AGRICULTURAL MARKETING TRADE AND PRICES

B.SC AGRICULTURE

Agricultural Marketing Trade and Prices

Author

TNAU, Tamil Nadu

INDEX

LN	Name	Page No
1	Introduction	4-23
2	Market structure conduct and performance	24 - 42
3	Marketing channels, marketing cost, marketing efficiency and market integration	43 - 75
4	External trade in agricultural products	76 - 92
5	Cooperative agricultural marketing institutions	93 - 142
6	STATE TRADING and QUALITY CONTROL	143 - 160
7	Warehousing and food corporation of India	161 - 203
8	Agricultural prices and risk management	204 - 220

CHAPTER 1
INTRODUCTION

Mankind is considered the superior to the living things in the world. Civilization transformed that into producer of food and other basic requirements from the nomadic behavior in which hunting and snatching were the way of life. Land cultivation and food production marked the beginning of civilization particularly in the riparian lands. Mother Nature has to offer Her blessings to satisfy the food needs of all living creatures. Land cultivation, otherwise known as farming is influenced by the behavior of natural events like rainfall, drought, flood, storm and so on and so forth. Food production has its limitations and so all food cannot be produced in all places. In other words, food production is restricted to specific locations where the soil, weather and moisture favor that activity. Nevertheless food produced has to be consumed worldwide by the human beings, animals, birds and others in need. A group of people specializing in food production and identified as farmers shoulder the noble responsibility of feeding the entire world. Hence there is no need to emphasis that food produced at specific places has to be distributed to other places of consumption. It is in this juncture, marketing plays its vital role.

Marketing is as critical to better performance in agriculture as farming itself. Therefore, market reform and marketing system improvement ought to be an integral part of policy and strategy for agricultural development. Although a considerable progress has been achieved in technological improvements in agriculture by the use of high-yielding variety seeds and chemical fertilizers, and by the adoption of plant protection measures, the rate of growth in farming in developing countries limping behind the desired levels. This has been largely attributed to the fact that not enough attention has been devoted to the facilities and services which must be available to farmers that would support agricultural sector for its development. Marketing is one of those facilities needed for over all economic development of nations.

Concept and Definition

The term *agricultural marketing* is composed of two words – agriculture and marketing. Agriculture, in the broadest sense, means activities aimed at the use of natural resources for human welfare, *i.e.*, it includes all the primary activities of production. But, generally, it is used to mean growing and/or raising crops and livestock. Marketing encompasses a series of activities involved in moving the goods from the

point of production to the point of consumption. It includes all activities involved in the creation of time, place, form and possession utility.

Philip Kotler has defined marketing as a human activity directed at satisfying the needs and wants through exchange process.

American Marketing Association defined marketing as the performance of business activities that directs the flow of goods and services from producers to users.

According to Thomsen, the study of agricultural marketing comprises all the operations, and the agencies conducting them, involved in the movement of farm-produced foods, raw materials and their derivatives, such as textiles, from the farms to the final consumers, and the effects of such operations on farmers, middlemen and consumers.

Agricultural marketing is the study of all the activities, agencies and policies involved in the procurement of farm inputs by the farmers and the movement of agricultural products from the farms to the consumers. The agricultural marketing system is a link between the farm and the non-farm sectors. It includes the organization of agricultural raw materials supply to processing industries, the assessment of demand for farm inputs and raw materials, and the policy relating to the marketing of farm products and inputs.

According to the National Commission on Agriculture (XII Report, 1976), agricultural marketing is a process which starts with a decision to produce a saleable farm commodity, and it involves all the aspects of market structure or system, both functional and institutional, based on technical and economic considerations, and includes pre- and post-harvest operations, assembling, grading, storage, transportation and distribution.

Agricultural marketing system in developing countries including India can be understood to compose of two major sub-systems *viz*., product marketing and input (factor) marketing. The actors in the product marketing sub-system include farmers, village/primary traders, wholesalers, processors, importers, exporters, marketing cooperatives, regulated market committees and retailers. The input sub-system includes input manufacturers, distributors, related associations, importers, exporters and others who make available various farm production inputs to the farmers.

However, as Acharya has described, in a dynamic and growing agricultural sector, the agricultural marketing system ought to be understood and developed as a link between the farm and the non-farm sectors. A dynamic and growing agricultural

sector requires fertilizers, pesticides, farm equipments, machinery, diesel, electricity, packing material and repair services which are produced and supplied by the industry and non-farm enterprises. The expansion in the size of farm output stimulates forward linkages by providing surpluses of food and natural fibres which require transportation, storage, milling or processing, packaging and retailing to the consumers. These functions are obviously performed by non-farm enterprises. Further, if the increase in agricultural production is accompanied by a rise in real incomes of farm families, the demand of these families for non-farm consumer goods goes up as the proportion of income spent on non-food consumables and durables tends to rise with the increase in real per capital income. Several industries, thus find new markets for their products in the farm sector.

Agricultural marketing, therefore, can be defined as comprising of all activities involved in supply of farm inputs to the farmers and movement of agricultural products from the farms to the consumers. Agricultural marketing system includes the assessment of demand for farm-inputs and their supply, post-harvest handling of farm products, performance of various activities required in transferring farm products from farm gate to processing industries and/or to ultimate consumers, assessment of demand for farm products and public policies and programmes relating to the pricing, handling, and purchase and sale of farm inputs and agricultural products. Of late trade in the domestic and international markets also become the part of it.

Scope and Subject Matter

Agricultural marketing in a broader sense is concerned with the marketing of farm products produced by farmers and of farm inputs and services required by them in the production of these farm products. Thus, the subject of agricultural marketing includes product marketing as well as input marketing.

The subject of output marketing is as old as civilization itself. The importance of output marketing has become more conspicuous in the recent past with the increased marketable surplus of the crops and other agricultural commodities following the technological breakthrough. On one hand surplus production in agriculture resulted in problem of distribution to consumption centres and on the other transformed agriculture into a commercial venture where market needs came to the lime lite. Input marketing is a comparatively new subject. Farmers in the past used such farm sector inputs as local seeds and farmyard manure. These inputs were available with them; the purchase of inputs for production of crops from the market by the farmers was almost negligible. The

importance of farm inputs – improved seeds, fertilizers, insecticides and pesticides, farm machinery, implements and credit – in the production of farm products has increased in recent decades. The new agricultural technology is input-responsive. Thus, the scope of agricultural marketing must include both product marketing and input marketing. In this book, the subject-matter of agricultural marketing has been dealt with; both from the theoretical and practical points of view. It covers what the system is, how it functions, and how the given methods or techniques may be modified to get the maximum benefits.

Specially, the subject of agricultural marketing includes marketing functions, agencies, channels, efficiency and costs, price spread and market integration, producer's surplus, marketing institutions, government policy and research, imports/exports of agricultural commodities and commodity and futures trading.

New Role of Agricultural Marketing

Agricultural marketing scenario in the country has undergone a sea-change over the last six decades owing to the increases in the supply of agricultural commodities and consequently in their marketed surpluses; increase in urbanization and income levels and thereby changes in the pattern of demand for farm products and their derivatives; slow and steady increase in the linkages with the overseas markets; and changes in the form and degree of government intervention in agricultural markets. Therefore, the framework under which agricultural produce markets function and the factors which influence the prices received by the farmers now need to be understood in a different perspective compared to that in the past. The role of marketing now starts right from the time of decision relating to what to produce, which variety to produce and how to prepare the product for marketing rather than limiting it to when, where and to whom to sell.

Markets and Marketing

Market – Meaning

The word *market* originated from the latin word 'marcatus' which means merchandise or trade or a place where business is conducted.

Word 'market' has been widely and variedly used to mean: (a) a place or a building where commodities are bought and sold, *e.g.,* super market; (b) potential buyers and sellers of a product; *e.g.,* wheat market and cotton market; (c) potential buyers and sellers of a country or region, *e.g*., Indian market and Asian market; (d) an organization which provides facilities for exchange of commodities, *e.g*., Bombay stock exchange; and (e) a phase or a course of commercial activity, *e.g*., a dull market or bright market.

There is an old English saying that two women and a goose may make a market. However, in common parlance, a market includes any place where persons assemble for the sale or purchase of commodities intended for satisfying human wants. Other terms used for describing markets in India are *Haats, Painths, Shandies* and *Bazar*.

The word market in the economic sense carries a broad meaning. Some of the definitions of market are given below:

1. A market is the sphere within which **price determining forces** operate.
2. A market is the area within which the forces of **demand and supply** converge to establish a **single price.**
3. The term market means not a particular market place in which things are bought and sold but the **whole of any region** in which buyers and sellers are in such a free intercourse with one another that the prices of the same goods tend to equality, easily and quickly.
4. Market means a **social institution** which performs activities and provides facilities for exchanging commodities between buyers and sellers.
5. Economically interpreted, the term market refers, not to a place but to a **commodity or commodities and buyers and sellers** who are in free intercourse with one another.
6. The American Marketing Association has defined a market as **the aggregate demand o**f the potential buyers for a product/service.
7. Philip Kotler defined market as an **area for potential exchanges.**

A market exists when buyers wishing to exchange the money for a good or service are in contact with the sellers who are willing to exchange goods or services for money. Thus, a market is defined in terms of the existence of fundamental forces of supply and demand and is not necessarily confined to a particular geographical location. The concept of a market is basic to most of the contemporary economies, since in a free market economy, this is the mechanism by which resources are allocated.

Components of a Market

For a market to exist, certain conditions must be satisfied. These conditions should be both necessary and sufficient. They may also be termed as the components of a market.

1. The existence of a good or commodity for transactions (physical existence is, however, not necessary);
2. The existence of buyers and sellers;

3. Price at which the commodity is transacted or exchanged
4. Business relationship or intercourse between buyers and sellers; and
5. Demarcation of area such as place, region, country or the whole world.

Dimensions of a Market

There are various dimensions of any specified market. These dimensions are:

1. Location or place of operation
2. Area or coverage
3. Time span
4. Volume of transactions
5. Nature of transactions
6. Number of commodities
7. Degree of competition
8. Nature of commodities
9. Stage of marketing
10. Extent of public intervention
11. Type of population served
12. Accrual of marketing margins

Any individual market may be classified in a twelve-dimensional space.

Classification of Markets

Markets may be classified on the basis of each of the twelve dimensions already listed.

1. On the Basis of Location or Place of Operation

On the basis of the place of location or place of operation, markets are of the following types:

(a) Village Market: A market which is located in a small village, where major transactions take place among the buyers and sellers normally residing in that village, is called a village market.

(b) Primary Markets: These markets are located in towns near the centres of production of agricultural commodities. In these markets, a major part of the produce is brought for sale by the producer-farmers themselves. Transactions in these markets usually take place between the farmers and primary traders.

(c) Secondary Wholesale Markets: These markets are located generally at district headquarters or important trade centres or near railway junctions. The major transactions of commodities in these markets take place between the village traders and

wholesalers. The bulk of the arrivals in these markets are from other markets. The produce in these markets is handled in large quantities. There are, therefore, specialized marketing agencies performing different marketing functions, such as those of commission agents, brokers and weighmen in these markets. These markets help in assembling commodities from neighboring district/tehsil/state.

(d) Terminal Markets: A terminal market is one where the produce is either finally disposed of to the consumers or processors, or assembled for export. In these markets, merchants are well organized and use modern methods of marketing. Commodity exchanges exist in these markets which provide facilities for forward trading in specific commodities. Such markets are located either in metropolitan cities or at sea-ports. Delhi, Mumbai, Chennai, Bengaluru, Kolkata and Cochin are terminal markets in India for many commodities.

(e) Seaboard Markets: Markets which are located near the seashore and are meant mainly for the import and/or export of goods are known as seaboard markets. These are generally seaport towns. Examples of these markets in India are Mumbai, Chennai, Kolkatta and Cochin (Kochi).

2. On the Basis of Area/Coverage

On the basis of the area from which buyers and sellers usually come for transactions, markets may be classified into the following four classes:

(a) Local or Village Markets: A market in which the buying and selling activities are confined among the buyers and sellers drawn from the same village or nearby villages. The village markets exist mostly for perishable commodities in small lots, *e.g.,* local milk market or vegetable market.

(b) Regional Markets: A market in which buyers and sellers for a commodity are drawn from a larger area than the local markets. Regional markets in India usually exist for food grains.

(c) National Markets: A market in which buyers and sellers spread at the national level. Earlier national markets existed for only durable goods like jute and tea. But with the expansion of roads, transport and communication facilities, the markets for most of the products have taken the form of national markets.

(d) World or International Market: A market in which the buyers and sellers are drawn from more than one country or the whole world. These are the biggest markets

from the area point of view. These markets exist for the commodities which have a world-wide demand and/or supply, such as coffee, machinery, gold, silver, etc. In recent

years many countries are moving towards a regime of liberal international trade in agricultural products like raw cotton, sugar, rice and wheat. It is expected that the international trade in such commodities will become free from many restrictions that exist now.

3. On the Basis of Time Span

On this basis, markets are of the following types:

(a) Short period Markets: The markets which are held only for a day or few hours are called short-period markets. The products dealt within these markets are of a highly perishable nature, such as fish, fresh vegetables, and liquid milk. In these markets, the prices of commodities are governed mainly by the extent of demand for, rather than by the supply of, the commodity.

(b) Periodic Markets: The periodic markets are congregation of buyers and sellers at specified places either in villages, semi-urban areas or some parts of urban areas on specific days and time. Major commodities traded in these markets is the farm produce grown in the hinterlands. The periodic markets are held weekly, biweekly, fortnightly or monthly according to the local traditions. These are similar to 'spontaneous markets' in several developed countries.

(c) Long-period Markets: These markets are held for a longer period than the short-period markets. The commodities traded in these markets are less perishable and can be stored for some time; like foodgrains and oilseeds. The prices are governed both by the supply and demand forces.

(d) Secular Markets: These are markets of a permanent nature. The commodities traded in these markets are durable in nature and can be stored for many years. Examples are markets for machinery and manufactured goods.

4. On the Basis of Volumes of Transactions

There are two types of markets on the basis of volume of transactions at a time.

(a) Wholesale Markets: A wholesale market is one in which commodities are bought and sold in large lots or in bulk. These markets are generally located in either towns or cities. The economic activities in and around these markets are so intense that over time the population tends to get concentrated around these markets. These markets occupy an extremely important link in the marketing chain of all the commodities including farm products. Apart from balancing the supply and demand and discovery of

the prices of a commodity, these markets and functionaries in them serve as a link between the production system and consumption system. The wholesale markets for

farm products in India can be classified as primary, secondary and terminal wholesale markets. The primary wholesale markets are in the nature of assembling centres located in and around producing regions. The transactions in primary wholesale markets take place mainly between farmers and traders. Secondary wholesale markets are generally located between primary wholesale and terminal markets. The transactions in these markets take place between primary wholesalers and traders of terminal market. The terminal markets are generally located at the large urban metropolitan cities or export centres catering to the large consuming population around them or in the overseas markets.

(b) **Retail Markets:** A retail market is one in which commodities are bought by and sold to the consumers as per their requirements. Transactions in these markets take place between retailers and consumers. The retailers purchase the goods from wholesale market and sell in small lots to the consumers in retail markets. These markets are very near to the consumers.

The distinction between the wholesale and retain market can be made mainly on the basis of buyer. A retail market means that the buyers are generally ultimate consumers, whereas in the wholesale market the buyers can be wholesalers or retailers. But sometimes-bulk consumers also purchase from the wholesale markets. The quantity transacted in retail markets is generally smaller than that in the wholesale markets.

5. On the Basis of Nature of Transactions

The markets which are based on the types of transactions in which people are engaged are of two types:

(a) Spot or Cash Markets: A market in which goods are exchanged for money immediately after the sale is called the spot or cash market.

(b) Forward Markets: A market in which the purchase and sale of a commodity takes place at time *t* but the exchange of the commodity takes place on some specified date in future *i.e.,* time $t + 1$. Sometimes even on the specified date in the future ($t + 1$), there may not be any exchange of the commodity. Instead, the differences in the purchase and sale prices are paid or taken.

6. On the Basis of Number of Commodities in which Transaction Takes Place

A market may be general or specialized on the basis of the number of commodities in which transactions are completed:

(a) General Markets: A market in which all types of commodities, such as foodgrains, oilseeds, fibre crops, gur, etc., are bought and sole is known as general market. These markets deal in a large number of commodities.

(b) Specialized Markets: A market in which transactions take place only in one or two commodities is known as a specialized market. For every group of commodities, separate markets exist. The examples of specialized markets are foodgrain markets, vegetable markets, wool market and cotton market.

7. On the Basis of Degree of Competition

Each market can be placed on a continuous scale, starting from a perfectly competitive point to a pure monopoly or monopsony situation. Extreme forms are almost non-existent. Nevertheless, it is useful to know their characteristics. In addition to these two extremes, various midpoints of this continuum have been identified. On the basis of competition, markets may be classified into the following categories:

(a) Perfect Markets: A perfect market is one in which the following conditions hold good:

(i) There is a large number of buyers and sellers;

(ii) All the buyers and sellers in the market have perfect knowledge of demand, supply and prices;

(iii) Prices at any one time are uniform over a geographical area, plus or minus the cost of getting supplies from surplus to deficit areas;

(iv) The prices of different forms of a product are uniform, plus or minus the cost of converting the product from one form to another.

(b) Imperfect Markets: The markets in which the conditions of perfect competition are lacking are characterized as imperfect markets. The following situations, each based on the degree of imperfection, may be identified:

(i) Monopoly Market: Monopoly is a market situation in which there is only one seller of a commodity. He exercises sole control over the quantity or price of the commodity. In this market, the price of a commodity is generally higher than in other markets. Indian farmers operate in monopoly market when purchasing electricity for irrigation. When there is only one buyer of a product, the market is termed as a monopsony market.

(ii) Duopoly Market: A duopoly market is one which has only two sellers of a commodity. They may mutually agree to charge a common price which is higher than the

hypothetical price in a common market. The market situation in which there are only two buyers of a commodity is known as the duopsony market.

(iii) Oligopoly Market: A market in which there are more than two but still a few sellers of a commodity is termed as an oligopoly market. A market having a few (more than two) buyers is known as oligopsony market.

(iv) Monopolistic Competition: When a large number of sellers deal in heterogeneous and differentiated form of a commodity, the situation is called monopolistic competition. The difference is made conspicuous by different trade marks on the product. Different prices prevail for the same basic product. Examples of monopolistic competition faced by farmers may be drawn from the input markets. For example, they have to chose between various makes of insecticides, pumpsets, fertilizers and equipments.

8. On the Basis of Nature of Commodities

On the basis of the type of goods dealt in, market may be classified into the following categories:

(a) Commodity Markets: A market which deals in goods and raw materials, such as wheat, barley, cotton, fertilizer, seed, etc., are termed as commodity markets.

(b) Capital Markets: The market in which bonds, shares and securities are bought and sold are called capital markets; for example, money markets and share markets.

9. On the Basis of Stage of Marketing

On the basis of the stage of marketing, markets may be classified into two categories:

(a) Producing Markets: Those markets which mainly assemble the commodity for further distribution to other markets are termed as producing markets. Such markets are located in producing areas.

(b) Consuming Markets: Markets which collect the produce for final disposal to the consuming population are called consumer markets. Such markets are generally located in areas where production is inadequate, or in thickly populated urban centres.

