A win-win formula offers scope for a back to back agreement between cotton farmers and mills seeking specified cotton varieties with ginning firms acting as the coordinating agency. The ginning firm will identify and negotiate with a prospective mill on the quantity/quality of cotton they require with no price fixation, which will be decided at the time of arrival of seed cotton. Similarly, it will also identify farmers willing to take up cotton farming in an identified area to grow the agreed variety of cotton. The prospective farmers would be registered through an MoU after assessment of their compatibility to the task and
here again, no price for their final produce would be fixed which would be kept open ended. The price depends on the prevailing market condition at the time of arrival of the seed cotton.

The ginning firms would help the farmers coming under the contract to avail of bank finance for inputs to raise cotton. The finance will be input specific which could be drawn from only specified input shops on a credit basis as per the ginning firm’s advices. Cotton credit card system with a predetermined credit limit fixed to the farmer groups could be introduced. The Appachi cotton’s contract farming formula which focuses on special cotton crop insurance to be negotiated with insurance companies will rope in farmers service centres(FSC) run by leading agribusiness companies at national level(Khan, 2005).

It is observed that the farmers are just suppliers to the industry which has not made serious efforts towards backward integration. Investments made in ginning and processing have reduced contamination but the problem of reduced productivity and quality of cotton has not been addressed. The cotton cooperatives have tried to create some meaningful linkages with the membership through input distribution and output processing and purchase activities. CCI has also attempted to implement cotton development programmes. Firms pursuing cost leadership strategies place considerable emphasis on achieving scale or absolute cost advantages(Kelkar, 2005). These firms often act as spot markets. In cases where the flow of raw materials is insecure or a guaranteed steady flow is a condition for pursuing a cost-leadership strategy, long term contract (coordination contract type) are entered into with farm firms.

All stakeholders in the cotton sector have to pull out to achieve global competitiveness ie., globally acceptable quality at globally comparable cost.
2.3. Marketing of fruits and vegetables in particular

2.3.1. MSAMB and Mahagrapes

Maharashtra is a major producer of fruits and vegetables in India. Realising the potential of the sector, The Maharashtra State Agricultural Marketing Board (MSAMB) was established in 1984 for development of new markets and bringing efficiency to the existing ones. The board in turn promoted cooperative societies aimed at marketing the produce of the agricultural sector (Goel, 2006).

The main objectives of the board were to undertake state level planning for the development of agricultural produce markets, to undertake applied research and development of agricultural marketing system, to arrange for international marketing of agricultural produce and to study the potentialities for the establishment of agricultural processing industries (www.mahagrapes.net). MSAMB has contributed towards developing infrastructure and introducing modern technology in the existing agriculture markets, set up new markets and market systems and worked towards removing inefficiencies from the agrisupply chain. It has played a role in helping the farmers in accessing domestic and international markets. The policy of the board is to support, sustain and promote agricultural cooperatives which are provided technical and financial support for implementing new technology, both on farm during production, and for post harvest processing and marketing (Vivek, 2005a).

MSAMB has promoted cooperatives which mostly specialize in one crop. Some of these cooperatives are Mahagrapes, Mahabanana and Mahamangoes.

Mahagrapes: In 1981, in keeping with the international trend of fruit growers becoming exporters, some vineyard owners of Sangli, Solapur, Pune & Nasik regions of Maharashtra formed 18 co-operative societies with a membership of almost 2500 farmers and decided to enter international markets with their own brand, Mahagrapes. Today, Mahagrapes is one of the largest brands of fresh grapes (mainly seedless grapes) to be exported from India.
Mahagrapes was set up with the valuable support of National Co-operative Development Corporation (NCDC), Government of Maharashtra, Department of Co-operation, Maharashtra State Agriculture Marketing Board, APEDA and National Horticulture Board (NHB).

They are a joint venture firm of 18 co-operative societies with the main aim being to export grapes and other fresh produce to different parts of the world. The firm charges a service charge to the co-operatives. This is its main source of revenue. The broad objectives are upliftment of the farmers community, growth of the co-operative movement, encouragement and development of agricultural export, maximize foreign exchange earnings, update the farmers on the latest technology in farming and acceptance of global challenge with a commitment to quality (Jayakaran, 2006).

Each co-operative society is equipped with a pre-cooling & cold store facility. The technology has been imported from California and has proved to be an essential export tool. At Mahagrapes, the farmers take a lot of care of the produce in the post-harvest stage. The grapes are harvested during early hours of the day when the ambient temperature is low. Thereafter, grapes are taken to pre-cooling rooms and the temperature of grapes is brought down to 2°C / 34°F within a span of six hours. They have a central godown near Pune. Pre-cooled grapes are then packed in corrugated boxes in 2 kgs or 5 kgs and kept in cold storage. Boxes are specially designed with perforations to allow cool air to pass through. For cushioning air bubble sheets are used. For the European Market, grapes bunches of approximately 300 to 700 gms are packed in food grade plastic pouches. They are then wrapped in polythene sheet along with grape guard and tissue paper. Grape guard is used as per international norms to prevent fungus and bacterial infection to grapes due to moisture, if any. The tissue paper absorbs moisture. They lay a lot of importance on quality control, as fruits are susceptible to rotting if not cared for properly (David, 2006).

Mahagrapes often sends it's personnel abroad to study market trends, arrival time and quality of grapes from competitor nations, packaging technologies, standards and updates. Quality of grapes is ensured through the proper application of fertilizers, pest control and other specified
cultivation practices. Mahagrapes ensures that the EC prohibition directive list relating to certain mercuric compounds, organo-chlorine compounds and other compounds are strictly adhered to. The product range is slowly being expanded to include other fruits and vegetables (Joost Pierrot, 2006). Among grapes, there are mainly 4 varieties of seedless grapes grown for exports. Other fruits are mangoes (Variety –Alphonso, Baneshan, & Totapuri), pomegranates, sapota (Chikoo), oranges, custard apples, limes & lemons. The vegetables are okra, eggplant, capsicum, green peas & beans and exotic cucurbits.