10. On the Basis of Extent of Public Intervention

Based on the extent of public intervention, markets may be placed in any one of the following two classes:

(a) Regulated Markets: These are those markets in which business is done in accordance with the rules and regulations framed by the statutory market organization representing different sections involved in markets. The marketing costs in such markets are standardized and, marketing practices are regulated.

(b) Unregulated Markets: These are the markets in which business is conducted without any set rules and regulations. Traders frame the rules for the conduct of the business and run the market. These markets suffer from many ills, ranging from unstandardised charges for marketing functions to imperfections in the determination of prices.

11. On the Basis of Type of Population Served

On the basis of population served by a market, it can be classified as either urban or rural market.

(a) Urban Market: A market which serves mainly the population residing in an urban area is called an urban market. The nature and quantum of demand for agricultural products arising from the urban population is characterized as urban market for farm products.

(b) Rural Market: The word rural market usually refers to the demand originating from the rural population. There is considerable difference in the nature of embedded services required with a farm product between urban and rural demands.

Rural markets generally have poor marketing facilities as compared to urban markets. According to the survey of the Directorate of Marketing and Inspection (DMI) of Government of India, only 46 per cent of rural primary markets, of the country have the facility of market yards; 6.4 per cent have office buildings, 3.2 per cent have cattle shed, 3 per cent have canteen, 4.9 per cent have storage facilities, 5.1 per cent have auction platforms, 12.9 per cent have drinking water facility and 5.2 per cent markets have electricity facility. Marketing support services such as godowns, cleaning, price information and extension services were found completely non-existent in most of these rural markets.

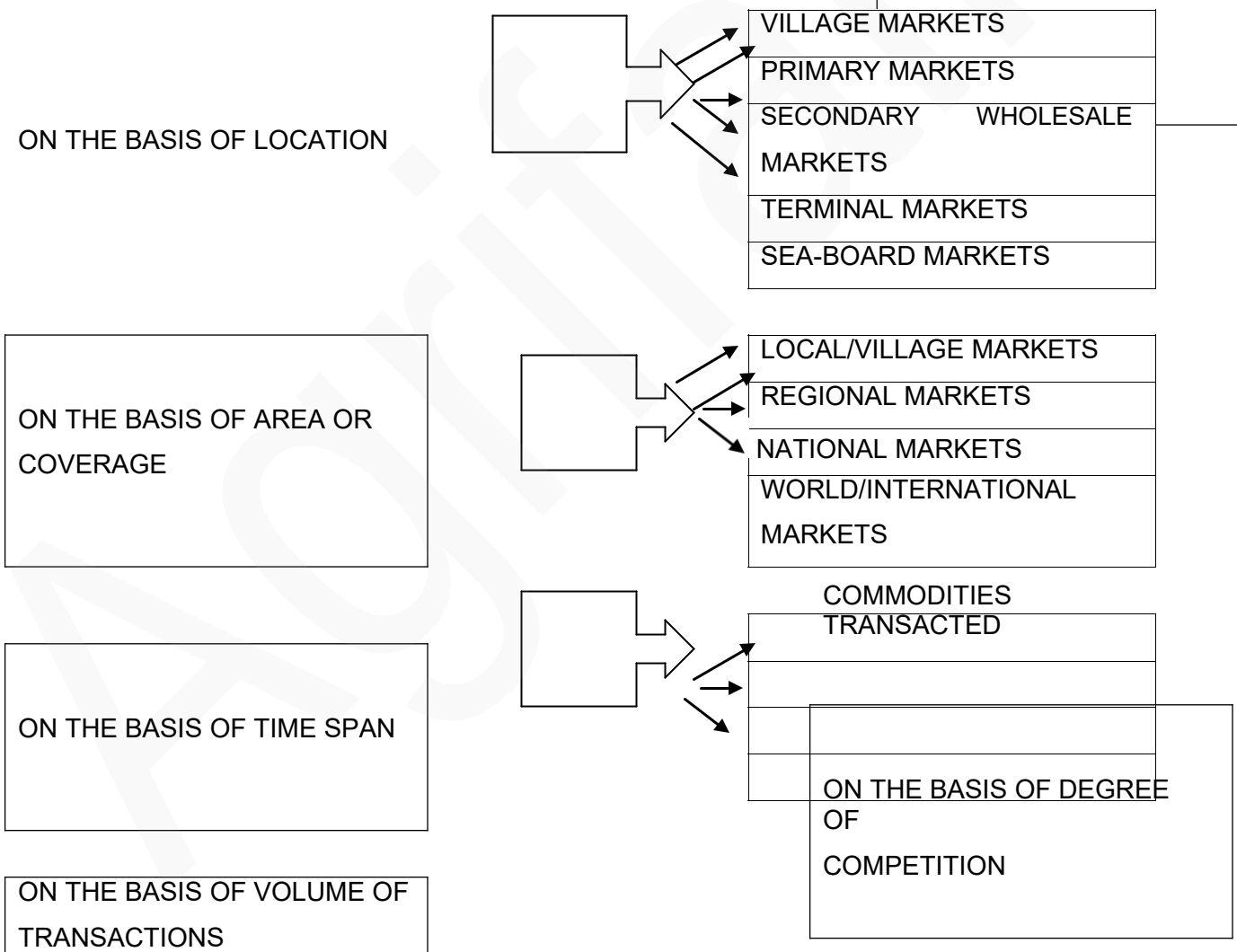
12. On the Basis of Market Functionaries and Accrual of Marketing Margins

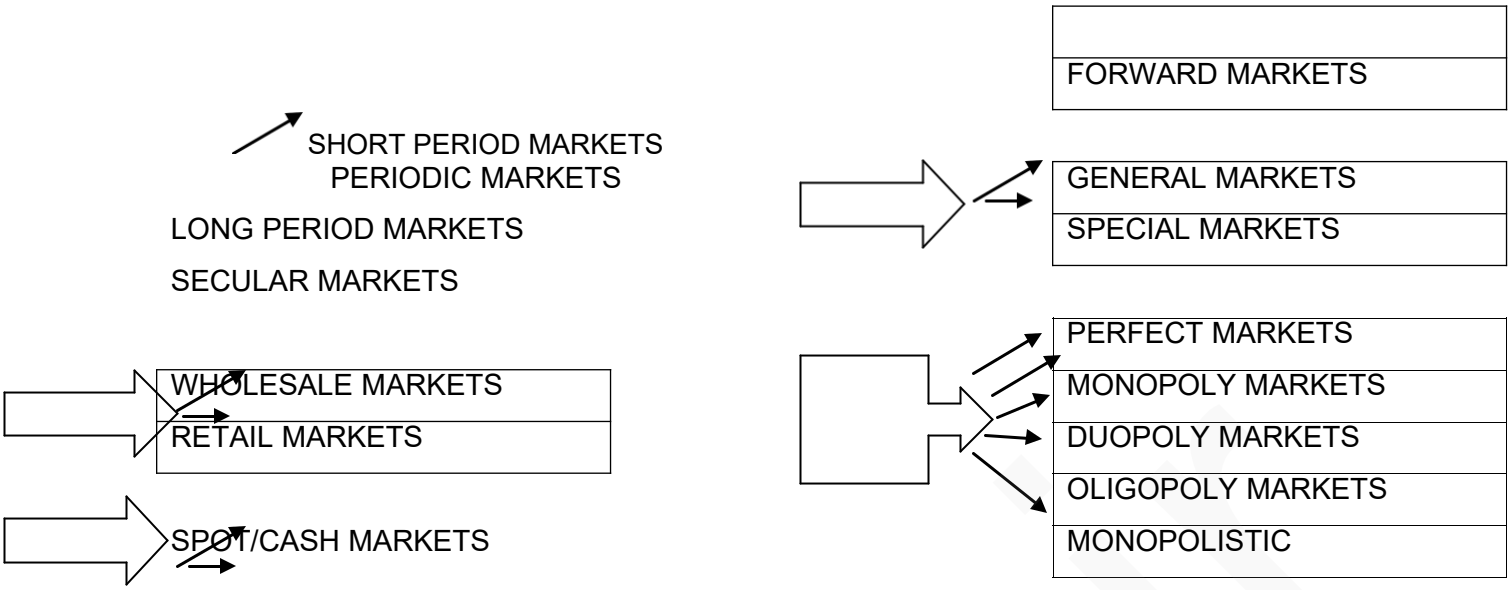
Markets can also be classified on the basis of as to who are the market functionaries and to whom the marketing margins accrue. Over the years, there has been a considerable increase in the producers or consumers co-operatives or other organizations handling marketing of various products. Though private trade still handles bulk of the trade in farm products, the co-operative marketing has increased its share in

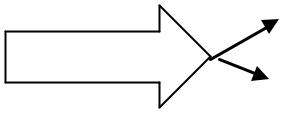
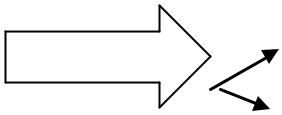
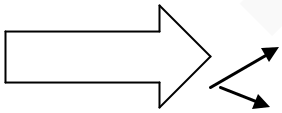
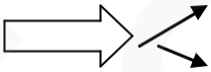
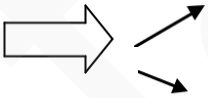
the trade of some agricultural commodities like milk, fertilizers, sugarcane and sugar. In the case of marketing activities undertaken by producers or consumers co-operatives, the marketing margins are either negligible or shared amongst their members. In some cases, farmers themselves work as sellers of their produce to the consumers. On the basis, the market can be (**a) farmers markets, (b) cooperative markets or (c) general markets.**

It must be noted that each market or market place can be classified on the basis of the 12 criteria mentioned above. A 12-dimensional classification of markets is shown in Chart 1.1.

Chart: 1.1 12 – Dimensional Classification of Markets




FORWARD MARKETS
SHORT PERIOD MARKETS
PERIODIC MARKETS
LONG PERIOD MARKETS
SECULAR MARKETS
GENERAL MARKETS
SPECIAL MARKETS
WHOLESALE MARKETS
RETAIL MARKETS
SPOT/CASH MARKETS
PERFECT MARKETS
MONOPOLY MARKETS
DUOPOLY MARKETS
OLIGOPOLY MARKETS
MONOPOLISTIC

		COMPETITIVE MARKETS
ON THE BASIS OF NATURE OF COMMODITIES		COMMODITY MARKETS CAPITAL MARKETS
ON THE BASIS OF STAGE OF MARKETING		PRODUCING MARKETS CONSUMING MARKETS
ON THE BASIS OF EXTENT OF PUBLIC INTERVENTION		REGULATED MARKETS UN-REGULATED MARKETS
ON THE BASIS OF TYPE OF POPULATION SERVED		URBAN MARKETS RURAL MARKETS
ON THE BASIS OF MARKET FUNCTIONARIES AND ACCRUAL OF MARKETING MARGINS		FARMERS MARKETS CO-OPERATIVE MARKETS GENERAL MARKETS

Importance of Agricultural Marketing

Agricultural marketing plays an important role not only in stimulating production and consumption, but in accelerating the pace of economic development. Its dynamic functions are of primary importance in promoting economic development. For this reason, it has been described as the most important multiplier of agricultural development.

India's age-old farming practices have taken a turn in recent decades. There has been a technological breakthrough – the evolution of high-yielding variety seeds, increasing use of fertilizers, insecticides, pesticides, the installation of pumping sets, and tractorization. This technological breakthrough has led to a substantial increase in production on the farms and to the larger marketable and marketed surplus. To maintain this tempo and pace of increased production through technological development, an assurance of remunerative prices to the farmer is a prerequisite, and this assurance can be given to the farmer by developing an efficient marketing system.

The agricultural marketing system plays a dual role in economic development in countries whose resources are primarily agricultural. Increasing demands for money with which to purchase other goods leads to increasing sensitivity to relative prices on the part of the producers, and specialization in the cultivation of those crops on which the returns are the greatest, subject to socio-cultural, ecological and economic constraints. It is the marketing system that transmits the crucial price signals. On the other hand, and in order to sustain the growth of the non-agricultural sector, resources have to be extracted from the agricultural sector – physical resources to guarantee supplies of food and raw materials for the agro-industry and financial resources for investment in non-farm economy as well as for re-investment in agriculture.

On the basis of IADP experience, Kiehl has shown that the "marketing problem" begins to emerge in the process of shifting from traditional to modern agriculture because of production surpluses generated by the shift. Indeed, the term modern agriculture implies a market-oriented agriculture. The scope for moving towards modern agriculture must include market dimensions if the momentum of production transformation is to be sustained.

The importance of agricultural marketing in economic development is revealed from the following:

(i) Optimization of Resource use and Output Management

An efficient agricultural marketing system leads to the optimization of resource use and output management. An efficient marketing system can also contribute to an increase in the marketable surplus by scaling down the losses arising out of inefficient processing, storage and transportation. A well-designed system of marketing can effectively distribute the available stock of modern inputs, and thereby sustain a faster rate of growth in the agricultural sector.

(ii) Increase in Farm Income

An efficient marketing system ensures higher levels of income for the farmers reducing the number of middlemen or by restricting the cost of marketing services and the malpractices, in the marketing of farm products. An efficient system guarantees the farmers better prices for farm products and induces them to invest their surpluses in the purchase of modern inputs so that productivity and production may increase. This again results in an increase in the marketed surplus and income of the farmers. If the producer does not have an easily accessible market-outlet where he can sell his surplus produce, he has little incentive to produce more. The need for providing adequate incentives for

increased production is, therefore, very important, and this can be made possible only by streamlining the marketing system.

(iii) Widening of Markets

An efficient and well-knot marketing system widens the market for the products by taking them to remote corners both within and outside the country, i.e., to areas far away from the production points. The widening of the market helps in increasing the demand on a continuous basis, and thereby guarantees a higher income to the producer.

(iv) Growth of Agro-based Industries

An improved and efficient system of agricultural marketing helps in the growth of agro-based industries and stimulates the overall development process of the economy. Many industries like cotton, sugar, edible oils, food processing and jute depend on agriculture for the supply of raw materials.

(v) Price Signals

An efficient marketing system helps the farmers in planning their production in accordance with the needs of the economy. This work is carried out through transmitting price signals.

(vi) Adoption and Spread of New Technology

The marketing system helps the farmers in the adoption of new scientific and technical knowledge. New technology requires higher investment and farmers would invest only if they are assured of market clearance at remunerative price.

(vii) Employment Creation

The marketing system provides employment to millions of persons engaged in various activities, such as packaging, transportation, storage and processing. Persons like commission agents, brokers, traders, retailers, weighmen, hamals, packagers and regulating staff are directly employed in the marketing system. This apart, several others find employment in supplying goods and services required by the marketing system.

(viii) Addition to National Income

Marketing activities add value to the product thereby increasing the nation's gross national product and net national product.

(ix) Better Living

The marketing system is essential for the success of the development programmes which are designed to uplift the population as a whole. Any plan of economic development that aims at diminishing the poverty of the agricultural

population, reducing consumer food prices, earning more foreign exchange or eliminating economic waste has, therefore, to pay special attention to the development of an efficient marketing for food and agricultural products.

(x) Creation of Utility

Marketing is productive, and is as necessary as the farm production. It is, in fact, a part of production itself, for production is complete only when the product reaches a place in the form and at the time required by the consumers. Marketing adds cost to the product, but, at the same time, it adds utilities to the product. The following four types of utilities of the product are created by marketing:

(a) Form Utility: The processing function adds form utility to the product by changing the raw material into a finished form. With this change, the product becomes more useful than it is in the form in which it is produced by the farmer. For example, through processing, oilseeds are converted into oil, sugarcane into sugar, cotton into cloth and wheat into flour and bread. The processed forms are more useful than the original raw materials.

(b) Place Utility: The transportation function adds place utility to products by shifting them to a place of need from the place of plenty. Products command higher prices at the place of need than at the place of production because of the increased utility of the product.

(c) Time Utility: The storage function adds time utility to the products by making them available at the time when they are needed.

(d) Possession Utility: The marketing function of buying and selling helps in the transfer of ownership from one person to another. Products are transferred through marketing to persons having a higher utility from persons having a low utility.

The foodgrain marketing system is more important in India than the marketing of other agricultural commodities because of the following reasons:

(a) Foodgrains account for around two-thirds of the gross cropped area and 40 per cent of the gross value of crop output in the country. Foodgrain marketing, therefore, provides income to most Indian farmers so that they may buy the required inputs for the farm as well as purchase items of domestic need;

(b) The foodgrain marketing business provides livelihood to lakhs of traders, processors, commission agents and other persons engaged in the foodgrain trade; and

(c) The foodgrain marketing system helps in providing food for consumers and fodder for livestock.

Model Quiz

1. Agricultural marketing is a process which starts with _____ of a saleable farm commodity.
2. The subject matter of agricultural marketing includes _____ as well as _____ marketing.
3. The word MARKET originated from the latin word _____
4. _____ markets are located in towns near the centres of production of agricultural commodities
5. Commodity exchanges exist in _____ markets.
6. _____ markets are of a permanent nature.
7. Which of the following is an imperfect market?

a. Monopoly b. oligopoly c. both a and b d. none of these Ans: c

8. In duopsony market there will be

a. One buyer b. one seller c. two buyers d. two sellers. Ans : c

9. Pick out the wrong statement Ans: d

   a. Heterogenous and differentiated form of a commodity is noticed in monopolistic competition.
   b. Different trade marks are used in monopolistic competition.
   c. Different prices prevail for the same basic product.
   d. Sellers in monopolistic competition mutually agree to charge a common price.

10. Converting groundnut into oil creates

a. Place utility b. form utility c. time utility d. possession utility. Ans: b.

11. Transport function of marketing creates

a. Place utility b. form utility c. time utility d. possession utility. Ans: a.

12. Storing milk creates

a. Place utility b. form utility c. time utility d. possession utility. Ans: c.

13.ABC company buying potatoes from XYZ trader results in

a. Place utility b. form utility c. time utility d. possession utility. Ans: d.

TRUE or FALSE

1. Commodities traded in secular markets are not durable in nature. (False)
2. Retail markets are very near to consumers. (True)
3. In forward markets, exchange of commodity takes place in future time. (True)

4. In perfect markets, commodity prices at a point of time differ only by the cost of transport between the markets. (true)
5. Fertilizer market is an example of oligopoly market. (False)
6. Raw materials are sold in capital market. (False)
7. Retail markets are located in the consuming markets. (True)
8. Traders frame the rules for the conduct of the business in regulated markets. (False)
9. Marketing margins are usually high in cooperative marketing. (False)
10. Number and size of the firms existing in the market is a measure of market conduct.(False)

CHAPTER 2

MARKET STRUCTURE CONDUCT AND PERFORMANCE

Market Structure – Meaning

The term *structure* refers to something that has organization and dimension – shape, size and design; and which is evolved for the purpose of performing a function. A function modifies the structure, and the nature of the existing structure limits the performance of functions. By the term market structure we refer to the size and design of the market. It also includes the manner of the operation of the market. Some of the expressions describing the market structure are:

1. Market structure refers to those organizational characteristics of a market which influence the nature of competition and pricing, and affect the conduct of business firms,

2. Market structure refers to those characteristics of the market which affect the traders' behaviour and their performances,

3. Market structure is the formal organization of the functional activity of a marketing institution.

An understanding and knowledge of the market structure is essential for identifying the imperfections in the performance of a market.