It is not only a partnership of commerce between the co-operatives and Mahagrapes. The farmers are given a Minimum Support Price for their produce and they are provided consultancy on pesticide usage. There are study sessions and interactions with scientists to increase the skills and the knowledge base of the growers (Hogg, 2006). Their main plank for inculcating brand equity in their customers is excellence in quality. They even have customers who give them advances. They also help promote their products through keeping personal relations and sending across samples and photographs. Their future plans are to sell their products through e-commerce and enter the market of frozen juices.

During a short span since it’s activities began, Mahagrapes has established itself as a major organization exporting Quality Grapes from India. Mahagrapes has succeeded in establishing its brand name in the highly competitive & quality conscious international markets, major volume of the fruit being sold through the supermarket chains in the United Kingdom & Europe.

The aim behind setting up of this was to open the doors of foreign markets to small farmers. It was envisioned that bringing together small and medium farmers under one umbrella would give better visibility and greater accessibility in foreign markets (Directorate of Marketing, 2006). Realising that providing an export platform would not suffice, Mahagrapes also started establishment of pre cooling units and cold storages, technical assistance and other support services. Crucial inputs at right time is ensured thus, and in turn better quality outputs are ensured. The success of the firm in being able to create its niche is evident from the fact that its relations with its main buyers have strengthened over the years and the fall in
rejections indicate improvement in output quality (Vivek et al, 2005). Presently the main markets are based in UK and Holland.

The entire arrangement has been beneficial for the farmers associated with Mahagrapes. Being based on a cooperative model it ensures that gains to the firm are passed on to the farmers. It has managed to consolidate activities both at the input and output levels. For the former it has internalized the production or procurement of some crucial inputs. For the latter, the strategy of targeted marketing was adopted (Simon, 2006). It managed to adopt the quality of their product to the need of their buyers. To top it all, Mahagrapes has survived and continued to operate where many others have failed and it has also in the past earned profit for its shareholders.

**Terminal market proposed by MSAMB**

A Terminal Market has been proposed on the lines of 'Modern Market for Millennium for fruits and vegetables- a report presented to the Government of India by the NDDB (GoI, 2005). It is designed to cater to around 30 % fruits and vegetable needs of Mumbai city. The Terminal Market Project proposes backward integration (all the way to farmers and
production centres) and forward integration (all the way to distribution centres and retail outlets). Key features include modern post harvest management and marketing infrastructure including cold chain, processing unit, electronic auction centre and marketing facility (www.agmarknet.nic.in).

The Concept is developed on the lines of NDDB’s Terminal market for Bangalore City, currently under implementation. The Terminal Market has a central auction facility where in a large number of buyers can participate. The primary source of supply of produce to the Terminal Market will be Collection Centres owned and professionally managed by Farmers Associations. Graded produce is auctioned at a single time with all buyers competing for lots of each grade. The Market will operate outside the purview of the Agricultural Produce Marketing Act and it will be owned by a registered company led by Private Investors or Company with part ownership by Farmers Association, Wholesalers and Retail Trade Associations. The terminal Market would be professionally managed, self-financed with income generated by service charges levied on growers/ buyers and rentals/ fees for use of facilities. Volume and price information will be rapidly and widely disseminated backward to Farmers’ Associations as well as forward to Retailers and Consumers (www.digitalmandi.net). The terminal Market is planned with both backward linkages, for supply of produce and forward linkages for marketing. The key backward linkage includes Collection Centres and the key forward linkage includes the Wholesalers Distribution Centres, Cash and Carry Counters and Retail Store network. The backward and forward linkages would be owned and operated jointly by private entrepreneurs, farmers associations, farmer co-operatives or private individuals. With no service charges, fewer intermediates, less handling, better and modern infrastructure for handling and processing of perishable horticultural produce, the Terminal Market will ensure better produce quality, better storability and efficient marketing thus benefiting farmers and consumers. The farmers can expect better price realisation for their produce through value addition, significant reductions in spoilage, reduced quality losses and processing activities. In addition the Terminal Market, will act as a competition and extract better service and efficiency from traditional markets (APMCs) thus contributing to overall improvement in marketing activities in the State (India Infoline, 2005).
2.3.2. HOPCOMS: a Success Story of Horticultural Co-operative Marketing

HOPCOMS offers an example of an organisation that provides benefits of collective marketing to both producers as well as consumers in fruits and vegetables. The Horticulture Producer and Cooperative Marketing Society (HOPCOMS) was established in 1959, at the initiative of the Department of Horticulture of the Government of Karnataka in India. Currently, it is a primary cooperative society covering three districts of Karnataka state - namely the Bangalore Rural, Bangalore Urban, and Kolar Districts.

The stated objective of this society is to promote and encourage the development of horticultural produce(Smitha, 2005). This is achieved by selling horticultural produce and providing training, technical advice and agricultural inputs as well as cold storage and marketing facilities to its members(Selvaraj et al, 2006). Since then, the total membership has increased to 11,680 farmers, with 100 tonnes of horticultural produce being traded per day in

(GoI, 2005)
eight districts. These societies were managed by HOPCOMS until 1998, at which point each cooperative society was made independent, sixteen of which were subsequently federated at the state level, as members of the Karnataka Horticulture Federation. The society has 650 permanent employees, and 790 temporary staff. Apart from this the society has certain other officers on deputation from the Department of Horticulture or from other departments. A committee formed according to the provisions of the Cooperative Societies by-law manages HOPCOMS. The committee consists of 20 members, of whom 11 are representatives of growers, elected by the members of the society. The government nominates five members and another four are government officials. Farmers are members of HOPCOMS. The members are divided into the categories of class A, class B and class C. Class A comprises of farmers and producer members. Class B consists of the NGO sector, other cooperatives and banks, who have a stake accounting for less than 1 percent of the total shareholding; and Class C is the state government of Karnataka which holds 91 percent of the total shareholding.