Components of Market Structure

The components of the market structure, which together determine the conduct and performance of the market, are:

1. Concentration of Market Power

The concentration of market power is an important element determining the nature of competition and consequently of market conduct and performance. This is measured by the number and size of firms existing in the market. The extent of concentration represents the control of an individual firm or a group of firms over the buying and selling of the produce. A high degree of market concentration restricts the movement of goods between buyers and sellers at fair and competitive prices, and creates an oligopoly or oligopsony situation in the market.

2. Degree of Product Differentiation

Homogeneous or other nature of the product affects the market structure. If products are homogeneous, the price variations in the market will not be wide. When

products are heterogeneous, firms have the tendency to charge different prices for their products. Everyone tries to prove that his product is superior to the products of others.

3. Conditions for entry of Firms in the Market

Another dimension of the market structure is the restriction, if any, on the entry of firms in the market. Sometimes, a few big firms do not allow new firms to enter the market or make their entry difficult by their dominance in the market. There may also be some government restrictions on the entry of firms.

4. Flow of Market Information

A well-organized market intelligence information system helps all the buyers and sellers to freely interact with one another in arriving at prices and striking deals.

5. Degree of Integration

The behaviour of an integrated market will be different from that of a market where there is no or less integration either among the firms or of their activities.

Firms plan their strategies in respect of the methods to be employed in determining prices, increasing sales, coordinating with competing firms and adopting predatory practices against rivals or potential entrants. The structural characteristics of the market govern the behaviour of the firms in planning strategies for their selling and buying operations.

Dynamics of Market Structure – Conduct and Performance

The market structure determines the market conduct and performance. The term market conduct refers to the patterns of behaviour of firms, especially in relation to pricing and their practices in adapting and adjusting to the market in which they function. Specifically, market conduct includes:

(a) Market sharing and price setting policies;

(b) Policies aimed at coercing rivals; and

(c) Policies towards setting the quality of products.

The term market performance refers to the economic results that flow from the industry as each firm pursues its particular line of conduct. Society has to decide the criteria for satisfactory market performance. Some of the criteria for measuring market performance and of the efficiency of the market structure are:

1. Efficiency in the use of resources, including real cost of performing various functions;

2. The existence of monopoly or monopoly profits, including the relationship of margins with the average cost of performing various functions;

3. Dynamic progressiveness of the system in adjusting the size and number of firms in relation to the volume of business, in adopting technological innovations and in finding and/or inventing new forms of products so as to maximize general social welfare.

4. Whether or not the system aggravates the problem of inequalities in inter-personal, inter-regional, or inter-group incomes. For example, inequalities increase under the following situations:

(a) A market intermediary may pocket a return greater than its real contribution to the national product;

(b) Small farmers are discriminated against when they are offered a lower return because of the low quantum of surplus;

(c) Inter-product price parity is substantially disturbed by new uses for some products and wide variations and rigidities in the production pattern between regions.

The market structure, therefore, has always to keep on adjusting to changing environment if it has to satisfy the social goals. A static market structure soon becomes obsolete because of the changes in the physical, economic, institutional and technological factors. For a satisfactory market performance, the market structure should keep pace with the following changes:

(i) Production Pattern

Significant changes occur in the production pattern because of technological, economic and institutional factors. The market structure should be re-oriented to keep pace with such changes. Emergence of producers groups or group marketing practice is likely to alter market structure.

(ii) Demand Pattern

The demand for various products, especially in terms of form and quality, keeps on changing because of change in incomes, the pattern of distribution among consumers, and changes in their tastes and habits. The market structure should be re-oriented to keep it in harmony with the changes in demand.

Change in the consumption pattern and tastes and preferences of consumers leads to specific or exclusive marketing practices followed by the companies to cater to the specific needs of that group.

(iii) Costs and Patterns of Marketing Functions

Marketing functions such as transportation, storage, financing and dissemination of market information, have a great bearing on the type of market structure. Recent policy encourages group marketing or operation of producer groups and this is likely to reduce the number of buyers and/or sellers actually taking part in marketing functions. Government policies with regard to purchases, sales and subsidies affect the performance of market functions. The market structure should keep on adjusting to the changes in costs and government policy. Number of players in the market must be in accordance with the marketing functions performed and size of operations to take advantage of size economy.

(iv) Technological Change in Industry

Technological changes necessitate changes in the market structure through adjustments in the scale of business, the number of firms, and in their financial requirements. Establishment of retail chains and entry of MNCs in the food retailing effected conspicuous change in the structure of vegetable markets in India

Agricultural Marketing and Economic Development

Orderly and efficient marketing of food grains plays an important role in solving the problem of hunger. Most of those who go hungry do so because they can not pay higher prices for food grains. If marketing system is not efficient, price signals arising at the consumers' level are not adequately transferred to the producers, as a result farmers do not get sufficient price incentive to increase the production of the commodities which are in short supply. Thus, an inefficient marketing system adversely affects the living standards of both the farmers and consumers. In agricultural-oriented developing countries like India, agricultural marketing plays a pivotal role in fostering and sustaining the tempo of rural and economic development. Markets trigger the process of development.

The development of an efficient marketing system is important in ensuring that scarce and essential commodities reach different classes of consumers. Marketing is not only an economic link between the producers and the consumers but it also helps to maintain a balance between demand and supply. The objectives of price stability, rapid economic growth and equitable distribution of goods and services cannot be achieved without the support of an efficient marketing system.

Marketing Functions and their Classification

The marketing functions may be classified in various ways. For example, Thomsen has classified the marketing functions into three broad groups. These are:

(i)	Primary Functions	Assembling or Procurement Processing Dispersion or Distribution
(ii)	Secondary Functions	Packing or Packaging Transportation Grading, Standardization and Quality Control Storage and Warehousing Determination or Discovery of Prices Risk Taking Financing Buying and Selling Demand Creation Dissemination of Market Information
(iii)	Tertiary Functions	Banking Insurance Communications – Posts & Telecommunication Supply of Energy – Electricity

Kohls and Uhl have classified marketing functions as follows:

(i)	Physical Functions	Storage and Warehousing Grading Processing Transportation
(ii)	Exchange Functions	Buying Selling
(iii)	Facilitative Functions	Standardization of Grades Financing Risk Taking Dissemination of Market Information

Converse, Huegy and Mitchell have classified marketing functions in a different way. According to them, the classification is as follows:

(i)	Physical Movement Functions	Storage Packing Transportation

		Grading Distribution
(ii)	Ownership Movement Functions	Determining Need Creating Demand Finding Buyers and Sellers Negotiation of Price Rendering Advice Transferring the Title to Goods
(iii)	Market Management Functions	Formulating Policies Financing Providing Organization Supervision Accounting Securing Information

Marketing Agencies

In the marketing of agricultural commodities, the following agencies are involved:

(i) Producers

Most farmers or producers, perform one or more marketing functions. They sell the surplus either in the village or in the market. Some farmers, especially the large ones, assemble the produce of small farmers, transport it to the nearby market, sell it there and make a profit. This activity helps these farmers to supplement their incomes. Frequent visits to markets and constant touch with market functionaries, bring home to them a fair knowledge of market practices. They have, thus, an access to market information, and are able to perform the functions of market middlemen,

(ii) Middlemen

Middlemen are those individuals or business concerns which specialize in performing the various marketing functions and rendering such services as are involved in the marketing of goods. They do this at different stages in the marketing process. The middlemen in foodgrain marketing may, therefore, be classified as follows:

(a) Merchant Middlemen

Merchant middlemen are those individuals who take title to the goods they handle. They buy and sell on their own and gain or lose, depending on the difference in

the sale and purchase prices. They may, moreover, suffer loss with a fall in the price of the product. Merchant middlemen are of following types:

Wholesalers: Wholesalers are those merchant middlemen who buy and sell foodgrains in large quantities. They may buy either directly from farmers or from other wholesalers. They sell foodgrains either in the same market or in other markets. They sell to retailers, other wholesalers and processors. They do not sell significant quantities to ultimate consumers. They own godowns for the storage of the produce.

The wholesalers perform the following functions in marketing:

(a) They assemble the goods from various localities and areas to meet the demands of buyers;

(b) They sort out the goods in different lots according to their quality and prepare them for the market;

(c) They equalize the flow of goods by storing them in the peak arrival season and releasing them in the off-season;

(d) They regulate the flow of goods by trading with buyers and sellers in various markets;

(e) They finance the farmers so that the latter may meet their requirements of production inputs; and

(f) They assess the demand of prospective buyers and processors from time to time, and plan the movement of the goods over space and time.

Retailers: Retailers buy goods from wholesalers and sell them to the consumers in small quantities. They are producers' personal representatives to consumers. Retailers are the closest to consumers in the marketing channel.

Itinerant Traders and Village Merchants: Itinerant traders are petty merchants who move from village to village, and directly purchase the produce from the cultivators. They transport it to the nearby primary or secondary market and sell it there. Village merchants have their small establishments in villages. They purchase the produce of those farmers who have either taken finance from them or those who are not able to go to the market. Village merchants also supply essential consumption goods to the farmers. They act as financers of poor farmers. They often visit nearby markets and keep in touch with the prevailing prices. They either sell the collected produce in the nearby market or retain it for sale at a later date in the village itself.

Mashakhores: This is a local term used for big retailers or small wholesalers dealing in fruits and vegetables. Earlier, the mashakhores used to deal only in one or

two vegetables, purchasing from the commission agents or wholesalers in substantial quantities usually three to four quintals of vegetables like potato, onion, carrot, okra, tomato and spinach. They usually sell to the bulk consumers like hotelwalas, para-miliary units or small retailers/vendors in lots of around 5 kg to 10 kg each. However, in recent years, mashakhores have started retailing to all types of customers without the condition of a minimum quantity. In other words, the mashakhores are now working more like ordinary retailers.

(b) Agent Middlemen

Agent Middlemen act as representatives of their clients. They do not take title to the produce and, therefore, do not own it. They merely negotiate the purchase and/or sale. They sell services to their principals and not the goods or commodities. They receive income in the form of commission of brokerage. They serve as buyers or sellers in effective bargaining. Agent middlemen are of two types:

Commission Agents or Arhatias: A commission agent is a person operating in the wholesale market who acts as the representative of either a seller or a buyer. He is usually granted broad powers by those who consign goods or who order the purchase. A commission agent normally takes over the physical handling of the produce, arranges for its sale, collects the price from the buyer, deducts his expenses and commission, and remits the balance to the seller. All these facilities are extended to buyer-firms as well, if asked for.

Commission agents or arhatias in unregulated markets are of two types, *Kaccha arhatias* and *Pacca arhatias*: Kaccha arhatias primarily act for the sellers, including farmers. They sometimes provide advance money to farmers and itinerant traders on the condition that the produce will be disposed of through them. *Kaccha arhatias* charge *arhat* or commission in addition to the normal rate of interest on the money they advance. A *Pacca arhatia* acts on behalf of the traders in the consuming market. The processors (rice millers, oil millers and cotton or jute dealers) and big wholesalers in the consuming markets employ *Pacca arhatias* as their agents for the purchase of a specified quantity of goods within a given price range.

In regulated markets, only one category of commission agent exists under the name of 'A' class trader. The commission agent keeps an establishment – a shop, a godown and a rest house for his clients. He is, therefore, preferred by the farmers to the co-operative marketing society for the purpose of the sale of the farmer's produce. Commission agents extend the following facilities to their clients:

(i) They advance 40 to 50 per cent of the expected value of the crop as a loan to farmers to enable them to meet their production expenses;

(ii) They act as bankers of the farmers. They retain the sale proceeds, and pay to the farmers as and when the latter require the money;

(iii) They offer advice to farmers for purchase of inputs and sale of products;

(iv) They provide empty bags to enable the farmers to bring their produce to the market;

(v) They provide food and accommodation to the farmers and their animals when the latter come to the market for the sale of their produce;

(vi) They provide storage facility and advance loans against the stored product up to 75 per cent of the value;

(vii) They arrange, if required by the farmer, for the transportation of the produce from the village to the market; and

(viii) They help the farmers in times of personal difficulties.

Brokers: Brokers render personal services to their clients in the market; but, unlike the commission agents, they do not have physical control of the product. The main function of a broker is to bring together buyers and sellers on the same platform for negotiations. Their charge is called brokerage. They may claim brokerage from the buyer, the seller or both, depending on the market situation and the service rendered. They render valuable service to the prospective buyers and sellers, for they have complete knowledge of the market – of the quantity available and the prevailing prices.

Brokers have no establishment in the market. They simply wander about in the market and render services to clients. There is no risk to them. They do not render any other service except to bring the buyers and sellers on the same platform. In most regulated markets, brokers do not play any role because goods are sold by open auction. Their number in foodgrain marketing trade is decreasing. But they still play a valuable role in the marketing of other agricultural commodities, such as gur, sugar, edible oil, cotton seed and chillies.

(c) Speculative Middlemen

Those middlemen who take title to the product with a view to making a profit on it are called speculative middlemen. They are not regular buyers or sellers of produce. They specialize in risk-taking. They buy at low prices when arrivals are substantial and sell in the off-season when prices are high. They do the minimum handling of goods. They make profit from short-run as well as long-run price fluctuations.

(d) Processors

Processors carry on their business either on their own or on custom basis. Some processors employ agents to buy for them in the producing areas, store the produce and process it throughout the year on continuous basis. They also engage in advertising activity to create a demand for their processed products.

(e) Facilitative Middlemen

Some middlemen do not buy and sell directly but assist in the marketing process. Marketing can take place even if they are not active. But the efficiency of the system increases when they engage in business. These middlemen receive their income in the form of fees or service charges from those who use their services. The important facilitative middlemen are:

Hamals or Labourers: They physically move the goods in marketplace. They do unloading from the loading on to bullock carts or trucks. They assist in weighing the bags. They perform cleaning, sieving, and refilling jobs and stitch the bags. Hamals are the hub of the marketing wheel. Without their active co-operation, the marketing system would not function smoothly.

Weighmen: They facilitate the correct weighment of the produce. They use a pan balance when quantity is small. Generally, the scalebeam balance is used. They get payment for their service through the commission agent. The weighbridge system of weighing also exists in big markets.

Graders: These middlemen sort out the product into different grades, based on some defined characteristics, and arrange them for sale. They facilitate the process of prices settlement between the buyer and the seller.

Transport Agency: This agency assists in the movement of the produce from one market to another. The main transport means are the railways and trucks. Bullock carts or camel carts or tractor-trolleys are also used in villages for the transportation of foodgrains.

Communication Agency: It helps in the communication of the information about the prices prevailing, and quantity available, in the market. Sometimes, the transactions take place on the telephone. The post and telegraph, telephone, newspapers, the radio and informal links are the main communication channels in agricultural marketing.

Advertising Agency: It enables prospective buyers to know the quality of the product and decide about the purchase of commodities. Newspapers, the radio, television and cinema slides are the main media for advertisements.

Auctioners: They help in exchange function by putting the produce for auction and bidding by the buyers.

Marketing Institutions

Marketing institutions are business organizations which have come up to operate the marketing machinery. In addition to individuals, corporate, co-operative and government institutions are operating in the field of agricultural marketing.

They perform one or more of the Marketing functions. They assume the role of one or more marketing agencies, described earlier in this section. Some important institutions in the field of agricultural marketing are:

(a) Public Sector Institutions

(i) Directorate of Marketing and Inspection (DMI)

(ii) Commission for Agricultural Costs and Prices (CACP)

(iii) Food Corporation of India (FCI)

(iv) Cotton Corporation of India (CCI)

(v) Jute Corporation of India (JCI)

(vi) Specialized Commodity Boards

- Rubber Board
- Tea Board
- Coffee Board
- Spices Board
- Coconut Board
- Oilseeds and Vegetable Oils Board
- Tobacco Board
- Cardamom Board
- Arecanut Board
- Coir Board
- Silk Board
- National Horticulture Board (NHB)
- National Dairy Development Board (NDDB)

(vii) Others

- Central Warehousing Corporation (CWC)'
- State Warehousing Corporations (SWCs)
- State Trading Corporation (STC)
- Agricultural and Processed Food Export Development Authority (APEDA)
- Export Inspection Council
- Marine Products Export Development Authority (MPEDA)
- Silk Export Promotion Council (SEPC)
- The Cashewnuts Export Promotion Council of India (CEPCI)
- Agricultural Produce Market Committees (APMC)
- State Agricultural Marketing Boards (SAMB)
- Council of State Agricultural Marketing Boards (COSAMB)
- State Directorates of Agricultural Marketing
- Research Institutions and Agricultural Universities

(b) Cooperative Sector Institutions

(i) National Cooperative Development Corporation (NCDC)
(ii) National Agricultural Cooperative Marketing Federation (NAFED)
(iii) National Cooperative Tobacco Growers Federation (NTGF)
(iv) National Consumers Cooperative Federation (NCCF)
(v) Tribal Cooperative Marketing Federation (TRIFED)
(vi) Special Commodity Cooperative Marketing Organizations (Sugarcane, Cotton, Milk)
(vii) State Cooperative Marketing Federations.
(viii)Primary Agricultural Cooperative Marketing Societies

PRODUCER'S SURPLUS

Producer's Surplus of Agricultural Commodities

In any developing economy, the producer's surplus of agricultural product plays a significant role. This is the quantity which is actually made available to the non-producing population of the country. From the marketing point of view, this surplus is more important than the total production of commodities. The arrangements for marketing and the expansion of markets have to be made only for the surplus quantity available with the farmers, and not for the total production. This is because, only a portion of the total

production is sold in the market after personal consumption by the members of farm household and retention in the farm for several reasons.

The rate at which agricultural production expands determines the pace of agricultural development, while the growth in the marketable surplus determines the pace of economic development. An increase in production must be accompanied by an increase in the marketable surplus for the economic development of the country. Though the marketing system is more concerned with the surplus which enters or is likely to enter the market, the quantum of total production is essential for this surplus. The larger the production of a commodity, the greater will be the surplus of that commodity and vice versa. The knowledge of marketed and marketable surplus helps the policy-makers as well as the traders in the following areas:

i. Framing Sound Price Policies: Price support programmes are an integral part of agricultural policies s necessary for stimulating agricultural production. The knowledge of quantum of marketable surplus helps in framing these policies.

ii. Developing Proper Procurement and Purchase Strategies: The procurement policy for feeding the public distribution system has to take into account the quantum and behaviour of marketable and marketed surplus. Similarly, the traders, processors and exporters have to decide their purchase strategies on the basis of marketed quantity

iii. Checking Undue Price Fluctuations: A knowledge of the magnitude and extent of the surplus helps in the minimization of price fluctuations in agricultural commodities because it enables the government and the traders to make proper arrangements for the movement of product from one area, where they are in surplus, to another area which is deficient.

iv Export/Import policies*:* Advance estimates of the surpluses of such commodities which have the potential of external trade are useful in decisions related to the export and import of the commodity. If surplus is expected to be less than what is necessary, the country can plan for imports and if surplus is expected to be more than what is necessary, avenues for exporting such a surplus can be explored.

v. Development of Transport and Storage Systems: The knowledge of marketed surplus helps in developing adequate capacity of transport and storage system to handle it.

Meaning and Types of Producer's Surplus

The producer's surplus is the quantity of produce which is, or can be, made available by the farmers to the non-farm population. The producer's surplus is of two types:

1. Marketable Surplus

The marketable surplus is that quantity of the produce which can be made available to the non-farm population of the country. It is a theoretical concept of surplus. The marketable surplus is the residual left with the producer-farmer after meeting his requirements for family consumption, farm needs for seeds and feed for cattle, payment to labour in kind, payment to artisans – carpenter, blacksmith, potter and mechanic – payment to landlord as rent, and social and religious payments in kind. This may be expressed as follows:

$$MS=P–C$$

Where

MS = Marketable surplus

P = Total production, and

C = Total requirements (family consumption, farm needs, payment to labour, artisans, landlord and payments for social and religious work).

2. Marketed Surplus

Marketed surplus is that quantity of the produce which the producer-farmer actually sells in the market, irrespective of his requirements for family consumption, farm needs and other payments. The marketed surplus may be more, less or equal to the marketable surplus.

Whether the marketed surplus increases with the increase in production has been under continual theoretical scrutiny. It has been argued that poor and subsistence farmers sell that part of the produce which is necessary to enable them to meet their cash obligations. This results in distress sale on some farms. In such a situation, any increase in the production of marginal and small farms should first result in increased on-farm consumption.

An increase in the real income of farmers also has a positive effect on on-farm consumption because of positive income elasticity. Since the contribution of this group to the total marketed quantity is not substantial, the overall effect of increase in production must lead to an increase in the marketed surplus.

Bansil writes that there is only one term – marketable surplus. This may be defined subjectively or objectively. Subjectively, the term marketable surplus refers to

theoretical surplus available for sale with the producer-farmer after he has met his own genuine consumption requirements and the requirements of his family, the payment of wages in kind, his feed and seed requirements, and his social and religious payments. Objectively, the marketable surplus is the total quantity of arrivals in the market out of the new crop.

Relationship between marketed surplus and marketable surplus

The marketed surplus may be more, less or equal to the marketable surplus, depending upon the condition of the farmer and type of the crop. The relationship between the two terms may be stated as follows:

$$\text{Marketed surplus} \begin{matrix} > \\ < \\ = \end{matrix} \text{Marketable surplus}$$

1. The marketed surplus is more than the marketable surplus when the farmer retains a smaller quantity of the crop than his actual requirements for family and farm needs. This is true especially for small and marginal farmers, whose need for cash is more pressing and immediate. This situation of selling more than the marketable surplus is termed as distress or forced sale. Such farmers generally buy the produce from the market in a later period to meet their family and/or farm requirements. The quantity of distress sale increases with the fall in the price of the product. A lower price means that a larger quantity will be sold to meet some fixed cash requirements.
2. The marketed surplus is less than the marketable surplus when the farmer retains some of the surplus produce. This situation holds true under the following conditions:

(a) Large farmers generally sell less than the marketable surplus because of their better retention capacity. They retain extra produce in the hope that they would get a higher price in the later period. Sometimes, farmers retain the produce even up to the next production season.

(b) Farmers may substitute one crop for another crop either for family consumption purpose or for feeding their livestock because of the variation in prices. With the fall in the price of the crop relative to a competing crop, the farmers may consume more of the first and less of the second crop.

3. The marketed surplus may be equal to the marketable surplus when the farmer neither retains more nor less than his requirement. This holds true for perishable commodities and of the average farmer.

Factors Affecting Marketable Surplus

The marketable surplus differs from region to region and, within the same region, from crop to crop. It also varies from farm to farm. On a particular farm, the quantity of marketable surplus depends on the following factors:

(i) Size of Holding: There is positive relationship between the size of the holding and the marketable surplus.

(ii) Production: The higher the production on a farm, the larger will be the marketable surplus, and vice versa.

(iii) Price of the Commodity: The price of the commodity and the marketable surplus have a positive as well as a negative relationship, depending upon whether one considers the short and long run or the micro and macro levels.

(iv) Size of Family: The larger the number of members in a family, the smaller the surplus on the farm.

(v) Requirement of Seed and Feed: The higher the requirement for these uses, the smaller the marketable surplus of the crop.

(vi) Nature of Commodity: The marketable surplus of non-food crops is generally higher than that for food crops. For example, in the case of cotton, jute and rubber, the quantity retained for family consumption is either negligible or very small part of the total output. For these crops, a very large proportion of total output is marketable surplus. Even among food crops, for such commodities like sugarcane, spices and oilseeds which require some processing before final consumption, the marketable surplus as a proportion of total output is larger than that for other food crops.

(vii) Consumption Habits: The quantity of output retained by the farm family depends on the consumption habits. For example, in Punjab, rice forms a relatively small proportion of total cereals consumed by farm-families compared to those in southern or eastern states. Therefore, out of a given output of paddy/rice, Punjab farmers sell a greater proportion of paddy/rice, Punjab farmers sell a greater proportion than that sold by rice eating farmers of other states.

The functional relationship between the marketed surplus of a crop and factors affecting the marketed surplus may be expressed as:

$M = f(x_1, x_2, x_3, x_4)$

where

M	=	Total marketed surplus of a crop in quintals

x_1	=	Size of holding in hectares
x_2	=	Size of family in adult units
x_3	=	Total production of the crop in quintals
x_4	=	Price of the crop

Relationship between prices and marketable surplus

Two main hypotheses have been advanced to explain the relationship between prices and the marketable surplus of foodgrains.

Inverse Relationship

There is an inverse relationship between prices and the marketable surplus. This hypothesis was presented by P N. Mathur and M. Ezekiel. They postulate that the farmers' cash requirements are nearly fixed, and given the price level, the marketed portion of the output is determined. This implies that the farmers' consumption is a residual, and that the marketed surplus is inversely proportional to the price level. This behaviour assumes that farmers have inelastic cash requirements.

The argument is that, in the poor economy of underdeveloped countries, farmers sell that quantity of the output which gives them the amount of money they need to satisfy their cash requirements; they retain the balance of output for their own consumption purpose. With a rise in the prices of foodgrains, they sell a smaller quantity of foodgrains to get the cash they need, and vice versa. In other words, with a rise in the prices of foodgrains, they sell a smaller quantity of foodgrains to get the cash they need, and vice versa. In other words, with a rise in price, farmers sell a smaller, and with the fall in price, they sell a larger quantity. Olson and Krishnan have argued that the marketed surplus varies inversely with the market price. They contend that a higher price for a subsistence crop may increase the producer's real income sufficiently to ensure that the income effect on demand for the consumption of the crop outweighs the price effect on production and consumption.

Positive Relationship

V.M.Dandekar and Rajkrishna put forward the case for a positive relationship between prices and the marketed surplus of food grains in India. This relationship is based on the assumption that farmers are price conscious. With a rise in the prices of food grains, farmers are tempted to sell more and retain less. As a result, there is increased surplus. The converse, too, holds true.

Model Quiz

1.Market conduct includes

a. Market sharing and price setting policies
b. Policies aimed at coercing rivals
c. Policies toward setting the quality of products
d. Efficiency in the use of resources

Ans: b.

2. Knowledge of marketable surplus helps the

a. farming population b. non farm population c. both a and b d. neither a nor b.

Ans: c

3. Marketable surplus will be more in the case of

a. rice b. jowar c.cotton d. gram

Ans: c

4. Marketable surplus will be less in the case of

a. rice b. cotton c.sugarcane d. tomato Ans: a

5. All the following have positive relationship with marketable surplus except

a. size of family b. size of holding c. quantity of production d. a and b

Ans: a.

6. Commodity price and marketed surplus would have negative relationship in the case of a. rice b. cotton c. sugarcane d. jute.

7.Primary function of marketing includes

a. Procurement b. transport c. storage d. banking Ans: a.

8.Secondary function of marketing includes

a. Assembling b. grading c. insurance d. banking Ans: b.

9.Tertiary function of marketing includes

a. Assembling b. transport c. storage d.insurance Ans: d

10.Physical function of marketing includes

a. Grading b. buying c. selling d. financing Ans: a.

11.Exchange function of marketing includes

a. Processing b. transport c. selling d. standardization Ans:c.

12.Facilitative function of marketing refers to

a. Processing b. grading c.buying d. financing Ans: d.

13.Physical movement function of marketing refers to

a. Storage b. Creating demand c. financing d. None of these Ans : d.

14.Ownership movement function of marketing refers to

a. Packaging b. distribution c. negotiation of price d. supervision Ans: c.

15.Market management function of marketing refers to

a. Distribution b. rendering advice c. determining need d. financing Ans: c.

16.Wholesalers perform the following functions except

a. Assembling b. sorting c. advancing loans d. none of these Ans: d.

17.Commission agents earn their income as

a. Profit b. per cent of sales value c. per cent of quantity sold d. service charge Ans: b.

18.Brokers differ from commission agents by

a. Not owning the commodity b. providing financial assistance to farmers c. g services they offer d. earning profit. Ans: c.

19.Risk taking is a function of

a. Agent middlemen b. merchant middlemen c. speculator d. facilitative middlemen Ans: c.

20.Pick the odd man out from the following

a. FCI b. CWC c. NAFED d. Spices board Ans: c.

TRUE or FALSE

1. Growth in producers' surplus determines the pace of economic development. (True)
2. Minimising the price fluctuations in agricultural commodities requires knowledge on marketable surplus. (True)
3. Export – import policies of a country is designed based on the marketable surplus expected in the country. (True)
4. Higher the rice price in the market, more will be the supply of paddy to the market by the farmers. (False)
5. Agent middlemen do not take title to the produce. (True)
6. Brokers do not take title to the produce. (True)
7. Processors play a dominant role in agricultural marketing in developed countries. (True)
8. Commission agents are important for better performance of Rythu bazaars in India. (False)

CHAPTER 3
MARKETING CHANNELS, MARKETING COST, MARKETING EFFICIENCY AND MARKET INTEGRATION

Marketing Channel

In this chapter, we discuss marketing agencies, marketing institutions and marketing channels through which farm products move from producers to consumers. A very small proportion of farm produce moves directly from farmers to consumers. Most of the farm products move to consumers through several agencies/institutions and channels. The role played by marketing agencies and institutions in the marketing system in quite indispensable as these perform important marketing functions. They also help in expanding the markets for farm products and add value to the products.

The production of a produce is complete only when it reaches the hands of those who need it – the consumers. All the commodities cannot be produced in all the areas because of variations in agro-climatic conditions. Hence, there is a need for their movement from producers to consumers.

There are two main routes through which agricultural commodities reach the consumers:

(i) Direct Route: Sometimes, agricultural commodities directly pass from producers to consumers. There is a complete absence of middlemen or intermediaries. But it is only a very small proportion of the agricultural commodities which moves directly from producers to consumers.

(ii) Indirect Route: Agricultural commodities generally move from producers to consumers through intermediaries or middlemen. The number of intermediaries may vary from one to many. In the modern era of specialized production, both the horizontal and vertical distance between the producer and the consumer has increased, resulting in a reduction of direct sales. The role of market middlemen has increased in the recent past because a substantial part of the produce moves through them.

The role, functions and other details of some of these institutions have been discussed in relevant chapters.

Marketing Channels

Marketing channels are routes through which agricultural products move from producers to consumers. The length of the channel varies from commodity to commodity, depending on the quantity to be moved, the form of consumer demand and degree of regional specialization in production.

Definition

A marketing channel may be defined in different ways according to Moore *et al*., the chain of intermediaries through whom the various foodgrains pass from producers to consumers constitutes their marketing channels. Kohls and Uhl have defined marketing channel as alternative routes of product flows from producers to consumers.

Factors Affecting Length of Marketing Channels

Marketing channels for agricultural products vary from product to product, country to country, lot to lot and time to time. For example, the marketing channels for fruits are different from those for foodgrains. Packagers play a crucial role in the marketing of fruits. The level of the development of a society or country determines the final form in which consumers demand the product. For example, consumers in developed countries demand more processed foods in a packed form. Wheat has to be supplied in the form of bread. Most enables have to be cooked and packed properly before they reach the consumers. Processors play a dominant role in such societies. In developing countries like India, However, most foodgrains are purchased by consumers in the raw form and processing is done at the consumer's level. Again, the lots originating at small farms follow different route or channels from the one originating in large farms. For example, small farms usually sell their produce to village traders; it may or may not enter the main market. But large farms usually sell their produce in the main market, where it goes into the hands of wholesalers. The produce sold immediately after the harvest usually follows longer channel than the one sold in later months.

With the expansion in transportation and communication network, changes in the structure of demand and the development of markets, marketing channels for farm products in India have undergone a considerable change, both in terms of length and quality.

Marketing Channels for Cereals

Marketing channels for various cereals in India are more or less similar, except the channel for paddy (or rice) where rice millers come into the picture. For pulse crops, *dal* mills appear prominently in the channel. The flow chart in Fig.5.1 enables us to know the marketing channels for general food grains in India.

Some common marketing channels for wheat have been identified as follows:

(i) Farmer → consumers;

(ii) Farmer → retailer or village trader → consumer;

(iii) Farmer → wholesaler → retailer → consumer;

(iv) Farmer → village trader → wholesaler → retailer → consumer;

(v) Farmer → co-operative marketing society → retailer → consumer;

(vi) Farmer → Govt. agency (FCI, etc.) → fair price shop → consumer;

(vii) Farmer → wholesaler → flour miller → retailer → consumer.

The channels for paddy-rice and pulses arebroadly the same, except that the rice millers or *dal* millers come into the picture before the produce reaches retailers or consumers.

Marketing Channels for Oilseeds

Marketing channels for oilseeds are different from those for foodgrains, mainly because the extraction of oil from oilseeds is an important marketing function of oilseeds. The flow chart in Fig.5.2 reveals the movement of oilseeds from producers to consumers in India.

The most common marketing channels for oilseeds in India are:

(i) Producer to consumer (who either directly consumes the oilseeds or gets it processed on custom basis);

(ii) Producer to village trader to processor to oil retailer to consumer;

(iii) Producer to oilseed wholesaler to processor to oil wholesaler to oil retailer to oil consumer;

(iv) Producer to village trader to processor to oil consumer;

(v) Producer to government agency to processor to oil wholesaler to oil retailer to oil consumer.

Marketing Channels for Fruits and Vegetables

Marketing channels for fruits and vegetables vary from commodity to commodity and from producer to producer. In rural areas and small towns, many producers performs the function of retail sellers. Large producers directly sell their produce to the wholesalers or processing firms. Some of the common marketing channels for vegetables and fruits are:

(i) Producer → consumer;

(ii) Producer → primary wholesalers → retailers or hawkers → consumer;

(iii) Producer → processors (for conversion into juices, preserves, etc.);

(iv) Producers → primary wholesalers → processors;

(v) Producers → primary wholesalers → secondary wholesalers → retailers or hawkers → consumers;

(vi) Producers → local assemblers → primary wholesalers →

retailers or hawkers ⟶ consumers.

An important feature of marketing channels for fruits and vegetables is that these commodities just move to some selected large cities/centres and subsequently are distributed to urban population and other medium size urban market centres. The wholesale markets of these urban centres work as transit points and thus play an important role in the entire marketing channel for fruits and vegetables. Large wholesale markets for fruits and vegetables are concentrated in 10 major cities *viz*., Delhi, Kolkata, Bangalore, Chennai, Mumbai, Jaipur, Nagpur, Vijayavada, Lucknow and Varanasi. These cities account for 75 per cent of vegetables marketed in major urban areas in India. Further, the transit trade takes place through the cities with more than 20 lakh population which account for 68 per cent of the fruits and vegetables grown in the respective regions. There are 65 urban wholesale markets for fruits and 81 for vegetables. Each market, on an average, serves a population of about 7 lakhs.

Marketing Channels for Eggs

The prevalent marketing channels for eggs are:

(i) Producer ⟶ consumer;

(ii) Producer ⟶ retailer ⟶ consumer;

(iii) Producer ⟶ wholesaler ⟶ retailer ⟶ consumer;

(iv) Producer ⟶ co-operative marketing society ⟶ wholesalers ⟶ Retailers ⟶ consumers;

(v) Producers ⟶ egg powder factory.

Sometimes, the wholesaling and retailing functions are performed by a single firm in the channel.

Marketing Channels for Pulses

Most of the studies on the identification of marketing channels for agricultural commodities have concentrated on a concept of marketing channel which defines the flow of the produce from the producer (farmer) to the consumer. But as the commercialization (market orientation) of agriculture is increasing and as the farmers and consumers are located in different states or different countries, the marketing channels that are emerging go across state or even national boundaries. This apart, unless quantities flowing into various channels are estimated, the relative importance of alternative channels cannot be assessed. Such an analysis was done by Acharya for gram grains in Rajasthan. According to this study, there are three points of entry of gram grain in the marketing channel, *viz*., farmer level, wholesaler level (from outside the

state) and processor level (also from outside the state). There are 28 marketing channels, village traders appear in 8 channels, grain wholesalers appear in 18 channels, processors appear in 15 channels, dal (split) wholesalers appear in 5 channels and retailers appear in 15 channels. Assuming the farmers' surplus entering the marketing channel as 100 units, the entry from outside the state at wholesaler and processor level was 4.24 per cent of the farmers surplus. The percentage quantities moving in 28 channels are given in Table 3.1.

Table 3.1

Quantity of Marketed Surplus of Gram moving in Various Marketing Channels

Channel No.	Agencies involved							Quantity (%)
1.	F	-	-	-	-	-	C	0.17
2.	F	-	-	-	-	R	C	0.76
3.	F	V	-	-	-	-	C	0.91
4.	F	V	-	-	-	R	C	0.17
5.	F	V	W	-	-	R	C	0.65
6.	F	V	W	-	-	-	G	0.13
7.	F	V	W	P	-	R	C	0.02
8.	F	V	W	P	S	R	C	0.70
9.	F	V	W	P	-	-	O	1.68
10.	F	V	W	-	-	-	O	3.30
11.	F	V	W	-	-	R	C	8.80
12.	F	-	W	-	-	-	H	1.76
13.	F	-	W	P	-	R	C	0.32
14.	F	-	W	P	S	R	C	9.44
15.	F	-	W	P	-	-	O	22.80
16.	F	-	W	-	-	-	O	44.88
17.	F	-	-	P	-	R	C	0.04
18.	F	-	-	P	S	R	C	1.02
19.	F	-	-	P	-	-	O	2.45
	Sub Total							100.00
20.	O	-	-	P	-	-	O	1.45
21.	O	-	-	P	-	-	C	0.02
22.	O	-	-	P	S	R	C	0.60

	Sub Total							2.07
23.	O	-	W	-	-	R	C	0.22
24.	O	-	W	-	-	-	G	0.04
25.	O	-	W	-	-	-	O	1.11
26.	O	-	W	P	-	-	O	0.56
27	O	-	W	P	S	R	C	0.23
28.	O	-	W	P	-	R	C	0.01
	Sub Total							2.17
	Grand Total							104.24

F = Farmer, C = Consumer, R = Retailer, V = Village Trader,

W = Wholesaler, G = Government Agency, P = Processor,

S = Dal Wholesaler O = Outside Rajasthan

Source: Acharya, S.S., Agricultural Production, Marketing and Price Policy in India, Mittal Publication, New Delhi, 1998, pp.308-12.