HOPCOMS spends Rs. 10 lakhs (Approximately US$ 25,000) each day for the purchase of fruit and vegetables. There has been a steady increase in the sales over eight years, from around Rs. 10 million in 1992-1993 to over Rs. 40 million in 2000-2001. Fruit and vegetables formed 91% of the total sales, chemicals formed 6%, and seeds and fertilisers remained a very small component of the total sales. Because fruit and vegetables are highly perishable products, the control of wastage directly affects the amount of profits made. HOPCOMS earned a gross profit in each year of operations, from 1991 to 1999. However, while the gross profits have grown, the net profits have shown a variation from the trend of gross profits(The Hindu, 2005). This is due to the high operating expenses, which have almost been equal to the gross profits made for these years, leaving a very negligible net profit. This negligible profit has been attributed to the increase in the employees at HOPCOMS, with the number of employees per retail outlet being an average of about four(Vivek, 2005a). The society plans to increase the number of outlets to increase its sales and profits.
The most significant benefit arises from the fact that HOPCOMS purchases its produce directly from the farmers. This eliminates the intermediaries, and consequently, a remunerative price is paid to the farmers - usually 10-15% higher than the open market prices. Furthermore, during periods when there is an excess supply of certain produce in the market, the open market price drops. HOPCOMS, however, assures a minimum price for produce during times of poor sales. Another major benefit is that cash is paid to farmers on the day of the transaction, thereby eliminating the need for extending credit, which is prevalent in private business. HOPCOMS has weighbridges at each procurement centre, hence assuring farmers of correct weights. HOPCOMS also has infrastructure facilities like cold storage and godowns to store produce, as well as procurement centres where farmers can sell directly to consumers (Smitha, 2004). At the procurement centres, HOPCOMS also sells seeds and fertilisers at subsidised rates, as well as plastic crates for transport. In addition, because farmers travel long distances with large quantities of produce, HOPCOMS provides boarding and lodging facilities also to the farmers.

The largest market of HOPCOMS is among the city dwellers in Bangalore. HOPCOMS assures good quality produce that is pre-packaged and sometimes cut, and sold at reasonable rates that are normally less than prevailing market rates. The weights used at HOPCOMS are also reputed to be correct. Another important factor is the convenient location of the retail outlets, in residential areas and near office areas. The existence of HOPCOMS is also of great benefit to its own employees. The cooperative carries a staff of over 1,400 employees who are not farmer members. These employees draw a salary from the organisation and are important stakeholders.

**Learnings**

The sustainability of HOPCOMS can be evaluated according to criteria related to financial sustainability, managerial control and environmental prerogatives. Each will be described in more detail below. HOPCOMS is a profit-making enterprise, thereby making it financially sustainable. However, it is important to note that much of the gross profits are eliminated by high overhead costs - mainly the salaries of its employees. HOPCOMS has decided to expand its operations by establishing more retail outlets and introducing new products. With
this growth in turnover and increased cost control, it will be possible for HOPCOMS to not only be financially sustainable, but to also expand its business and profits. However, it does not report a high return to investment, as HOPCOMS still works more as a government-promoted cooperative society than a business concern. In terms of managerial sustainability, however, the organisation does not perform well. The organisation is and remains government managed. The management team, although paid by the organisation, usually consider themselves as government employees rather than staff of a competitive business unit, and members do not demand accountability from them, as their capital contribution is only 8 percent of the share capital (Dhankar and Rai, 2002). Members need to take an active interest in the affairs and management of the society and demand greater transparency in its operations. For this to happen, the organisation must make a concerted effort to build the capacities of its members and elected members must take greater control of the management of the organisation (Viivek, 2005a).

The first and foremost condition for replication is that of a favourable legal and regulatory environment and a polity that is positively oriented towards the basic principles of co-operation. This awareness should be present in all those people who want to come together and form a co-operative, and not just at the higher levels. The second most important consideration is the viability of the business undertaking. For a business to be truly viable, member involvement must be much higher, to ensure a better business focus, higher profits, and a more vibrant cooperative. In a democracy like India, there has always been space for cooperatives, and several large and successful cooperative sector enterprises have emerged over the years, including the famous example of milk cooperatives (Krishna, 1962). The legal and regulatory environment in India encourages the establishment of cooperatives. Cooperative law has been amended in different states of India during the last decade, to bring in greater autonomy, control by members, and greater transparency in their operation. HOPCOMS experiences several advantages and disadvantages because of its origins as a government organisation. The main advantage to being government-sponsored is the equity contribution made, which helped to create a vast organisational infrastructure, including several procurement centres, storage centres, processing centres and retail outlets. Linkages with cooperative banks have also enabled it to smooth out cash transactions with members.
The main disadvantage has been the lack of active involvement from its farmer members, who constitute the organisation's main clients. In spite of their large numbers, they do not even own 10 percent of the total shares of HOPCOMS. Care needs to be taken to include members from among the more marginalised groups, and those who need the support from an external initiative. There should also be a large investment made in member education and training.

HOPCOMS is a good example of collective marketing of horticultural produce and tapping of the urban market for the benefit of farmers. It is an outstanding example of the benefit of successful marketing, rather than a case of the successful provision of credit. The organisation extended credit to farmers for some years, but as it could not recover the money, the credit scheme was discontinued. Marketing and credit activities are better done by separate specialized organizations and not by one organization (Marketing and marketing services, 1998).

HOPCOMS must be clear about the clients that it wants to reach. It must keep data on income and asset profiles of its members and monitor these regularly for change and impact. Creating an organisation of the urban poor, to market horticultural produce would also be a good idea, as there is a growing demand for these products in a growing city. However, such an organisation must add some features and be quite different in some ways from HOPCOMS. It is better to place an organisation at the facilitating end if the objective is to reach the poor. The basic precept is for facilitators and promoters to do as little as possible by way of provision of services, and as much as possible by way of capacity-building, networking, linking and mainstreaming. Ultimately, the most important investment that can be made is to consult with clients. An effort to build people's organisations must be made and the people themselves must be aware of the functioning of their institutions (Marketing an quality assurance, 2001).

2.3.3. RYTHU BAZAR

Rythu Bazars were formulated by the Government of Andhra Pradesh in 1999 as a direct interface between the farmers and consumers, and to eliminate middlemen. They were
instituted to act as price stabilisation centres. Rythu Bazars operate outside the purview of Agricultural Market Committees. The objectives were to ensure remunerative prices to the farmers and provide fresh vegetables to consumers at reasonable rates on a daily basis, facilitate prompt realisation of sale proceeds to farmers without any deductions, curb malpractices and provide vegetables with correct weighment to consumers and provide a direct interface between farmers and consumers eliminating intermediaries from the system (Noelia, 2006).

Rythu Bazars are located on government-owned lands that are identified by the District Collectors. The establishment of marketing linkages between the buyer and the seller is critical to the successful functioning of a Rythu Bazar. Infrastructure facilities are provided for all Rythu Bazars through funds from the Agricultural Market Committees. Each Rythu Bazar ensures the provision of the facilities of adequate number of sheds for farmers to store and sell their produce, adequate arrangements for supply of drinking water, toilet facilities with proper sanitation, proper arrangements for parking of vehicles, arrangements for periodic removal of garbage and regular cleaning of the market, facilities for storage of unsold produce including refrigeration facilities like the Zero Energy Cool chambers and provision of tamper-proof weighing scales for all the farmers.

Farmers are identified by a team consisting of a Market Research Officer, Horticulture Officer/Consultant, Village Agricultural Officer. The farmers will be provided horticultural services, seed supply at subsidised rates, transportation arrangements, pricing mechanism and elimination of middlemen, in order to motivate them to reap the benefits of cooperative marketing. Farmers are divided into groups as per their choice and each group can send one or more members on rotation for sale of vegetables to the Rythu Bazar (Reddy, 2006). The benefits given to self-help groups (SHG) by the government are also extended to these groups.

The price fixation in Rythu Bazars is done through a committee of farmers and the Estate Officer. Every day's wholesale market and local retail market prices are collected and the prices
fixed in the Rythu Bazar which are generally between the wholesale and retail rates. The prices are generally 25 per cent above the wholesale price and 25 per cent below retail prices.

The farmers participating in the Rythu Bazars are provided with photo identity cards. These cards help identify sellers in the market and prevent unauthorised personnel from misusing the facilities that are provided to the farmers registered at the Rythu Bazar, by unauthorised personnel. The daily allotment of shops is on a first-come-first-serve basis and on rotation. Joint District Collectors ensure adequate transport arrangements for the farmers (to and from the Bazar) in consultation with the Andhra Pradesh State Road Transport Corporation after ascertaining the specific requirements from the Estate Officers and farmers. Enormous effort is put into the maintenance of a sanitised atmosphere in the Bazar.

The Estate Officers are responsible for the upkeep and maintenance, daily allotment of space on first-come-first-serve basis, providing weighing scales to farmers on a daily basis and collecting them in the evening, formation of price fixation committees and the actual fixation of prices every morning and ensuring that sales take place at the prices fixed. The Estate Officers conduct a meeting with all farmers once a week to assess the functioning of the Bazar, which are minuted and sent to the Joint Collector and Director of Marketing in order to keep them fully updated about the activities in the market. They also coordinate with Horticulture Officers/Consultants for the timely distribution of seed material/inputs to promote horticulture production. Problems of transportation, interference from middlemen, additional infrastructural requirements and assorted concerns of the farmers are promptly brought to the notice of the Joint Collectors.

Horticulture Consultants ensure adequate participation of farmers which is essential for the successful functioning of Rythu Bazars. They visit Rythu Bazars regularly and assess the daily requirement of vegetables, and on the basis of these requirements, prepare action plans for the production and regular supply of vegetables by identifying willing farmers (Seetharam, 2006). The Agriculture Officers are focal points for implementation of the horticulture production plan. They also assist the Horticulture Consultant in proper identification of villages/ farmers for Rythu Bazars.
All varieties of vegetables are not grown in the area identified for each Rythu Bazar. To enable consumers to purchase all varieties of vegetables and fruits under one roof it is envisaged that SHGs will procure these items from the wholesale market or tie up with importers for sale in the Rythu Bazars. Similarly, other essential commodities like oils, pulses, tamarind, etc., are sold by the SHGs who are identified by the Joint Collectors. Prices in Rythu Bazars must invariably be less than the prices in the retail market.

The cost of the entire operation is met through funds provided by the Agricultural Market Committee and the Horticulture Development Department. Infrastructural facilities such as shops, drinking water, electricity, parking, storage for unsold produce, weighing scales, etc. are provided by the Agricultural Market Committees from their own funds. The cost of the Horticulture Consultant is met out of the Horticulture Department funds. Each Rythu Bazar employs one Estate Officer, one computer operator, five supervisors, one store
assistant, one electrician-cum-office attendant, and five security guards. The number of employed personnel may vary from one Rythu Bazar to another depending on the volume of business. All the staff members of Rythu Bazars are hired on a contract basis and are paid consolidated salaries. They are not eligible for any other benefits.

Rythu Bazars generate sufficient income for their sustenance through auction of parking space, lease of private nurseries and profits from the market canteen. The Joint Collector is the competent authority to arrange and finalise the auction. The money realised through the auction is credited to the Rythu Bazar funds and can be used for provision of sanitation, drinking water facilities, purchase and repairs of weighing scales, and general maintenance of Rythu Bazars. Experience has proved that most Rythu Bazaars in cities function as self-sufficient financial entities. The Estate Officers ensure proper maintenance of registers/records. They furnish daily reports of transactions in the Bazars, appended before 11 a.m. everyday. They also furnish weekly returns of transactions as per proforma every Friday. They also have to send a fortnightly report every month on the Rythu Bazar as per the prescribed proforma. The reporting system is thus quite comprehensive and enables the Joint District Collectors to closely monitor the functioning of the Rythu Bazars.

About 97 Rythu Bazars are functioning in Andhra Pradesh where one lakh quintals of vegetables are sold per week. About 6,000 farmers are availing the benefit from Rythu Bazars. Total turnover of vegetable and other essential commodities is about 7.5 crore per week. Rythu Bazars have facilitated direct marketing (www.indiatimes.com). This has cut short marketing channels by eliminating middlemen and brought producer/sellers in direct contact with the consumer. The producers of perishable goods around the cities and urban towns are able to get the benefit of direct selling to the consumers. Rythu Bazars have, therefore, increased the returns to producers, while providing vegetables, fruits and essential commodities to the consumers at economical prices. Efforts are on to provide all Rythu Bazars with 'zero-energy storage units' of appropriate capacity to store unsold stock. Training-cum-appraisal programmes for Estate Officers, Horticulture Consultants and Assistant Directors of Marketing and Horticulture every quarter are also being initiated to
help resolve operational bottlenecks and further improve the efficacy of Rythu Bazars (www.pfionline.com).