Innovative Marketing Channels (Direct Marketing)

It has been realized that the marketing channel for farm products which are highly perishable (fruits, vegetables and flowers) should be as short as possible. Perishable farm produce should move quickly from farmers to consumers. If farmers directly sell their produce to the consumers, it will not only save losses but also increase farmer's share in the price paid by the consumers. Therefore, direct marketing by the farmers is being encouraged as an alternative channel. Some examples of these channels are given below:

(i) Apni Mandi / Kisan Mandi

An innovative concept of 'Apni Mandi' has been introduced in some states. Apni Mandi is also called 'Kisan Mandi', as it is different from the traditional mandi or market yard, where the produce moves to the buyer through either a commission agent or trader. In Apni Mandi there is a direct contact between the farmer producer and the buyer who is generally the consumer. This system does away with the middlemen. In Apni Mandi, farmers sell their produce directly to the consumers without involvement of the middlemen. The price spread in Apni Mandi is considerable low. These are working satisfactorily in the case of fruits and vegetables. These, 'Apni Mandi' are similar to the Saturday markets of United Kingdom and United States of America.

Objectives

The main objectives of popularizing the concept of Apni Mandi are:

(i) better marketing of agricultural produce especially of fruits and vegetables;

(ii) ensuring direct contact of the producer-farmers and the consumers and thereby enhancing the distributional efficiency of the marketing system;

(iii) increasing the profitability of agricultural crops for the producers by minimization of marketing costs and the margin of the middlemen;

(iv) ensuring the availability of fresh fruits and vegetables and other farm produce at reasonable prices to the consumers;

(v) removing social inhibitions among the farmers for retail sale of their produce;

(vi) encouraging additional employment to the producers and thereby enhancing their incomes;

(vii) promoting rational integration by inviting the farmers of other states to sell the produce grown by them directly to the consumers in Apni Mandis of other states; and

(viii) providing business techniques to the farmers so that in the long-run they may adopt this practice for other crops and enterprises too.

History

The first Apni Mandi was started in Punjab by the Punjab Mandi Board at Chandigarh in February, 1987. Punjab Mandi Board took the initiative with a view to providing small farmers around cities a direct access to consumers. Similarly, in Haryana, the first Apni Mandi was started at Karnal in 1988. In Rajasthan also, this scheme has been introduced in several district towns. The initiative is worth emulating.

Functioning

The market committee of the area where Apni Mandi is located provides space, water, sheds, counters, balances and other facilities to the farmers in Apni Mandis. The Market Committee Staff need to work hard with dedication for the success of Apni Mandis. The State Marketing Boards provide financial assistance to the Market Committees for these services rendered by them to the Apni Mandi. This scheme is being implemented with certain resistance from middlemen. Some farmers also have reservations about the success of the scheme as it assumes adequate skills of retailing on the part of farmers. However, farmers as well as consumers would benefit from the Apni Mandi Scheme and its popularity may pick up after sometime.

(ii) Hadaspar Vegetable Market

Hadaspar vegetable market is a model market for direct marketing of vegetables in Pune city. This sub-market yard is situated nine kms away from Pune city. This belongs to the Pune Municipal Corporation and the fee for using the space in the market is collected by the municipal corporation from the farmers. This is one of the ideal markets in the country for marketing of vegetables. In this market there are no commission agents/middlemen. The market has modern weighing machines for weighing the produce. Buyers purchase vegetables in lots of 100 kgs. or 100 numbers. The produce is weighed in the presence of licensed weighmen of the market committee and sale bill is prepared. The purchasers make payment of the value of produce directly to the farmer. The purchaser is allowed to leave the market place along with the produce after showing the sale bill at the gate of the market. Disputes, if any, arising between buyers and sellers are settled by the supervisor of the market committee after calling the concerned parties. The market committee collects one per cent sale proceeds as market fee for the services and facilities provided by the committee to the farmers and buyers.

(iii) Rythu Bazars

Rithu bazaars have been established in the major cities of Andhra Pradesh state with the prime objective to provide direct link between farmers and consumers in the marketing activity of fruits, vegetables and other essential food items. Both producers and consumers are benefited from Rythu Bazars as producer's share in the consumers rupee is more by 15 to 40 per cent and consumer's get fresh vegetables, fruits and food items at 20 to 35 per cent less prices than the prevailing prices in nearby markets. Further, marketing costs are at the minimum level as middlemen are completely eliminated from the marketing activities in Rythu Bazars. The maintenance expenditure of Rythu Bazars is being met from financial sources of Agricultural Produce Market Committee (APMC) nearer to the Rythu Bazars.

Rythu Bazars started functioning in the Andhra Pradesh State from January 20, 1999. Presently there are 95 Rythu bazaars operating in all the 23 districts of the state. There is no government involvement in price fixation. This function is left to farmers who organize themselves into committees and these committee are fixing sale prices daily after taking into consideration the wholesale and retail prices prevailing in the nearby towns. Generally, in the Rythu Bazar, prices are fixed 20 per cent over the wholesale prices and 15 to 20 per cent less than local market prices. Prices fixed are displayed at several places all over the Rythu Bazar for the benefit of the consumers. The major highlights of Rythu bazaars are:

- District collectors are making the land available for the Rythu Bazars.
- Permanent infrastructure with all support system are being constructed in the Rythu Bazars by the concerned Agricultural Produce Market Committee.
- The vegetable cultivators in the identified villages are provided the photo identity cards and only these cultivators are permitted to sell vegetables in these bazaars.
- State Government arranges special buses on most routes for transport of vegetables.
- Temporary storage facilities are on anvil.
- Coordination exists between revenue, marketing and horticulture departments for smooth functioning of these markets.
- A distinct and common identity of such markets across the state is being established.
- Other essential commodities like pulses and edible oils are also sold in these markets at reasonable prices.
- Vegetable production programme in the area is also undertaken by the horticulture department of the state to ensure regular supplies of vegetables to the consumers.

Rythu Bazars have generated a great deal of enthusiasm both among farmers and consumers as farmers get better prices for their produce due to curtailment of commission and overhead costs on account of the non-existence of middlemen and the consumers get vegetables at low prices compared to the prices in other markets.

(iv) Uzhavar Sandies

Uzhavar Sandies (Farmers' Market) were established in selected municipal and panchayat areas of the Tamil Nadu by the state government. In these markets, farmers enjoy better marketing infrastructure free of cost and also receive considerably high prices for the products than what they use to receive from middlemen at village or primary markets of towns. Farmers are additionally benefited in the form of interaction with other farmers and with departmental personnel. Farmers also get good quality seeds and other inputs in the market yard itself. The consumers in these markets are benefited by getting fresh vegetables at relatively lower prices.

(v) Shetkari Bazar

On the lines of Rythu Bazars in Andhra Pradesh and Uzhavar Sandies in Tamil Nadu, Government of Orissa has taken a programme of establishing Krushak Bazars in the state of Orissa in the year 2000-01 with the purpose to empower farmer-producer to

compete effectively in the open market to get a remunerative price for his produce and to ensure products at affordable prices to the consumers.

The government provides following incentives for opening of the Krushak Bazars in the state:

(a) Provides 1 to 2 acres of land at suitable place, free of cost, for establishing the bazaar.

(b) A cluster/group of villages within the proximity of market area and farmers growing vegetable are identified having the surplus produce for sale.

(c) The identified farmers are allowed to use marketing facilities so that there is no intervention of middlemen and farmers get better prices for their produce.

(d) Public utility facilities *viz*., drinking water, electricity, toilet, canteen and rest house are provided to farmers by the Krushak Bazars.

(e) Identified farmers are provided inputs like seeds and fertilizer at the reasonable prices in the Krushak Bazars, and

(f) Storage facilities in the market area are also provided to the farmers in Krushak Bazars.

(vii) Mother Dairy Booths

Mother Dairy, basically handling milk in Delhi, was asked to try its hand in retail vegetable marketing by direct purchasing vegetables from the farmers, moving them in specially built vehicles, storing them in air conditioned godowns and distribute them to the consumers through its retail outlets in 1989 after the notorious onion and potato price crisis. Mother Dairy management has opened retail outlets in almost all important colonies of Delhi for providing vegetables to the consumers at reasonable prices.

Market Integration, Efficiency, Costs, Margins and Price Spread

Market Integration

Meaning

Integration shows the relationship of the firms in a market. The extent of integration influences the conduct of the firms and consequently their marketing efficiency. The behaviour of a highly integrated market is different from that of a disintegrated market. Markets differ in the extent of integration and, therefore, there is a variation in their degree of efficiency.

Kohls and Uhl have defined market integration as a process which refers to the expansion of firms by consolidating additional marketing functions and activities under a single management. Examples of market integration are the establishment of

wholesaling facilities by food retailers and the setting up of another plant by a milk processor. In each case, there is a concentration of decision making in the hands of a single management.

Types of Market Integration

There are three basic kinds of market integration.

(i) Horizontal Integration

This occurs when a firm or agency gains control of other firms or agencies performing similar marketing functions at the same level in the marketing sequence. In this type of integration, some marketing agencies (say, sellers) combine to form a union with a view to reducing their effective number and the extent of actual competition in the market. In most markets, there is a large number of agencies which do not effectively compete with each other. This is indicative of some element of horizontal integration. Horizontal integration is advantageous for the members who join the group. Similarly, if farmers join hands and form co-operatives, they are able to sell their produce in bulk and reduce their cost of marketing. Horizontal integration of selling firms is generally not in the interest of the consumers of buyers.

The schematic arrangement of a horizontally integrated firm is shown in Figure 9.1. In this arrangement, there are four firms engaged in buying and selling of foodgrains under the direction of the parent agri-business firm. All the four business firms perform the same type of marketing function but their locations and areas of operations are different. Cases of such an integration are very commonly found. Frequently a firm will have a central headquarter with a large number of local branches that carry on operations at the local level. Such a network enables the organization to achieve the economies associated with size of the firm. It also helps the firm to organize some complex types of operations and services which are needed by the local units but individually, they may not be able to perform with ease and/or efficiency.

(ii) Vertical Integration

Vertical integration occurs when a firm performs more than one activity in the sequence of the marketing process. It is a linking together of two or more functions in the marketing process within a single firm or under a single ownership. For example, if a firm assumes the functions of the commission agent as well as retailing, it is vertical integration. Another example of vertical integration is a flour mill which engages in retailing activity as well.

The schematic arrangement of a vertically integrated firm is illustrated in Fig. 9.2. In this arrangement a firm is not only engaged in grain purchasing and storage of grains but also owns trucks for transporting the produce from threshing floors/villages to mandi and vice versa. In addition to trading in foodgrains the firm may also be processing the grain for making livestock feed which it sells to the livestock rearers or feed retailers.

There have been many reasons for the development of such integrated operations. This type of integration makes it possible to exercise control over both the quantity and quality of the product from the beginning of the production process until the product is ready for the consumer.

Vertical integration leads to some economies in the cost of marketing. A vertically integrated firm has an advantage over other firms in respect of greater market power either in terms of sources of supplies or distribution network. Vertical integration reduces the number of middlemen in the marketing channel. It is of two types, forward or backward, depending upon the stage at which the integration occurs.

(a) *Forward Integration*: If a firm assumes another function of marketing which is close to the consumption function, it is a case of forward integration; for example, a wholesaler assuming the function of retailing.

(b) *Backward Integration*: This involves ownership or a combination of sources of supply; for example, when a processing firm assumes the function of assembling/purchasing the produce from villages.

Firms often expand both vertically and horizontally. The modern retail stores are a good example of this. Retailing firms have grown horizontally by expanding either retail stores or a number of commodities they deal in. They have grown vertically by operating their own wholesale, purchasing and processing establishment.

(iii) Conglomeration

A combination of agencies or activities not directly related to each other may, when it operates under a unified management, be termed a conglomeration. Examples of conglomeration are Hindustan Lever Ltd. (processed vegetables and soaps), Delhi Cloth and General Mills (Cloth and Vanaspati), Birla Group, Tatas, J.K. Group and NAFED.

The schematic arrangement of a business conglomerate is shown in Figure 9.3.

The conglomerate is involved in a number of different and frequently unrelated activities. For example, the firm may be dealing in foodgrains trading; processing of horticultural products; cloth milling; selling and repairs of electronic equipments; and

manufacturer of vanaspati. Such a conglomeration of activities serves as a means of spreading the risk and helps in expanding the activities to additional markets.

Most of the business firms have some degree of vertical integration, horizontal integration and conglomerate character. The main objective of such an arrangement is to undertake closely related activities that will permit them to effectively meet the requirements of their customers. The most common type of integration which exists in our rural markets is that a firm which buys and sells the grains is also engaged in selling of fertilizers, insecticides and pesticides, feed and such other items with the main objective of meeting the multiple needs of their customers, most of whom are farmers.

Degree of Integration

There are two types of integration.

(i) Ownership Integration

This occurs when all the decisions and assets of a firm are completely assumed by another firm. The example of this type of integration is a processing firm which buys a wholesaling firm.

(ii) Contract Integration

This involves an agreement between two firms on certain decisions, while each firm retains its separate identity. When dal mills of an area jointly agree on the pricing of the dals and processed product, it is a case of contract integration. Another example of contract integration is tie up of a dal mill with pulse trades for supply of pulse grains.

Effects of Integration

Integration is an attempt at organizing or co-ordinating the marketing processes to increase operational efficiency and acquire greater power over the selling and/or buying process. Like decentralization, integration in the marketing process may have both advantageous and disadvantageous effects. Whether a particular case of integration is advantageous to society or the individual can be judged by the motive with which it has been undertaken.

The vertical integration of firms may be actuated by the following motives:

(i) More profits by taking up additional functions;

(ii) Risk reduction through improved market co-ordination;

(iii) Improvement in bargaining power and the prospects of influencing prices; and

(iv) Lowering costs through achieving operational efficiency. Horizontal

integration may be actuated by the following motives:

(i) Buying out a competitor in a time-bound way to reduce competition;
(ii) Gaining a larger share of the market and higher profits;
(iii) Attaining economies of scale; and
(iv) Specializing in the trade.

Horizontal integration in the food industry is limited because of its potential impact on competition.

Conglomeration integration may be actuated by the following motives:
(i) Risk reduction through diversification;
(ii) Acquisition of financial leverage; and
(iii) Empire-building urge.

Marketing Efficiency

Marketing efficiency is essentially degree of market performance. In this sense the concept is broad and dynamic. It encompasses many theoretical manifestations and practical aspects. Broadly, one may look at efficiency of a market structure through the following:

(i)

(i) Whether it fulfils the objectives assigned to it or expectations from the system at minimum possible cost or maximizes the fulfillment of objectives with given level of resources (or costs); and

(ii) Whether it is responsive to impulses generated through environmental changes and whether impulses are transmitted at all levels in the system. Expectations from or objectives assigned to the system are of critical importance in assessing the efficiency because various participants have different expectations from the system, which quite often conflict with each other. For example:

(i) Farmers expect quick market clearance and higher prices for their produce. They expect the market to buy the products when they are offered for sale at reasonable prices;

(ii) Consumers expect ready availability of products in the form and quality desired by them at lower prices;

(iii) Traders and other functionaries expect steady and increasing incomes; and

(iv) Government expect the system to safeguard the interest of all the three sections and in a proportion which is considered to be fair so that overall long-run welfare of the society is maximized.

Definition of Marketing Efficiency

The concept of marketing efficiency is so broad and dynamic that no single definition encompasses all of its theoretical and practical implications. Some of the definitions are given below:

Kohls and Uhl: Marketing efficiency is the ratio of market output (satisfaction) to marketing input (cost of resource). An increase in this ratio represents improved efficiency and a decrease denotes reduced efficiency. A reduction in the cost for the same level of satisfaction or an increase in the satisfaction at a given cost results in the improvement of efficiency.

Jasdanwalla: The term marketing efficiency may be broadly defined as the effectiveness or competence with which a market structure performs its designated function.

Clark: Marketing efficiency has been defined as having the following three components:

(i) The effectiveness with which a marketing service is performed;

(ii) The cost at which the service is performed; and

(iii) The effect of this cost and the method of performing the service on production and consumption.

Of the three components, the last two are the most important because the satisfaction of the consumer at the lowest possible cost must go hand in hand with the maintenance of a high volume of farm output.

Efficient Marketing

The movement of goods from producers to consumers at the lowest possible cost, consistent with the provision of the services desired by the consumer, may be termed as efficient marketing. A change that reduces the costs of accomplishing a particular function without reducing consumer satisfaction indicates an improvement in the efficiency. But a change that reduces costs but also reduces consumer satisfaction need not indicate increase in marketing efficiency. A higher level of consumer satisfaction even at a higher marketing cost may mean increased marketing efficiency if the additional satisfaction derived by the consumer outweighs the additional cost incurred on the marketing process.

An efficient marketing system for farm products ensures that:

(i) Increase in the farm production is translated into a proportionate increase in the level of real income in the economy, thereby stimulating the emergence of additional surpluses;

(ii) Good production years do not coincide with low revenues to the producers achieved through effective storage, proper regional distribution and channelising of latent demand; and

(iii) Consumers derive the greatest possible satisfaction at the least possible cost.

An efficient marketing system is an effective agent of change and an important means for raising the income levels of the farmers and the levels of satisfaction of the consumers. It can be harnessed to improve the quality of life of the masses.

Approaches to the Assessment of Marketing Efficiency

Traditionally, efficiency of the marketing system has been looked at from the following two angles:

(i) Technical or Physical or Operational Efficiency

This aspect of the efficiency pertains to the cost of performing a function. Efficiency is said to have increased when cost of performing a function for each unit of output is reduced. This can be brought about either by reducing physical losses or through change in the technology of the function viz., storage, transportation, handling, and processing. A change in the technique may result either in the reduction of per unit cost (storage cost for a month, transportation cost to a distance of 100 kms or the cost of converting 100 kg of oranges to orange juice) or the increase in the output for a given level of cost.

(ii) Pricing or Allocative Efficiency

Pricing efficiency means that the system is able to allocate farm products either overtime, across the space or among the traders, processors and consumers (at a point of time) in such a way that no other allocation would make producers and consumers better off. This is achieved via pricing of the product at different stages, at different places, at different times and among different users and hence called pricing efficiency. In simple terms, the pricing efficiency is achieved when following conditions hold:

a. Price differences between spatially separated markets do not exceed transportation cost;

b. Intra-year price rise is not more than storage cost; and

c. Price differences between forms of the product (pulse grain and split dal or wheat grain and wheat flour) do not exceed processing cost.

The pricing efficiency refers to the structural characteristics of the marketing system, where the sellers are able to get the true value of their produce and the consumers receive true worth of their money.

Whenever functions of transportation, storage and processing are performed, cost is incurred, value is added and the product is priced again. The efficiency of marketing is concerned with the extent to which the prices (after these functions are performed) deviate from what the cost of performing these functions warrant. The pricing aspect of marketing efficiency is affected by the extent of competition, dissemination of market information and attitude of the functionaries.

Marketing efficiency in this context may be termed as the pricing efficiency of the marketing system. The relationships between marketing costs and marketing margins and that between gross margins and prices in spatially separated markets between or at different stages of marketing reflect this aspect of marketing efficiency.

The above two types of efficiencies are mutually reinforcing in the long run; one without the other is not enough.