Rythu Bazars have been an outstanding success in Andhra Pradesh and have brought immense benefits to the farmers participating in them. However, modifications in the present market framework are necessary to strengthen the existing Rythu Bazars and to ensure their sustainability. The Government of Andhra Pradesh is paying particular attention to the following aspects. It is recognised that location is very important for the successful functioning of Rythu Bazars. Experience suggests that the location of the Bazars should be away from the existing wholesale markets and in the neighbourhood of consumers. They should also be accessible by direct transport, for the benefit of farmers. Therefore, it is necessary to shift/close those Rythu Bazars that are located near wholesale markets. Consumers prefer markets where all varieties of vegetable and fruits are available. SHGs are being encouraged to play a useful role in promoting the sale of vegetables not cultivated in the district (Tej Pratap, 2006). Rice and other essential commodities are also being made available through government agencies, rice millers' association or through the wholesalers. Thus, efforts are being made to provide a holistic marketing environment for consumers. Transport facilities that are available in the early hours of the day are essential for farmers to come to the Rythu Bazars from their villages. The government, on its part, must make sure that these farmers are provided efficient and regular means of transport for reaching the Bazars. Some Rythu Bazars have been able to generate adequate income through auction of parking spaces and canteen facilities for the maintenance of the Bazar. Since infrastructure facilities are provided free of cost by the Marketing Department, all Rythu Bazars are being encouraged to generate their own income towards meeting recurring expenditure. In order to achieve this, all Rythu Bazars should eventually be converted into mutually aided cooperative societies so that their management can be handed over to farmers themselves. Rythu Bazars were conceptualised to provide better marketing avenues for agricultural produce, as well as bridge the gap between the farmers and the consumers. Farmers from a cluster of 10—15 predominantly vegetable-growing villages, who are willing to participate in the Bazar, are identified by the Horticulture Department. Rythu Bazars help to reduce variations in prices and protect the interest of the consumer (www.agroindia.com). A system of price
fixation has been put in place in Rythu Bazars, which is done through a committee and the Estate Officer. The Estate Officer conducts meetings with all farmers once a week to assess the functioning of the Bazar.

However, there is a need to improve the accessibility of Rythu Bazar to larger sections of the population. It is recognised that location is very important for successful functioning of the Rythu Bazar. Experience suggests that the location of the Bazar should be away from the existing wholesale markets and in the neighbourhood of consumers. They should also be accessible by direct transport, for the benefit of the farmers. Therefore, it is necessary to shift/close those Rythu Bazars that are located near wholesale markets (www.iitk.ac.in).

Agencies like the Reserve Bank of India, the Research and Analysis Wing of the Civil Supplies Department as well as teams from neighbouring states have conducted studies on the functioning of Rythu Bazars. These studies have revealed that creating a direct interface between the farmers and the consumers accrue mutual benefits for both the groups involved, while eliminating exploitation from intermediaries. Tamil Nadu and Orissa have already replicated this novel example of regulating producer/consumer markets. At the national level, the Agriculture Division of the Planning Commission envisages promoting the concept of Rythu Bazars, evolved by the state of Andhra Pradesh, as an innovative example of creating a viable alternate market structure.

2.3.4. Himachal Pradesh Fruit Processing and Marketing Corporation (HPMC)

Established in 1974 as a state Public Undertaking HPMC looks after the development of the fruit processing sector in the state. It provides all services to the fruit growers that are needed for successful marketing of the produce in the domestic and export markets. HPMC provides pre and post harvest infrastructure facilities comprising a network of mechanized pack houses, cold storages, trans shipment centres and fruit processing plants besides a network of marketing services(Pushpa, 2006). It has created 10 packing/grading houses, 5 cold storages and 3 processing plants in the State. Several pre and post harvest management services are provided right at the doorsteps of the farmers. One of the major initiatives of HPMC is the introduction of mobile cold storage vans, which procure the produce from the farm gate and
transport them under refrigerated conditions thereby reducing wastage in transit, reducing handling and storage losses and maintaining quality.

HPMC was once a fairly successful enterprise. But it has not been able to sustain its success. There has been stagnation in HPMC in terms of procurement and marketing outlets. It has been unable to attract enough farmer suppliers due to the fact that it has been unable to pay remunerative prices for the fruits procured (Vaswani et al 2003e). The inability to pay remunerative prices to farmers stems from its failure to successfully market its produce in consumer markets and earn higher profits.

HPMC has the advantage of government ownership, which ensured public funds for infrastructure developments, but on the flip side, it brought bureaucratic interference in the management of the enterprise. With bureaucrats at the helm of the affairs in HPMC, the accountability shifted from farmers to superiors in the government and the ministries. This hampered the long term growth of the organization (Vivek et al, 2005).

Corporatization of HPMC is required so that it functions like an autonomous business organisation. Just like cooperatives, even HPMC needs to look for market sources for funds, and not rely on the soft budgets of the Government. Only then will it be able to free itself from the bureaucratic interferences and be able to respond to the market opportunities and challenges (Dhankar and Rai, 2002).

2.3.5. Valsad Fruit and vegetable cooperatives federation, Gandevi, Gujarat.

This cooperative is formed of eight cooperatives in the Gandevi district in Gujarat engaged in the business of fruits and vegetables. The cooperatives have two types of membership – A grade or active members and B grade or nominal members. Membership in category A represents members having own land in the area of operation of the cooperative and supply the entire produce to the cooperative for marketing. The membership in B category is based on ownership of land within the jurisdiction of the cooperative or to the extent of supply of fruits and vegetables to the cooperatives. These cooperatives are engaged in trading of
chickoo, banana, mango, paddy etc. Processing of mango to mango pulp is also done and sold under the brand name *Amidhara*.