Empirical Assessment of Marketing Efficiency

Some simple measures to assess the efficiency of the marketing system for agricultural commodities are:

(i) Ratio of Output to Input

Conceptually, efficiency of any activity or process is defined as the ratio of output to input. If 'O' and 'I' are respectively output and input of the marketing system and 'E' is the index of marketing efficiency; then

$$E = \frac{O}{I} \times 100$$

A higher value of E denotes higher level of efficiency and vice versa. When applied in the area of marketing, output is the 'value added' by the marketing system and 'input is the real cost of marketing (including some fair margins of intermediaries)'. The measurement of 'value added' is not easy. The difference in the price at the farm level (price received by the farmer) and that at the retail level (price paid by the consumers) may be used to measure the 'value added' but it has limitations mainly because of market imperfections. Assuming that degree of imperfection is pervasive, this measure has been used to compare the marketing efficiency of two spatially separated markets,

of two commodities or at two points of time. Consider the following examples of marketing efficiency.

Marketing Costs, Margins and Price Spread

Market functionaries or institutions move the commodities from the producers to consumers. Every function or service involves cost. The intermediaries or middlemen make some profit to remain in the trade after meeting the cost of the function performed.

In the marketing of agricultural commodities, the difference between the price paid by consumer and the price received by the producer for an equivalent quantity of farm produce is often known as farm-retail spread or price spread. Sometimes, this is termed as marketing margin. The total margin includes:

(i) The cost involved in moving the product from the point of production to the point of consumption, i.e., the cost of performing the various marketing functions and of operating various agencies; and

(ii) Profits of the various market functionaries involved in moving the produce from the initial point of production till it reaches the ultimate consumer. The absolute value of the marketing margin varies from channel to channel, market to market and time to time.

Concepts of Marketing Margins

There are two concepts of marketing margins.

(i) Concurrent Margins

These refers to the difference between the prices prevailing at successive stages of marketing at a given point of time. For example, the difference between the farmer's selling price and retail price on a specific date is the total concurrent margin. Concurrent margins do not take into account the time that elapses between the purchase and sale of the produce.

(i) Lagged Margins

A lagged margin is the difference between the price received by a seller at a particular stage of marketing and the price paid by him at the preceding stage of marketing during an earlier period. The length of time between the two points denotes the period for which the seller has held the product. The lagged margin concept is a better concept because it takes into account the time that elapse between the purchase and sale by a party and between the sale by the farmer and the purchase by the consumer.

The method of calculating lagged margins is based on the same principle as that involved in the first in-first out method of accounting. However, it is difficult to obtain data on time lags between purchase and sale with a view to maintaining continuous series of marketing margins.

Importance of Study of Marketing Margins and Costs

Studies on marketing margins and costs are important, for they reveal many facets of marketing and the price structure, as well as the efficiency of the system.

(i) The magnitude of the marketing margins relative to the price of the product indicates the efficiency or otherwise of the marketing system. It refers to the efficiency of the intermediaries between the producer and the consumer in respect of the services rendered and the remuneration received by them. While comparing the efficiency of the marketing system by means of marketing margins over space or time, the difference in the value added to the product through various services/functions is taken into account;

(ii) Such studies help in estimating the total cost incurred on the marketing process in relation to the price received by the producer and the price paid by the consumer. The cost incurred by each agency in different channels and the share of each agency in the cost have been revealed. This knowledge ultimately helps us to identify the reasons for high marketing costs and the possible ways of reducing them; and

(iii) The knowledge of marketing margins helps us to formulate and implement appropriate price and marketing policies. Excessive margins point to the need for public intervention in the marketing system.

Estimation of Marketing Margins and Costs

Regular monitoring of marketing margins at regional levels are essential for the formulation and successful implementation of marketing and price policies. A study of marketing margins should include an estimation of the producers' share in the consumer's rupee, the cost of marketing functions and the margins of intermediaries. Marketing margins and costs vary from commodity to commodity, and depend on the amount of processing involved and the market structure for handling of the commodity. Even for the same commodity, the margin may vary from place to place and time to time. A number of factors, such as the method of assembling, the location of the market and the mode of transportation, influence marketing costs and margins. The method of sale, weighment and other facilities, too, affect the marketing costs. Because of a lack of standard grading in agricultural commodities, it is very difficult to make valid

comparisons of price data. Adequate precautions have, therefore, to be taken when comparing marketing margins for commodities under different situations.

Inspite of these difficulties, various studies have been conducted in India to study marketing margins and costs with a view to assessing the farmers' share in the consumer's rupee and to suggesting measures for improvements in the marketing system. These studies have used different approaches, and vary considerably in their depth.

Three methods are generally used in the computation of marketing margins and costs.

(i) Lot Method

A specific lot or consignment is selected and chased through the marketing system until it reaches the ultimate consumer. The cost and margin involved at each stage are assessed. The difficulties or limitations of this method are:

(a) It is difficult to chase the movement of a lot from the producer to the ultimate consumer.

(b) Most of the lots lose their identity during the process of marketing, because either the product gets processed or the lot gets mixed up with other lots.

(c) There is no assurance that the lot selected is representative of the whole product.

This method is appropriate for such perishable farm commodities as fruits, vegetables, and milk, because the lag between the time the commodity enters the marketing system and time of its final consumption is very small.

(ii) Sum of Average Gross Margins Method

The average gross margin at each successive level of marketing is worked out by dividing the difference of the money value of sales and purchase by the number of units of the commodity transacted by a particular agency. The average gross margins of all the intermediaries are added to obtain the total marketing margin as well as the break-up of the consumer's rupee.

The following formula may be used to work out the total marketing margins:

$$M_T = \sum_{i=1}^{n} \frac{S_i - P_i}{Q_i}$$

where

M_T = Total marketing margin

S_i = Sale value of a product for i^{th} firm

P_i = Purchase value of a product paid by the i^{th} firm

Q_i = Quantity of the product handled by i^{th} firm

i = 1, 2, ……n, (number of firms involved in the marketing channel)

This method requires considerable effort in the location and examination of the records kept by the intermediaries. The main difficulties in using this method are:

(a) Traders may not allow access to their account books. It would then be difficult to obtain complete and accurate information. Moreover, some traders often make manipulated entries in their account books to evade sales tax and income tax; and

(b) This method necessitates adjustment for the difference between the quantities purchased and sole because a part of the product is wasted during handling.

(iii) Comparison of Prices at Successive Levels of Marketing

Under this method, prices at successive stages of marketing at the producer's, wholesaler's and retailer's levels – are compared. The difference is taken as the gross margin. The margin of an intermediary is worked out by deducting the ascertainable costs from the gross margin earned by that intermediary. This method is appropriate when the objective is to study the movements of marketing costs and margins in relation to prices and cost indices. The main difficulties encountered in the use of this method are:

(a) Representative and comparable series of prices for the same quality of successive stages of marketing are not readily available for all the products;

(b) Adjustment for a loss in the quality of the product at various stages of marketing due to wastage and spoilage in processing and handling is difficult;

(c) The price quotation may not cover the price of a product of a comparable quality; and

(d) The time lag between the performance of various marketing operations is not properly accounted for.

The following general rules may be adopted in selection of the method for calculating marketing margins and costs of various agricultural commodities:

	Commodities	Method Recommended
(a)	For perishable farm products like fruits, vegetables and milk, where the time lag between the commodity entering the marketing system and the time of final	Chasing of lot or consignment method.

consumption is very small.

(b)	Commodities which require processing before sale to consumers such as paddy, oil-seeds, etc.	Concurrent margins should be calculated by finding the differences in the prices prevailing on the same date at successive levels of marketing.
(c)	Commodities not requiring processing before sale to consumers, such as wheat, maize, bajra, jowar, etc.	By comparing the prices prevailing at successive levels of marketing on the same date either for the same market or for a pair of markets.

Irrespective of the method followed, the following information is required for computing marketing costs and margins:

(a) Data on prices of the same variety and quality of the commodity at different stages of marketing, either for one market or for a pair of markets;

(b) Data on marketing charges in cash or kind;

(c) Cost of transportation of the produce at different levels of marketing;

(d) Cost of processing and estimates of the conversion factor from the raw material to finished products;

(e) Cost of all other operations in the marketing process.

Various measures of the price spread and for the computation of marketing costs and margins, and the procedures followed have been given in the paragraphs that follow.

Producer's Price

This is the net price received by the farmer at the time of first sale. This is equal to the wholesale price at the primary assembling centre, nminus the charges borne by the farmer in selling his produce. If P_A is the wholesale price in the primary assembling market and C_F is the marketing cost incurred by the farmer, the producer's price (P_F) may be worked out as follows:

$$P_F=P_A-C_F$$

Producer's Share in the Consumer's Rupee

It is the price received by the farmer expressed as a percentage of the retail price (i.e., the price paid by the consumer). If P_r is the retial price, the producer's share in the consumer's rupee (P_s) may be expressed as follows:

$$P_S = (P_F \div P_r)\ 100$$

Marketing Margin of a Middleman

This is the difference between the total payments (cost + purchase price) and receipts (sale price) of the middleman (i^{th} agency). Three alternative measures may be used.

(a) Absolute margin of i^{th} middleman (A_{mi})

$$A_{mi} = P_{Ri} - (P_{Pi} + C_{mi})$$

(b) Percentage margin of i^{th} middleman (P_{mi})

$$P_{mi} = \frac{P_{Ri} - (P_{Pi} + C_{mi})}{P_{Ri}} \times 100$$

(c) Percentage mark-up of the i^{th} middleman (M_i)

$$M_i = \frac{P_{Ri} - (P_{Pi} + C_{mi})}{P_{Ri}} \times 100$$

where

P_{Ri} = Total value of receipts per unit (sale price)

P_{pi} = Purchase value of goods per unit (purchase price)

C_{mi} = Cost incurred on marketing per unit

The margin thus calculated include the profit of the middleman and the returns which accrue to him for storage, the interest on capital and overhead, and establishment expenditure.

Total Cost of Marketing

The total cost, incurred on marketing either in cash or in kind by the producer seller and by the various intermediaries involved in the sale and purchase of the commodity till the commodity reaches the ultimate consumer, may be computed as follows:

$$C = C_F + C_{mi} + C_{m2} + C_{m3} + \ldots + C_{mn}$$

where

C = Total cost of marketing of the commodity,

C_F = Cost paid by the producer from the time the produce leaves the farm till he sells it, and

C_{mi} = Cost incurred by the i^{th} middleman in the process of buying and selling the product.

Some of the costs are linked with the quantity marketed and some are linked with the value of the commodity. The former is a fixed charge, while latter is a variable one. The actual rates of charges are converted in terms of the weight unit or Rs.100 worth of

produce sold. The *ad valorem* charges are calculated on the basis of the actual market price for the physical unit or Rs.100 worth of produce sold.

Farmer's Share and Gross Marketing Margins

According to Acharya (2003), the gross marketing margins (GMM) can be broken down into three components viz., cost of performing various marketing functions, statutory taxes or levies payable in the marketing channel, and net marketing margins (NMM) retained by market functionaries.

Marketing cost varies from commodity to commodity and changes overtime and space. Marketing costs depend on the perishability of the commodity, need for cold storage facilities, need for processing before consumption, necessity of storage and transportation, distance for transportation and nature of packaging needed. The marketing costs are, therefore, generally high for fruits, vegetables, flowers, oilseeds, sugarcane and cotton compared to foodgrains. Statutory marketing charges include taxes and levies (sales tax, market fee, octroi, special duty or cess on commercial crops etc.) which are paid in the process of transactions of commodity at different stages of marketing. The rates of these charges vary from state to state, market to market and commodity to commodity. Most of these taxes and levies are on *ad valorem* basis and as such their incidence is higher on high value crops. The market players have no control on these taxes and levies as these are of statutory in nature. These statutory charges exert considerable effect on gross marketing margins and farmer's share in consumer's rupee. Net marketing margin (NMM) is the amount retained by different market functionaries. The size of net marketing margin depends on the nature of competition, structure of markets and scale of business. Larger the net marketing margin, greater is the inefficiency of the marketing system.

It is now increasingly realized that higher marketing costs do not always reflect inefficiency of the marketing system. The factors, which cause high marketing costs, could be geographical localization of production away from the markets, necessity of storage from production season to the lean season and involvement of processing function in the marketing process. Under such situations, the size of marketing costs reflects only one side of the coin and the other aspects viz., consumer satisfaction is not given any weightage.

Over the period, gross marketing margins (GMM) decreased in foodgrains and oilseed crops due to better competitive conditions in the trade of these commodities. On the other hand, GMM increased in fruits and vegetables due to the expansion in the

markets for these crops and their products. As against this, over the period, however, total cost of marketing in absolute terms have shown an increase due to:

(i) increased necessity of packing all goods;

(ii) increased availability of facilities of transportation, communication and storage leading to long distance transportation and storage from production to lean season of the year;

(iii) widening of markets due to liberalization of trade and expansion in size of markets leading to movement of products to distant domestic and foreign markets;

(iv) increase in the consumer's income leading thereby to higher demand of processed, packed and branded products;

(v) increase in the general price level in the economy thereby leading to increase in the cost of marketing as many marketing charges are linked to the value of the commodity; and

(vi) increase in the statutory marketing charges overtime by the government, which in some cases account for 12 to 18 per cent of the gross marketing margins.

A comprehensive review of Indian Literature reveals that studies on price-spread and marketing margins for the period 1960 to 1975 are available for only a few crops (wheat, rice, sorghum, pearl millet, chickpea and groundnut). However, in the later period i.e., 1975-2000 the studies have covered almost all agricultural products – foodgrains, oilseeds, cotton, fruits, vegetables and flowers. (For a summary of results see Acharya, 2003).

There is ample evidence of large variability of the producers share in consumer rupee as well as marketing margins and costs across the crops and study areas. Disregarding the extremities, the farmers share in consumers rupee has been estimated as 56 to 89 per cent for paddy, 77 to 85 per cent for wheat, 72 to 86 per cent for coarse grains, 79 to 86 per cent for pulses and 40 to 85 per cent for oilseeds. The farmer's share in consumer's rupee for perishable farm products (fruits, vegetables and flowers) is generally lower and varied from 32 to 68 per cent.

The studies in general reveal that the producer's share in consumer's rupee has varied with the marketing channel adopted by the farmers. The DMI studies reveal (Table 3.2) that the costs were higher when farmers adopted private channels in marketing of surplus produce compared to the institutional channels and hence farmer's share was lower when they sell through private channels.

Table 3.2

Price Spread in Private and Institutional Channels in Selected Agricultural Commodities in India (1982-83)

(Percentages of Consumer's Price)

Commodities	Marketing Channel	Farmer's Share	Marketing Costs	Net Marketing Margins
Price	Private	65.0	17.0	17.3
	Institutional	66.0	27.0	7.0
Wheat	Private	65.8	20.0	14.2
	Institutional	66.8	27.5	5.7
Apple	Private	41.9	35.0	23.1
	Institutional	52.2	26.2	21.6
Onion	Private	40.6	35.7	23.7
	Institutional	42.2	36.1	21.7
Groundnut	Private	63.6	19.0	17.4
	Institutional	87.6	11.2	1.2

Source: Directorate of Marketing and Inspection, Government of India, Faridabad (1985).

A recent comprehensive analysis of statutory charges/taxes and transport and storage costs of wheat by Ramesh Chand has shown that the mark up over farm harvest price prevailing during post-harvest season in a surplus state (like Punjab) needed to attract private sector in wheat trade is 74 per cent to 126 per cent (Goa) for the month of next March. This implies that for wheat supplied to a consumer in Goa in the month of next March, the share of a Punjab wheat grower (based on the price received in the preceding harvest month of May) in the consumer's price is 44.2 per cent. This also means that the statutory charges and marketing costs (storing wheat from May to next March and transportation from Punjab to Goa included) add up to 55.8 per cent of the consumer's price.

Sale of fruits through pre-harvest contractors is also common in fruit producing areas. The studies on estimates of marketing costs and margins reveal that farmers receive a lower price when they sell through the contractor.

The gross marketing margins in marketing of agricultural products have also been worked out from National Accounts Statistics by Acharya, S.S. (1998). In this approach, difference between the total consumers expenditure on a particular farm

product and the value of the output at the farm level has been used to estimate gross marketing margin. Based on an aggregate accounting, the gross marketing margin (GMM) as percentage of consumer's price is 19.2 in cereals, 7.2 in oilseeds, 32.9 in fruits and vegetables, 6.7 in milk and milk products, and 37.2 in sugarcane with an overall average of 19.3 per cent for all agricultural commodities. The estimates are shown in Table 3.3.

Table 3.3

Gross Marketing Margins for Major Agricultural Commodities in India Using Aggregate Accounting Approach Based on data for 1986-87

(Percentages)

Crop Groups/Crops	Gross Marketing Margin
Cereals	19.2
Oilseeds	7.2
Fruits & Vegetables	32.9
Milk and Milk Products	6.7
Sugarcane/Sugar/Gur	37.2
Overall	19.3

Source: Acharya, S.S., AgriculturalMarketing in India: Some Facts and Emerging Issues, Indian Journal of Agricultural Economics, 53(3), July-September 1998, pp.311-32.

Factors Affecting the Cost of Marketing

Studies on the cost of marketing reveal that there is a large variation in the cost per quintal or per Rs.100 worth of the produce. The factors which affect marketing costs are:

(i) Perishability of the Product: The cost of marketing is directly related to the degree of perishability. The higher the perishability, the greater the cost of marketing, and vice versa.

(ii) Extent of Loss in storage and Transportation: If the loss in the quality and quantity of produce, arising out of wastage or spoilage or shrinkage during the period of storage or in the course of transportation is substantial, the marketing cost will go up.

(iii) Volume of the Product Handled: The larger the volume of business or turnover of a product, the less will be the per unit cost of marketing.

(iv) Regularity in the Supply of the Product: If the supply of the product is regular throughout the year, the cost of marketing on per unit basis will be less than in a situation of irregular supply or supply restricted to a few months of the year.

(v) Extent of Packaging: The cost of marketing is higher for the commodities requiring packaging.

(vi) Extent of Adoption of Grading: The cost of marketing of ungraded product is higher than that of the products in which grading can be easily adopted.

(vii) Necessity of Demand Creation: If substantial advertisement is needed to create the demand of prospective buyers, the total cost of marketing will be high.

(viii) Bulkiness of the Product: The marketing cost of bulky products is higher than that of which are not bulky.

(ix) Need for Retailing: The greater the need for the retailing of a product, the higher the total cost of marketing;

(x) Necessity of Storage: The cost of the storage of a product adds to the cost of marketing, whereas the commodities which are produced and sold immediately without any storage attract lower marketing cost.

(xi) Extent of Risk: The greater the risk involved in the business for a product (due to either the failure of the business, price fluctuations, monopsony of the buyer or the prevalence of unfair practices), the higher is the cost of marketing.

(xii) Facilities Extended by the Dealers to the Consumers: The greater the facilities extended by the dealer to the consumer (such as return facility for the product, home delivery facility, the facility of supply of goods on credit, the facility of offspring entertainment to buyers, etc.), the higher the cost of marketing.

Reasons for Higher Marketing Costs of Agricultural Commodities

Generally, the cost of marketing of agricultural commodities is higher than that of manufactured products. The factors responsible for this phenomenon are:

(i) Widely Dispersed Farms and Small Output per Farm: There are innumerable producers of agricultural products, each producing a small quantity. Producers are widely dispersed. Hence the cost of assembling is high.

(ii) Bulkiness of Agricultural Products: Most farm products are bulky in relation to their value. This results in a higher cost of transportation.

(iii) Difficult Grading: Grading is relatively difficult for agricultural products. Each lot has to be personally inspected during purchase and sale – a fact which increases

marketing costs. The sale or purchase by contract or sample is not easy because an inspection of each lot of the product is required by reason of variation in their quality.

(iv) Irregular Supply: Agricultural products are characterized by seasonal production. Their market supply, therefore, fluctuates during the year. In times of glut, prices go down and the cost of marketing functions, on value basis.

(v) Need for Storage and Processing: There is a greater need for the storage of agricultural products because of the seasonality of their production. The processing of agricultural products is a necessity because all the agricultural products are not consumed in the raw form. Storage and processing add to the cost of marketing. Losses of agricultural products in storage are also high because of their perishability.

(vi) Large Number of Middlemen: In foodgrain marketing, the number of middlemen is larger because there is no restriction on their entry in the trade. Contrarily, there are mainly restrictions on the entry into the trade of industrial products. For example, the cumbersome licensing procedure, high risk and high capital requirement make entry into trade in non-farm goods somewhat difficult. The larger the number of middlemen, the higher the marketing costs.

(vii) Risk involved: The risk of price fluctuations is higher in agricultural products. The higher risk leads to higher risk premium, which adds to the marketing cost.

Marketing Cost in India and Other Countries

In India, the marketing cost of foodgrains is lower than in developed countries. The factors responsible for this difference are:

(i) Foodgrains are sold in a relatively unprocessed form in India, whereas in developed countries, consumers want them mostly, in a processed form. India, the processing of foodgrains is undertaken at the consumers' level. Therefore, the cost of marketing is lower, and the farmers' share in consumer's rupee is higher in India.

(ii) Human labour is relatively cheap in India, a fact which keeps the labour component of the marketing cost lower in India than in the developed countries.

Marketing Costs of Foodgrains Over Time

Over time, there has been an increase in the marketing cost of foodgrains in India. Some of the factors which have been responsible for this increase are:

(i) Shifting Tendency from Subsistence to Commercialised Farming: Previously, each farmer used to produce foodgrains needed by him; but now, because of specialization in agricultural production and increasing urbanization, the distance

between producers and consumers has increased. The cost of moving foodgrains from producers to consumers has, therefore, increased.

(ii) **Technological Advances in Preservation and Storage:** Formerly, many food products were consumed only during the season of production. Specialization in production and the evolution of short duration high-yielding varieties have resulted in large-scale production, thereby necessitating their storage. Technological advances in storage and preservation, though have facilitated handling of large volumes but have increased the costs and widened the spread between the producers' and the consumer's prices.

(iii) **Change in the Form of Consumer Demand:** There has been a change in the consumer's behaviour over time. Consumers now like the product in a processed and ready-to-use form following the increasing impact of urbanization. The desire for attractive packaging and home delivery system, too, has had its influence on consumer demand. Their demand for marketing service has, therefore, increased.

How to Reduce Marketing Costs

There are various ways of reducing marketing costs. No single factor can bring about any perceptible reduction in these costs. However, a combination of factors may bring about a significant reduction in the cost of marketing. Some ways of reducing marketing costs for farm products are:

(i) Increase the Efficiency of Marketing

An increase in the efficiency of marketing can be brought about by a wide range of activities between producers and consumers. Some major areas in which improved efficiency may result in a reduction in marketing costs are:

(a) Increasing the Volume of Business: By increasing the quantity to be handled at a time, one can effectively reduce marketing costs and increase marketing efficiency.

(b) Improved Handling Methods: The new methods of handling, such as pre-packaging of perishable products, the use of fast transportation means, the development of cold storages and an efficient use of labour are some of the methods by which efficiency may be increased and costs reduced.

(c) Managerial Control: The adoption of proven management techniques increases efficiency. By a constant monitoring of costs and returns, the efficiency at each stage in marketing may be stepped up.

(d) Change in Marketing Practices and Technology: Changes in marketing practices and technology (such as sale of orange juice instead of orange, retailing food services through super markets, and integration of marketing functions) reduce marketing costs and increase marketing efficiency.

(ii) Reduce Profits in Marketing

Profits in the marketing of agricultural commodities are often the largest because of the inherent risk at various stages of marketing. The risk may be reduced by:

(a) The adoption of hedging operations, improvements in market news service, grading and standardization; and

(b) Increasing the competition in the marketing of farm products.

A decline in marketing margins and costs generally benefits both the producer and the consumer. Only in extreme cases are all the benefits derived either by the producers or by the consumers (when there is no change in the price received by the producers). Apart from such cases, the gains in the efficiency of marketing practices are shared by both. The extent to which these benefits are shared is determined by the nature or characteristics of the supply of, and demand for, the product. For example:

(a) If the supply and demand curves have the same elasticity, producers and consumers share the benefits equally;

(b) If demand is more elastic than supply (e.g., for farm products in the short run), the producers get a larger share of the benefits; and

(c) If the supply is more elastic than the demand (e.g., of many farm products over a longer period), consumers get a larger share of the benefits.

Relationship of Farmer's Price, Marketing Costs and Consumer's Price

The farmer receives what the consumer pays after the various costs of marketing have been deducted. This residual, expressed as a percentage of the price paid by the consumer (retail price), is the farmer's share. The farmer's share may be calculated as follows:

$$FS = \frac{(RP - MC)100}{RP} \text{ OR } \quad FS = \frac{RF}{PF} \times 100$$

where

FS = Farmer's share in the consumer price expressed as a

percentage RP = Retail price of foodgrains

MC = Marketing costs, including margins

PF = Price received by the farmer

The farmer's share in the amount of the consumer's outlay at the retail level is not static and undergoes change with the change in market conditions. An increase in the share is taken as an evidence of increase in the efficiency of the marketing system in favour of the farmer, while a decrease in the farmer's share is taken as evidence of the fact that middlemen retain a larger share. The effect of change in marketing charges or costs on the farmer's share are shown in Fig. 9.4.

In period t_3 (compared to period t_2), the farmer's share in the consumer's rupee has increased because of the reduction in marketing costs and margins. It is evident that all the factors which bring about changes in marketing costs affect the farmer's share as well.

Several items of the marketing costs are almost sticky, i.e., they do not move up and down with the movement in prices. The basic reason for sticky marketing costs is that many of the items in them are related to the physical volume handled rather than to the value of the product. For example, transport cost, labour cost, weighing cost, storage cost and octroi are charged on the basis of weight.

With any given level of sticky marketing margin or cost, the farmer's share (price received) moves directly with the retail price; that is, if the retail price increases, the farmer's share also increases. But the proportionate change in the farmer's share is more than the proportionate change in the retail price. To illustrate: let the retail price, the marketing costs/margin and the farmer's price be Rs.100, Rs.50 and Rs.50 per unit respectively in period t_1. Suppose, in period t_2, the retail price decreases to Rs.90 per unit, i.e., a fall of 10 per cent. If the absolute gross marketing margin remains the same, i.e., Rs.50 per unit, the farmer's price falls to Rs.40 per unit, i.e., a fall of 20 per cent. In other words, 10 per cent fall in the retail price results in a 20 per cent fall in the farmer's price. This has been shown in Table 3.4.

Table 3.4

Effect of Change in Retail Price on Farmer's Share

Particulars	Period		Absolute change (Rs.)	Percentage change
	t_1 (Rs.)	t_2 (Rs.)		
Retail price	100	90	10	10
Marketing margin (gross)	50	50	-	-

Farmer's price	50	40	10	20

Another point that emerges from Table 9.11 is that, in period t_1, the price received by the farmer was 50 per cent of the price paid by the consumer but that in period t_2, the farmer received only 44.4 per cent of the price paid by the consumer. To the extent that marketing margins or costs are sticky, the farmers lose more when the retail price decreases.

Model Quiz

1. A flour mill opening its retail outlet is an example for

a. Horizontal integration b. Forward integration c. Conglomeration d. Backward integration Ans: b

2. Pepsico company engaging in tomato procurement directly from farmers is

a. Horizontal integration b. Vertical integration c. Conglomeration d. Forward integration Ans: b

3. Calculating marketing margin and cost in fresh fruits marketing is meaningful when one follows

a . Lot method b. Sum of average gross margins method c. Comparison of prices at successive levels of marketing d. Both b and c Ans:a

4. Farmers' share in consumer rupee will be the least in marketing of

a. Rice b. Milk c. Cotton d.Gram Ans: c

5. Price spread will be the least in marketing of

a. Rice b. Milk c. Green leaves d. Coconut Ans: c

TRUE or FALSE

1. Vertical integration enhances specialisation in a particular trade. (False)
2. Enterprise diversification is an act of conglomeration. (True)
3. Pricing efficiency is beneficial to both traders and consumers. (True)
4. Marketing efficiency is enhanced by increasing both operational efficiency and allocative efficiency. (True)
5. Margin earned by intermediaries is not included in price spread. (False)
6. Marketing cost incurred by intermediaries forms part of price spread. (True)
7. Concurrent marketing margin method does not take into account the time that elapses between the purchase and sale of produce. (True)
8. Lagged margin method considers the price difference between traders in the same stage of marketing. (False)

CHAPTER 4
EXTERNAL TRADE IN AGRICULTURAL PRODUCTS

One other important aspect of agricultural marketing is the marketing of agricultural commodities across the nation's borders usually termed as external trade. As far as an individual country is concerned, external trade is done in the form of either exports or imports. Exports provide the market support for the country's surpluses and generate foreign exchange earnings which increases the country's capacity to import other goods, but at the same time in the short run, they reduce the domestic availability of the commodities exported and consequently raise the domestic price level. Imports, on the other hand, though reduce the foreign exchange reserves, augment the domestic availability of goods and if these pertain to the capital goods or inputs, expand or improve the production capacity but in the short run, they depress the domestic prices. The effect of exports and imports of final goods on the domestic price level is such that, in the absence of any public intervention in the domestic market, the producers gain by exports and lose by imports. One other point to be noted in this regard is that the levels of exports and imports of a country are inter-related as the capacity of imports depends on its ability to export.

International trade or marketing essentially involves buyers and sellers of two different countries. Usually the currencies are different and convertibility is quite often not automatic. This apart, depending on the development philosophy, domestic economic levels; natural resource endowments and national objectives like self-sufficiency or self-reliance, there are quite a few barriers-physical, tariff, subsidies etc. that are imposed by the national governments. Therefore, the buying and selling of commodities across national boundaries usually have not been taking place in the framework of free market environment.

Trade Policy for Agriculture

Over the last five decades of Indian planning, the perception about the importance of external sector in economic development has gone through a number of changes. These changes can be categorized as under:

(i) During the first half of 1950s, i.e., the period of first five year plan, the foreign trade was considered to be almost irrelevant for economic development in India and hence export policies did not receive emphasis.

(ii) During mid 1950s and 1970s (1955 to 1975), the foreign trade was seen as a constraint on growth and India followed a moderately outward looking economic policy. During second five year plan (1956-61), agricultural items hardly received any export incentives. Rather several items were under export restrictions. The third five year plan (1961-66) marked a radical

departure in the export policy. Various export promotion measures were introduced in the form of fiscal incentives, import entitlement scheme, direct financial incentives and marketing incentives from the government. Following the devaluation of Indian rupee in 1966, many of the export promotion measures were abolished. The promotion of India's exports continued during the fourth five year plan period (1969-74). To facilitate agricultural exports, the fourth plan extended the compulsory quality control and grading under Agmark. This period was also marked by the establishment of organizations aimed at providing services to the exporting community. These include Export Promotion Councils, Commodity Boards, and the Trade Development Authority, which were set up in early 1970's.

(iii) During late 1970's to early 1980's, the external trade got more prominent place. In 1977, a Task Force on Agricultural Exports, headed by G.V.K. Rao, in its report submitted to the Government of India, criticized the adhocism applied to agricultural trade. The report pointed out that India did not have an independent export policy for agricultural commodities and agricultural export policy during the 1970's remained 'adhoc, short term and mere reaction to the situation'. The report suggested that long term policies should be formulated and frequent changes in export policies should be avoided. Another committee was appointed by Government of India under the Chairmanship of P.E.Alexander in 1977 to review the export-import policies and procedures. The Committee in its report submitted in 1978, recognized that the export control measures for agricultural commodities have resulted in supply uncertainties and loss of market share. The Committee recommended for the stability of export policies, advocated more transparency in making these policies, replacement of licensing system by the tariff system, rationalization of export incentives, elimination of multiplicity of incentives, and strengthening of institutional infrastructure for export promotion. Another Committee on trade policies under the chairmanship of Abid Hussain was appointed by the Government of India in 1984 to review the trade policies and suggest rationalization and improvements in these policies. The Committee realized that incentive element in these policies was small and was not sufficient to offset the negative export bias implicit in other domestic policies. The report proposed rationalization of duty drawback schemes, tax concessions, and increased fiscal concessions to increase the relative profitability of exports.

(iv) Mid 1980's to early 1990's marks the period when India started liberalization of the external sector. It began in mid 1980s but gathered pace only since 1991. However, upto mid 1990s, agriculture remained largely a protected sector in the Indian economy. During this period, the main policy objectives were to ensure stability of domestic prices of agricultural items. The government actively regulated agricultural exports through a variety of measures like

export taxes, export ceilings, canalization and export prohibitions. Monitoring of agricultural exports was done on adhoc and short term basis to keep the domestic supply of agricultural goods stable.

(v) In July 1991, India introduced radical policy reforms in various economic sectors including trade. These include devaluation of rupee in 1991 and making rupee partially convertible. Trade restrictions on agricultural products were left mostly untouched in the 1991 reforms but during subsequent trade policy changes, restrictions on agricultural products were gradually lifted. India signed the Uruguay Round Agreement on 15th April 1994 at Marrakesh. The treaty introduced agricultural trade in the multilateral agreement for the first time. The aim of this treaty was to eliminate physical controls on agricultural trade by replacing them with bound tariff rates. The Agreement on Agriculture came into effect from January 1, 1995 which marked the beginning of a new era of agricultural trade policy in India.

The macro-economic reforms recently introduced in India aim at liberalization of trade and industry and at progressively moving towards linking the Indian economy with the world economy. As the reform package is extended to the farm sector also, it is expected that various forms of the so-called subsidies presently available to the agricultural sector will be phased out. The export of agricultural commodities as also agro-based processed products is being encouraged and controls/restrictions on trade in agricultural commodities have been increasingly relaxed. The physical controls on import/export of agricultural commodities have been replaced by tariffication, which are also being progressively reduced.

Apart from the macro-economic reforms, the end of the cold war, the disintegration of the erstwhile Soviet Union – one of India's major trading partners accounting for about 16 per cent of total Indian export basket and a source for about 8 per cent of India's imports – and the new international trade agreement under WTO have important implications for the agricultural sector. As the public intervention in agricultural marketing is being reduced and international trade is being liberalized, it is necessary to have a look at the current status of import and export of agricultural commodities, the world trade in these commodities and prospects for India in this regard.

Share of Agricultural Products in Total Imports/Exports of India

In 1960-61, exports of agricultural and allied products (AAP) were valued at Rs.284 crores which accounted for 44.2 per cent of total value of exports. Over the years, though the exports of AAP (in value term) increased but as the exports of other commodities increased at a rate faster than that of AAP, the share of AAP in the total exports of the country has gone down. In 1990-91, exports were valued at Rs.6317 crores but they represented only 19.4 per cent of

total exports (Table 4.1). After 1990-91, the exports of AAP from India in value terms increased at a faster rate. In 1995-96, exports of AAP were valued at Rs.21,138 crores. During this period the exports of other commodities also increased at a rapid rate. Even then, the share of AAP in total exports from India at about 20 per cent, was higher than that during the preceding five years.

In 2001-02, exports of AAP were valued at Rs.29,312 crores. During 1995-96 to 2001-02, the exports of other commodities increased at a rapid rate than the exports of AAP and as such the share of AAP in total exports from India came down further to only 14 per cent. The share of agricultural and allied products export in India's total exports during the last four decades (1960-61 to 2001-02) has, however, been declining continuously. It came down from 44 per cent in 1960-61 to 14 per cent in 2001-02.

As regards the imports, the country during 1960-61 imported food articles (cereals and fats) valued at Rs.186 crores representing 16.6 per cent of total imports. The imports of food articles increased to Rs.89 crores during 1980-81, but their share in total imports

Table 4.1

Trend and Shares of Food and Agricultural Products in Imports and Exports of India

(Rs. in crores)

Year	Imports			Exports		
	Total Imports*	Food articles*	Share of food articles in total imports (%)	Total Exports	Agricul-tural and allied products	Share of agricultural & allied products in total Exports (%)
1960-61	1122	186	16.6	642	284	44.20
1970-71	1634	252	15.4	1535	487	31.72
1980-81	12549	809	6.4	6711	2057	30.65
1985-86	19658	880	4.5	10895	3018	27.70
1990-91	43193	508	2.2	32553	6317	19.41
1995-96	122678	2340	1.9	106353	21138	19.88
1998-99	178332	8799	4.93	139752	26104	18.68

1999-00	215236	9007	4.18	159561	25016	15.68
2000-01	230873	6183	2.68	203571	28582	14.04
2001-02	245199	562	0.02	209018	29312	14.02

* Includes only cereals, cereal preparations and animal and vegetable oils and fats.
Source: Government of India, Indian Economic Survey, 1996-97, Ministry of Finance, New Delhi.

declined to 6.4 per cent. In 1985-86 the imports of food articles increased to Rs.880 crores but their share in total imports further declined to 4.5 per cent of total imports. In the subsequent years, the imports of food articles declined both in absolute terms as well as in terms of its share in total imports. It came down to Rs.508 crores or 2.2 per cent of total imports in 1990-91. The imports of food articles increased since then to Rs.2340 crores in 1995-96 and to Rs.9007 crores in 1999-2000. The share of imports of food articles in total imports has shown a mixed trend, i.e., first reduced to 1.9 per cent in 1995-96 and increased to 4.2 per cent in 1999-2000 and again shown a declining trend both in absolute as well as in the per cent share thereafter. Though in absolute terms, India's imports of food articles have been increasing over the decades from mere 186 crores in 1960-61 to over 9000 crores in 1999-2000 but their share in total imports of the country has decreased from 16.6 per cent to 2.6 per cent during this period.

Changes in India's Agricultural Export Basket

A number of agricultural commodities are exported from India. The commodities exported from India fall broadly in three categories:

(i) Traditional export items – These products are cashew nuts/shelled; castor oil; coffee; raw cotton, cotton waste; fruits, spices, sugar and molasses; tea and tobacco-unmanufactured.

(ii) Non-Traditional items but uncertain – These items are raw jute; raw wool; gums, resins and lac, essential vegetable oils; and non-essential vegetable oils (excluding castor oil).

(iii) Non-Traditional items with good prospects – These items are floriculture products; HPS groundnut; oil meals; meat and meat preparations; processed fruits and juices, processed vegetables; sesame and niger seeds; shellac; wheat and rice.