The cooperatives provide a range of services to its members related to production, post harvest management system, trading and marketing. The range of services offered by the cooperatives include supply of inputs like fertilisers, pesticides and seeds, credit, monetary advances, tractor, agricultural implements, supply of petrol, diesel etc.(Patel and Pawar, 2006)

The cooperatives assist their members in movement of their produce from farm to the wholesale or retail markets. The cooperatives undertake operations like weighing, grading and packing as transparent as possible. The information on price realized in the terminal market is generally received within three days and is displayed on the notice board. In addition to farm level grading, the cooperatives undertake second grading at their own level to ensure uniformity of produce(www.wto.org). The packing is done using semi automatic packing machines and the boxes carry the trade mark of the concerned cooperative and the grade it contains. Transporting is done through trucks, rail wagons etc The terminal markets are located in Delhi, Jaipur, Indore and Chandigarh.

The payment to the farmers against the sale of the produce is based on the average price received. Single pooling of produce is done usually and in case of mango and paddy, multiple pooling is done due to a number of varieties and difference in traits. All the cooperatives in the group levy a uniform service charge of 3% of the price realized by the members for all commodities. Apart from production and marketing related services, some of these cooperatives provide many other facilities like consumer store, textiles, stationary, medical stores, flour mills, construction materials and cattle feed. The membership not only trust their cooperatives but also patronize by availing important services as marketing. In a study to understand the member’s opinion and satisfaction with various marketing sub functions like weighing, grading, pricing, packing, transport and sales etc, it was found that the satisfaction levels were good. The dissatisfaction in the area of sales was mainly in the
manner in which the cooperatives are discharging their sales function because they were dealing with the same set of agency in the terminal markets.

The sustainability of the cooperative marketing effort depends on the extent of satisfaction which the members derive from the ability of the cooperative to facilitate the receipt of remunerative price from the market and marketing cost incurred. In general the members found the system fair, transparent, timely and price efficient. In addition to the services offered, the members have been given very important roles in decision making process which increased the sense of belongingness.

The horizontal and vertical integration is one of the important features of these cooperatives even though they some time compete in the terminal markets to garner higher prices for their produce. The horizontal integration is operationalised by organizing day to day meetings among the secretaries to assess market in terms of market demand, supply and prices, information exchange about activity to avoid surplus supplies in the same market and resource sharing to reduce costs(Prabha, 2006). The federated structure also benefits them through vertical coordination to achieve economies of scale not available to individual cooperative to undertake processing activity. The vertical integration has been operationalised through a common brand Amidhara for marketing mango pulp, and by the decision of the cooperatives to pool surplus mangoes to produce the intermediate product for pickles. The recent initiatives by these cooperatives to work towards horizontal and vertical coordination are likely to positively impact the cooperative-market interface and improve their forward integration with markets. Simultaneously improvement in forward integration is likely to improve volume and profitability of business to benefit its membership.
The member-cooperative-market can be best described as three major initiatives of the cooperative governance system. Firstly, the backward linkages with the members are strengthened through the organizing element to support farm production at the level of individual members. Secondly, the cooperatives have horizontally integrated in an attempt to improve marketability of highly perishable fruit products. Thirdly, the purpose of vertical integration is to overcome the problems of unpredictable supply gluts and acquire desired economies of scale for the processing activities. The process of backward and horizontal integration seem to have achieved higher level of perfection as compared to forward integration with markets (Vaswani et al, 2003f). It is felt that farmer behaviour and loyalty towards the cooperative is dictated by the trade-off between the price realized for his produce and the nature and extent of services offered (Frank, 2006). Therefore in order to sustain emerging competition, contain possible discontent in membership and to achieve
growth, the cooperatives will have to find new ways to radically improve upon their
marketing capabilities and satisfy growing expectations of their membership through
constant improvement in range and quality of services.

It is seen that the bondage between the cooperative and its membership revolved around three
major factors: strong backward integration through provision of services needed by the
membership, purchase of produce from its members and processes of market transaction. The
cooperatives have to identify services in accordance with the needs of its members, and also
offer services in such a manner that maximizes their usage and results in better allocation of
available resources within the cooperatives.

The cooperatives have been able to build a strong relationship and trust with their
membership through an effective participatory governance system. In order to organize
efficient marketing of farm produce procured from the membership, the cooperatives need a
strong interface with markets particularly under growing competition from the private trade.
The cooperatives have not been able to achieve the desired level of perfection in forward
integration with markets. This could be due to the lack of appreciation for the fact that
catering to distant and competitive markets requires radically different expertise as compared
to establishing backward linkages. Secondly, the growing competition would require the
cooperative to improve their economies of scale and product differentiation to effectively
compete in the market place. In order to achieve these, the cooperatives have to not only act
as efficient and honest middle men, but work proactively to enhance value addition of their
products or commodities. The cooperatives need to strengthen the organizing element by
influencing the production system to align them more closely with markets and maximize
their membership benefits (India Infoline, 2005).

2.3.6. The Chhatrapati Shivaji Market Yard, Gultekadi.

The Chhatrapati Shivaji Market Yard, Asia’s largest mandi in Gultekadi, Pune, was formed in
1974 undertaking trading of vegetables, fruits, groceries, flowers, betel leaf etc. There are
914 shops and there is a governing office that resolves all issues of disputes as well as looks
into the daily functioning of the mandi. Prices of the major commodities are announced in the morning daily. The prices are flashed throughout the day on an electronic screen situated at the entrance to the market. The office keeps track of the rates in the mandi as well as the functioning of the weighing machines (India Infoline, 2005).

The main market for the agricultural produce of this mandi is South India. All prices are determined by supply and demand. All the traders work on a commission basis. They have a fixed ceiling on the amount of commission that they can charge. This varies from commodity to commodity. The commission is charged on the selling price of the farmers. They are thus called commission agents. The purchaser pays a levy of 1.05% on the amount purchased to the commission agent. This includes a market fee of 1% and a 0.05% maintenance fee. Both the receipts are then forwarded to the market yard office by the commission office. A farmer bringing in 1000 kg. of lady’s finger priced at an “MRP” of Rs. 10 per kg. will leave the yard receiving Rs. 9200 as the commission agent keeps the 8% commission. The rates vary from one category of produce to the other. Of course, there is undercutting due to competitive pressures. The commissions of workmen like coolie, weighman etc are deducted from the farmer’s bill by the commission agent. The commission agent is given a yearly license – Rs. 500 for maintenance and Rs. 100 as the license fees. The farmers come to this mandi from the surrounding tehsils and other places from Pune district. The complex is self-sufficient. There are facilities for the lodging of farmers who want to stay overnight. They can stay here for 12 hours by paying a minimal amount of two rupees. The capacity of this facility is 150 farmers. There is a parking lot for the trucks as well as the other vehicles of the farmers. There are also sanitary facilities for the farmers. There are some 176 mandis in Maharashtra.

The members of the governing council are elected democratically. The efficient and organized manner of conducting business as well as the infrastructure on display is a replicable model.
2.3.7. **ATMA**

Farmers groups are being formed at the district level under the aegis of the ATMA (Agricultural Technology Management Agency) constituted under the World Bank-assisted NATP (National Agricultural Technology Project). The Shimla district of Himachal Pradesh is a project district under the NATP project. An exercise has been attempted here for establishing different direct marketing channels through the possible alternatives of direct group marketing of the fruit and vegetables by the farmers’ groups of the Shimla districts (Paty, 2002). Though this is a hypothetical exercise, an attempt is made to throw insight into exploring the possibility of introducing direct group marketing at the micro-level (district level) after giving due weightage to the parameters of the local agricultural economy.

Alternative I was direct marketing of apples by the Farmers’ Group of the Shimla district at the premium markets of Chennai, Trivandrum and Bangalore which is an appropriate step for improving the farmer’s share in the consumer’s rupee. The farmers will bypass the middlemen of the existing market channel, which, in its turn, will go a long way towards reducing the marketing cost through shortening of the channel and passing this cost-reduction to the final consumers in the form of reasonable prices in the retail market. ATMA plans to provide farmer groups with vehicles, subsidy on transportation expenses and other supports.

Alternative II was the direct marketing instrument of FARMERS’ MARKET in the name and style of RYTHU BAZAR (FARMERS’ MARKETS) in A.P. This has been an effective exercise towards protecting the interests of the farmers and assuring fair price of the commodities to the consumers. Farmers’ Groups will be provided with vehicles and subsidized running expenses of the vehicles by the ATMA. The vehicles will be collecting apple and vegetables from different collection points to carry them to the FARMERS’ MARKET to be set up under the NATP project. The individual farmers will also be given 30% subsidy in transportation in the H.P. transport corporation.

Alternative III was to target hotels and the restaurants, for their bulk consumption of fruit and vegetables, for direct marketing. These bulk consumers need assured supply of the
commodities throughout the year. The Farmers’ Groups formed under ATMA of the Shimla District shall act as commercial enterprises to come up to the expectations of these bulk consumers in terms of the grading, packing and timely delivery of the commodities.

2.4. Other initiatives in marketing of agricultural commodities

2.4.1. Agri export Zones

AEZ is one of the important policies of the Government of India that provides a bundle of services to producers. The AEZ was introduced in the National Export and Import policy in the year 2001-2002. There is a general understanding emerging in the government authorities that comprehensive assistance should be meted out to units involved in production and processing to be able to successfully compete in the world market. The AEZs are so designed that the entire value chain starting from the farm upto the final retailing unit is strengthened(Gopi, 2006). Provision for good quality inputs like modern seeds for exportable and processable varieties of fruits and vegetables, pre and post harvest technologies for farmers, storage and warehousing facilities, good transportation and communication networks, sources of finance, export friendly infrastructures like ports, inland container depots and quality assurance laboratories all come as a package to units in AEZ(Agricultural Department, 2004). Convergence is the modus operandi in an AEZ where the government authorities and private entrepreneurs converge to devise solutions and build synergies for boosting exports in agriculture(Directorate of Agriculture, 2003).

2.4.2. PEPSI FOODS PVT LTD:

A good example of successful backward linkage in horticulture and agriculture crop procurement has been in operation in Punjab for more than 10 years now. Pepsi pioneered the concept of contract farming for the bulk procurement of a variety of crops like potato, tomato, groundnut, chili and paddy. This model essentially is based on the principle that location specific R&D will drive profit enhancement over the whole range of crops. R&D to processing and distribution, are fully integrated in the model.
2.4.3. TATA RALLIS:

Years of continued farmer contact at the field level on a one to one basis by the Rallis organization, has positioned them uniquely in their ability to impact agriculture at the grassroots level. Tata Rallis, by marketing the key farm inputs including agri-chemicals, pesticides, seeds, and fertilizers etc. have succeeded in leveraging their strength to the benefit of farmers and other partners. For instance, processors interested in raw material procurement for processing have been roped in to partner Tata Rallis. Also filling in key gaps are the financial service institutional partner who offer credit on inputs to the farmers as well as funding working capital requirements. Tata Rallis are utilizing their core strength, i.e. distribution of inputs, to undertake location specific R&D and provision of extension services for the benefit of the farmers (Brook, 2006). The response from the farmers is encouraging. New business opportunities are being created. Currently there are a number of projects in operation – Wheat and Basmati rice, and for fruits and vegetables. Chitradurga. Credit is being provided by ICICI while the produce is picked up at prevalent rates and payment made to farmers upfront by Rallis partners such as Hindustan Lever Ltd., Cargill & Food World. The response from farmers is encouraging and Rallis plans to rapidly upscale its operations in coming years.

2.4.4. CARGILL INDIA:

This grain and oil seeds trading giant has and is continuing to use its purchasing and trading volumes to positively impact farm gate realization. The key focus for Cargill India has been on disintermediation and intelligent use of financial resources and services. Cargill India procures from farmers directly without use of middlemen. This step provides the farmers not only an assured marketing outlet but also allows them to eliminate fees, commission, brokerage etc., paid to a host of middlemen in the supply chain as it existed in the past. Cargill India believes that within a short period of time the farmer can save almost Rs.800/MT of grain procured, merely by squeezing out inefficiencies from the system. They expect that farmers’ income would be enhancing incrementally to this level by virtue of the fact that Cargill is offering another attractive alternative to the farmers. Coupled with this
initiative, Cargill India is also prepared to fund procurement, storage, warehousing and ancillary activity related to grain handling and trading operations. This private sector initiative is likely to expand further to include farmers from a variety of locations in India and across a broad spectrum of food grains, oil seeds and cash crops.

**Modern terminal market for fruits and vegetables**

Terminal Market (TM) would endeavour to integrate farm production with buyers by offering multiple choices to farmers for sale of produce such as electronic auctioning and facility for direct sale to exporter, processor and retail chain network under a single roof (GoI, 2006). In addition, the market would provide storage infrastructure thus offering the choice to trade at a future date to the participants. It is envisaged to offer a one-stop-solution that provides Logistics support including transport services & cool chain support and facility for storage (including warehouse, cold storage, ripening chamber, storage shed), facility for cleaning, grading, sorting, packaging and palletisation of produce and extension support and advisory to farmers. Each of these services would be provided in lieu of a user charge. The TM would be built, owned and operated by a Corporate/ Private/Co-operative entity (hereinafter called as Private Enterprise) either by itself or through adoption of an outsourcing model (Vikram Sing, 2004). The enterprise could be a consortium of entrepreneurs from agri-business, cold chain, logistics, warehousing, agri-infrastructure and related background. Implementation and successful operation of this path-breaking initiative would necessitate State Government support. Thus, the creation of a conducive regulatory and legal framework for entry & operation of the project and provision of a level playing field to the private enterprise would be integral to realisation of this vision. The Central Government will lend its support to the initiative by providing financial support to the project through the Venture Capital (VC) Fund of the Small Farmers Agri-Business Consortium (SFAC).

**II. Features of the Terminal Market (TM)**

The TM would operate on a Hub-and-Spoke Format wherein the Terminal Market (the hub) would be linked to a number of collection centres (the spokes). The spokes would be
conveniently located at key production centres to allow easy farmer access and the catchment area of each spoke would be based on meeting the convenience needs of farmers, operational efficiency and effective capital utilisation of the investment. The commodities to be covered by the markets include fruits, vegetables, flowers, aromatics, herbs, meat and poultry. Producers, farmers and their associations and other market functionaries from any part of the country may use the infrastructure and facilities of the TM directly or through the collection centres. The TM can source the commodities from the entire State where the project is located and may extend its operations to the whole country, depending on the commodities handled there. The infrastructure and services that are to be provided to farmers, traders, consumers and other stakeholders, at the TM and the Collection Centres (CCs) are presented below:

(GoI, 2006)

The infrastructure and services to be provided by the TM and CC should be in conformity with recognized national/ international standards, if any, and can also be outsourced. While many features of the TM have been incorporated in the Project DPR (supplied by the
National Institute of Agricultural Marketing, Jaipur), it would be the prerogative of the Private Enterprise to prepare its own Business Model and determine the size of the market and scale of its operation based on financial viability and commercial considerations. The project should, however, be technically designed to handle the minimum quantity of peak throughput (MT/day) and the yearly handling capacity of perishables as fixed for the market complex in the DPR.

For the successful operation of the Terminal Market Complex Projects, the role and responsibility of the concerned agencies in implementation and operation of the project is detailed which includes Central and State governments and private firms.

**Commodity Exchange (Futures Market)**: This is a market or base where buyers and sellers can meet, agree on prices, quality, delivery schedules and other terms of sale. The commodity exchange will help in concluding an obligation to supply or receive a commodity, provide facilities where trading can take place. Futures trading is not "Satta" at all. It allows free play of market forces. The Government should develop Futures Markets for key grains like wheat and rice on the lines of the "Chicago board of trade" and "Kansas city board of trade" in USA. It would be best managed by an autonomous organization. The concept of Value Added Centres (VACs) or Produce Consolidation Sheds (PGSs) as followed by Gujarat Agro Industries Ltd should be promoted to facilitate the consolidation of farm produce at the district level (Khan, 2005). The private and cooperative sector should play a larger role in the marketing of horticultural produce.

**Conclusion**

In case of successful cooperatives, the bondage between cooperatives and membership revolved around three major factors ie., strong backward integration through provision of services, benefits of collective marketing and transparency in the process of market transaction. In order to retain the trust of their membership cooperatives need to take two important steps – firstly to continue to improve the quality of services needed by majority of the membership and secondly to introduce organizing element to further align production system with the needs of the market and generate economies of scale to improve farmers
bargaining power. On the marketing front, the cooperatives need to put greater effort in improving cooperative market interface through upgrading professional managerial input and value addition to its products. Unlike cooperatives, private firms do not attempt to build broad based relationships with the contract farmers. Farmer managed organizations have greater farmer/producer orientation in building backward linkages. Private firms have greater procurement orientation and their relationship with the farmers is based on this. In each of the above cases, the common theme is that each firm has attempted to hedge against the vagaries of agribusiness by adopting innovative formats for vertical coordination and supply chain management. Agribusiness firms are now directly interacting with the producer farmers, and not relying completely on the intermediaries in the supply chain. Value addition and quality consciousness are becoming the driving forces for the firms and rural farmers entering into collaborative partnerships. Firms are leveraging modern technology to overcome the infrastructure bottlenecks. Use of IT for vertical coordination in agribusiness has been amply demonstrated by ITC(www.mckinsey.com). Also firms are investing resources in organising farmers at the backend of the supply chain and establishing procurement bases. The dairy cooperatives in the country and the fruit cooperatives in Western India are good examples of vertical coordination in the cooperative sector.

The fruit and vegetable sector offers immense opportunities for the producers, processors, retailers and exporters for building successful businesses provided they are able to build competitive advantages from the high levels of inefficiencies in the system today. Reduction in post harvest losses, working in close interaction with farmers, vertical integration in the value chain, and contract farming for fruits and vegetables are all important for the growth and development of this sector. The efforts for the development of the fruits and vegetables industry in India shall have to encompass a whole multitude of activities starting from improvements in the agriculture extension services, development of varieties and ensuring stringent quality standards both for the domestic and export markets. Institution building shall also be an important component in the drive for modernizing and consolidating the fruit and vegetable industry. Organisations like Mahagrapes should be the norm rather than the exception if we have to leverage our competitive advantage in horticulture.