The growth in the export of non-traditional new items has been at a rate higher than that of traditional items (Table 4.2). Tea, coffee, tobacco, cashew kernels and spices are the traditional export items. During 1990-91, they together accounted for 36.1 per cent of the total AAP exports but their share decreased to 23.10 per cent in 2001-02. As against this, the exports of non-traditional items like marine products, basmati rice, fruits, vegetables, oil meals and processed foods have been increasing in the export basket of the country. Among the non-traditional items, the increase has been conspicuous in rice and fish and fish preparations. Rice

accounted for 7.3 per cent of total exports of AAP in 1990-91 which further increased to 10.8 per cent in 2001-02. Similarly the share of fish and fish preparations increased from 15 to 20 per cent during this period. The relative importance of various commodities in total agricultural and allied products exports has substantially changed during the last four decades.

Table 4.2

Exports of Agricultural and Allied Products from India

(Value in Rs. crores)

Commodity	1960-61	1970-71	1980-81	1990-91	1995-96	2001-02
Tea and Coffee	131	173	640	1332	2674	2814
Oil cakes/meals	145	55	125	709	2349	2263
Tobacco	16	33	141	263	447	808
Cashew kernels	19	57	140	447	1237	1652
Spices	17	39	11	239	794	1497
Sugar and Molasses	30	29	40	38	506	1782
Raw Cotton	12	14	165	856	204	43
Rice	-	5	224	462	4568	3174
Fish & Fish	5	31	217	960	3381	5897
Preparations Meat & meat	1	3	56	140	627	1193
Preparations Fruits, Vegetables & Pulses	6	12	80	216	802	1560
Processed Foods	1	4	36	213	745	1236
Others	32	31	182	952	2804	5393
Total Agricultural and Allied products	284	487	2057	6317	21138	29312

Source: Economic Survey 2002-03, Ministry of Finance and Company Affairs, Economic Division, Government of India, New Delhi, pp.S-84-86.

During the nineties, agricultural exports have received special attention since it is in this area that there exists great potential for raising farm incomes, tackling unemployment problem and earning foreign exchange. The impetus for accelerated growth in agricultural exports is envisaged through increased infrastructure support and by building up conducive policy environment. Some of the measures undertaken in this connection include, market determined exchange rate policy, lowering import duties on capital goods, particularly machinery necessary for food processing, easier availability of credit for exports, removal of restrictions on export of agricultural products and several concessions to export-oriented units.

Some of India's major export markets for various agricultural commodities are shown in Table 4.3.

Table 4.3

India's Major Export Markets for Various Agricultural Commodities

Name of Commodity	Apr 2005 - Feb 2006		Apr 2006 - Feb 2007	
	Export Value of Goods			
	(INR in Crores)	(US$ in Millions)	(INR in Crores)	(US$ in Millions)
1.GEMS & JEWELLARY	61,369.32	13,867.33	62,586.53	13,785.00
2.PETROLEUM CRUDE & PRODUCTS	47,016.18	10,624.02	76,683.05	16,889.83
3.RMG COTTON INCL ACCESSORIES	25,535.86	5,770.21	27,520.53	6,061.54
4.MACHINERY AND INSTRUMENTS	19,773.71	4,468.17	26,512.59	5,839.53
5.DRUGS,PHRMCUTES & FINE CHEMLS	19,553.87	4,418.49	21,833.63	4,808.97
6.MANUFACTURES OF METALS	16,674.57	3,767.87	20,156.05	4,439.47
7 TRANSPORT EQUIPMENTS	16,374.62	3,700.09	19,064.44	4,199.04
8 COTTON YARN,FABRICS,	15,638.97	3,533.86	16,682.33	3,674.37
9.IRON ORE	14,505.39	3,277.71	15,074.03	3,320.13
10.PRMRY & SEMI-FNSHD IRON & STL	11,641.69	2,630.62	17,856.68	3,933.02

11.PLASTIC & LINOLEUM PRODUCTS	11,239.89	2,539.82	13,132.29	2,892.45
12.OTHER COMMODITIES	10,157.94	2,295.34	22,636.02	4,985.70
13.ELECTRONIC GOODS	8,454.86	1,910.51	11,453.82	2,522.76
14.INORGANIC/ORGANIC/ AGRO CHEMLS	7,726.50	1,745.92	8,584.59	1,890.80
15. MANMADE YARN, FABRICS,MADEUPS	7,691.74	1,738.07	8,765.30	1,930.60
16. MARINE PRODUCTS	6,401.16	1,446.44	6,417.69	1,413.53
17 .DYES/INTMDTES & COAR TAR CHEML	6,029.60	1,362.48	9,207.34	2,027.96
18. NON-FERROUS METALS	4,923.14	1,112.46	14,323.19	3,154.76
19.PROCESSED MINERALS	4,433.27	1,001.76	5,182.24	1,141.42
20.OTHER ORES AND MINERALS	4,152.38	938.29	6,390.75	1,407.59
21.RMG MANMADE FIBRES	4,078.58	921.62	3,645.04	802.84
22.OIL MEALS	3,960.66	894.97	4,710.21	1,037.45
23.RUBR MFD. PRDCTS EXCPT FOOTWR	3,603.10	814.18	4,209.44	927.15
24.PAPER/WOOD PRODUCTS	3,420.08	772.82	4,102.55	903.61
25.CARPET(EXCL. SILK) HANDMADE	3,279.38	741.03	3,572.51	786.86
26.FOOTWEAR OF LEATHER	3,169.30	716.15	3,886.61	856.05
27.RICE (OTHER THAN BASMOTI)	2,929.21	661.90	3,668.38	807.98
28.RESIDL CHEMICL & ALLIED PRDCTS	2,865.65	647.54	3,016.44	664.39

29.GLS/GLSWR/CERMCS /REFTRS/CMNT/	2,856.98	645.58	3,450.60	760.01
30.RICE -BASMOTI	2,718.14	614.20	2,477.56	545.70
31.LEATHER GOODS	2,648.14	598.39	2,849.61	627.64
32.FINISHED LEATHER	2,532.20	572.19	2,794.80	615.57
33.MEAT & PREPARATIONS	2,474.31	559.11	2,925.45	644.34
34.CASHEW	2,389.86	540.02	2,255.92	496.88
35.COTTON RAW INCLD. WASTE	2,233.23	504.63	5,027.31	1,107.29
36.IRON&STL BAR/ROD ETC	2,229.39	503.77	3,394.22	747.59
37.COSMETICS/TOILETRIES	1,965.51	444.14	2,248.64	495.27
38. SPICES	1,894.59	428.11	2,718.26	598.71
39. HANDCRFS(EXCL .HANDMADE CRPTS)	1,867.24	421.93	1,539.14	339
40.NATRL SILK YARN, FABRICS,MADEUP	1,744.91	394.29	1,799.35	396.32
41.PAINTS/ENAMELS/ VARNISHES ETC.	1,690.16	381.92	1,682.52	370.58
42.RMG OF OTHR TEXTLE MATRL	1,595.12	360.44	1,855.51	408.68
43. TEA	1,589.85	359.25	1,859.71	409.61
44. RMG WOOL	1,508.88	340.95	1,530.53	337.11
45. LEATHER GARMENTS	1,402.70	316.96	1,316.37	289.94
46. COFFEE	1,391.80	314.5	1,717.29	378.24
47.RMG SILK	1,032.17	233.23	1,062.41	234.00
48.FERRO ALLOYS	1,008.15	227.81	1,417.38	312.19
49.PULSES	985.36	222.66	716.65	157.85
50.FRESH FRUITS	938.58	212.09	1,167.26	257.10
51.GUERGUM MEAL	929.61	210.06	1,016.15	223.81
52. MACHINE TOOLS	916.16	207.02	964.67	212.47
53. TOBACCO UNMANUFACTURED	887.42	200.53	1,108.72	244.2
54.MISC PROCESSED ITEMS	886.47	200.31	997.64	219.74
55. CASTOR OIL	862.98	195.00	992.84	218.68
56.FRESH VEGETABLES	823.33	186.04	1,322.54	291.3

57.ALUMINIUM OTHR THAN PRODUCTS	798.88	180.52	1,191.20	262.37
58.LEATHER FOOTWEAR COMPONENTS	723.21	163.42	883.08	194.5
59.DAIRY PRODUCTS	703.71	159.01	475.70	104.78
60 .SESAME SEEDS	659.18	148.95	703.45	154.94
61.PROJECT GOODS	596.72	134.84	412.62	90.88
62.WHEAT	556.95	125.85	35.86	7.90
63.COIR & COIR MANUFACTURES	541.16	122.28	586.88	129.26
64.SPORTS GOODS	532.61	120.35	529.22	116.56
65.PROCESSED FRUITS & JUICES	517.71	116.99	635.35	139.94
66. JUTE HESSIAN	460.71	104.10	349.66	77.01
67. OTHER CEREALS	437.07	98.76	562.21	123.83
68. GROUNDNUT	430.08	97.18	698.25	153.79
69. PROCESSED VEGETABLES	426.99	96.48	539.67	118.87
70.COMP.SOFTWARE IN PHYSICAL FORM	372.00	84.06	210.85	46.44
71.SUGAR	368.89	83.36	2,651.86	584.09
72. WOLLEN YARN,FABRICS ,MADEUPSETC	341.44	77.15	342.13	75.36
73. MANMADE STAPLE FIBRE	335.84	75.89	790.07	174.02
74.SADDLERY AND HARNES	299.58	67.69	335.89	73.98
75. POULTRY PRODUCTS	298.82	67.52	262.00	57.71
76. FLOOR COVERING OF JUTE	288.26	65.14	276.05	60.80
77.TOBACCO MANUFACTURED	274.75	62.08	372.28	82.00
78.RESIDUAL ENGINEERING ITEMS	273.87	61.89	320.57	70.61
79.FLORICLTR PRODUCTS	272.45	61.56	356.68	78.56
80.SPIRIT & BEVERAGES	232.82	52.61	226.53	49.89
81.OTHER JUTE MANUFACTURES	227.82	51.48	249.70	55.00
82.FOOTWEAR OF RUBBER/CANVAS.	223.00	50.39	212.21	46.74
83.COAL	220.5	49.83	339.25	74.72
84.JUTE YARN	210.05	47.46	229.39	50.53
85.SHELLAC	145.64	32.91	133.05	29.30

86.SILK CARPET	95.05	21.48	118.28	26.05
87.FRUITS / VEGETABLE SEEDS	75.67	17.10	97.65	21.51
88. MICA	69.07	15.61	69.07	15.21
89.NIGER SEEDS	53.70	12.13	56.61	12.47
90.MOLLASES	26.93	6.09	119.37	26.29
Total	404,719.56	91,452.54	510,488.44	112,437.68

Recent Policies on Trade

Export-Import Policy, 1992-97

The Government of India announced a new five year export-import policy effective from April 1, 1992 which gave further push to liberalization of imports and intended to give significant boost to exports. Under this policy, the international trade was made free subject to a negative list of imports and exports. But as far as farm products and related goods are concerned, most of them remained a part of the negative list, as per the following details:

Negative List of Exports

(i) Permitted Subject to Licensing -

Coconut, copra, seeds and planting materials, cotton seed, vegetable oils, groundnut cakes, rice bran, milk, cattle, camels, chemical fertilizers. (ii) Permitted through Canalising Agency -

Onion (NAFED), Niger Seed (NAFED/TRIFED), Powdered Milk (NDDB), Ghee (NDDB). (iii) Permitted without a licence but subject to terms and conditions -

Basmati rice, non-basmati rice, wheat, barlet, maize, bajra, jowar, ragi, HPS groundnut, raw cotton (Bengal desi, Assam comilla, staple cotton, yellow picking), sesame seed, sugar, gram and gram flour, wheat flour, deoiled groundnut cake, deoiled rice bran, VFC tobacco, soyabean extractions, cotton yarn, black pepper etc.

Negative List of Imports

(i) Canalised Items -

All fertilizers (MMTC), edible oils (STC, HVOC), seeds of oilseed crops (STC, HVOC), Cereals (FCI).

(ii) Restricted Items -

Livestock, plants, seeds and other materials (licence from the department of Agriculture).

The import of pulses, raw cashewnut, seeds of vegetables and flowers, plants, tubers and bulbs of flowers etc., were placed in the negative list.

The philosophy underlying these massive trade policy reforms include the following:

(i) Trade – both exports and imports can flourish in a free regime.

(ii) Trade policy should go far beyond balancing of imports and exports and should lead to better technology, greater investment and more efficient production at home.

(iii) Liberalization and removal of licensing, quantitative restrictions and other discretionary controls on matters relating to exports and imports are essential to trade policy reforms. This meant fewer governmental restrictions, greater freedom to trade and lesser administrative controls.

The process of pruning the negative list and decanalization has continued in recent years.

Main Features of Export-Import (EXIM) Policy, 2002-07

- Removal of all quantitative restrictions and decanalization of exports (except a few sensitive items) of farm products.
- Scheme of Special Economic Zones (SEZ) strengthened.
- Major thrust to promote agricultural exports by setting up of Agri Export Zones and by removing export restrictions on designated items (agro and agro-based products).
- Transport subsidy provided for export of fruits, vegetables, floriculture, poultry and dairy products.
- Simplification of procedures to further reduce transaction costs.
- Widening of the scope of Market Access Initiative Scheme to include setting up of Business Centres in Indian Missions abroad for focused market promotion of exports.
- Dereservation from small scale industry provisions of over 50 items including agricultural implements.

Agri-Export Zones

The Government announced the proposal to set-up Agri-Export Zones in the EXIM Policy 2001-02 for the purpose of developing and sourcing raw materials and their processing/packing leading to final exports. The concept essentially embodies a cluster approach of identifying the potential products and the geographical regions in which such products are grown and adoption of end-to-end approach of integration of the entire process. Under the scheme, the state government would identify products with export potential which have comparative advantage in the local area. APEDA is the nodal agency of the Central Government to promote setting up of Agri-Export Zones.

Till December, 2002, the Central Government has sanctioned and notified 41 Agri-Export Zones (AEZs) which are being set up in 16 states-West Bengal, Uttaranchal, Karnataka, Punjab, Uttar Pradesh, Tamil Nadu, Maharashtra, Andhra Pradesh, Tripura, Jammu & Kashmir, Madhya Pradesh, Bihar, Gujarat, Sikkim, Himachal Pradesh, Orissa and Jharkhand. Agricultural

products covered under these AEZs are Litchi, pineapple, potatoes, onion, garlic, mangoes (Kesar, Chausa, Dusshari, Alphonso), grapes, flowers, apples, vegetables, walnuts, gherkins, wheat, ginger, turmeric, basmati rice and seed spices. A projected export of more than Rs.3000 crore during the next 5 years and a substantial amount of direct and indirect employment is likely to be generated as a consequence of setting up of these zones. These 41 AEZs will entail an estimated investment of Rs.1142.5 crores, out of which Rs.333.68 crores will flow from various Central Government agencies like APEDA, NHB, Ministry of Food Processing Industry and Ministry of Agriculture; Rs.168.61 crores from state governments and Rs.640.24 crores from the private sector.

International Trade Agreements

GATT (The General Agreement on Trade and Tariffs)

The General Agreement on Trade and Tariff (GATT) was a multinational treaty to liberalize world trade. It took effect on 1st January, 1948 and ended when 117 member states signed the Uruguay Round of negotiations in Marrakesh, Morocco on 15th April, 1994. GATT's administrative structure in Geneva was succeeded by the World Trade Organization (WTO) under the Uruguay Round agreement.

GATT established a code of conduct for international trade, based on the principle that the trade should be conducted without discrimination, tariffs should be reduced through multilateral negotiations, and member, countries, should consult each other to overcome trade problems. GATT centre operated jointly with the United Nations Conference on Trade and Development to assist developing nations in promoting their exports.

Under GATT, a total of eight round of talks of trade negotiations brought about phased reductions in tariffs and other trade barriers. The prolonged eighth round of talks began in September, 1986 at part del Este, Uruguay. In this, the participants agreed to expand the negotiations to include banking investment, intellectual properties and telecommunications. The talks were concluded in December, 1993 and resulted in the far reaching trade liberalization in the history. Trade in the agricultural commodities was included in the agreement for the first time.

The Uruguay Round launched over 1986-94 was the most ambitious so far. This round also established the World Trade Organisation (WTO). The successor to the General Agreement on Trade and Tariff (GATT). It brought international trade rules to areas previously excluded or subjected to weak rules (agriculture, textiles and clothing), services, Trade Related Investment Measures, and Trade Related Intellectual Property Rights (TRIPS) and strengthened the dispute settlement mechanism. Despite these achievements, the global

trading system faces major challenges. Against these challenges, the ministerial conference in Doha in November, 2001 adopted the Development Agenda, which calls for a more coherent approach to trade and development and puts the needs and interests of the developing countries at the heart of the WTO's work program.

World Trade Organisation (WTO)

WTO is an international body to supervise and encourage international trade. The Uruguay Round of trade talks concluded in 1994 resulted in setting up of the World Trade Organisation (WTO) to take over the functioning of GATT for encouraging multilateral trade in goods and services. The WTO began functioning on 1st January, 1995. The Agreement on Agriculture (AoA) under WTO requires clear understanding.

Agreement on Agriculture (AoA) under WTO

The provisions under AoA can be understood to consist of five broad groups:

(i) Market Access Commitment

(ii) Reduction Commitment for Aggregate Measure of Support (AMS)

(iii) Reduction Commitment for Export Subsidy

(iv) Sanitary and Phyto-Sanitary Measures (SPS)

(v) Trade Related intellectual Property Rights (TRIPS)

(i) Market Access

The provisions under market access commitment include the following:

(a) Tariffication of all non-tariff barriers (like converting quantitative restrictions to import duty)

(b) Reduction of all tariffs in a time bound framework as follows:

Countries	Period	Reduction %
* Developed	6 years	36
* Developing	10 years	24
* Less Developed	-	0
* Those with BP problem	-	0

(c) If imports of foreign goods to the domestic market is less than three per cent in the base period (1986-88), it must be brought to three per cent and to further raise it to five per cent in the implementation period.

(d) If dumping is proved, the countries will have the freedom to increase the import duty.

(ii) Aggregate Measures of Support (AMS)

The aggregate measures of support for a country's agriculture is the sum of product specific and non-product specific subsidies. If AMS in the base period (1986-88) is more than

the permissible limit, it should be reduced by the following amount during the implementation period:

Country	Permissible AMS (% of GDP)	Reduction commitment if exceeds the limit (%)
* Developed	5%	20%
* Developing	10%	13%
* Less Developed	NA	-
* Those with BP problem	-	0

(iii) Export Subsidies

The reduction commitment for export subsidies require that (a) the developed countries would reduce it by 36 per cent in six year; and (b) the developing countries would reduce it by 24 per cent in 10 years.

(iv) Sanitary and Phyto-Sanitary Measures (SPS)

The SPS provisions of AoA require all exporters to employ international standards relating to sanitary and phyto-sanitary conditions. In the case of default, the importing countries are allowed to prohibit imports from defaulting countries.

(v) TRIPS

Trade related intellectual property rights include copyrights, trade-marks, geographic indications, industrial designs, and patents. According to AoA, all the countries are required to provide for arrangements for protection of plant varieties. The developing countries were given a period of five years to evolve such arrangements.

The main features of the WTO Agreement on Agriculture (AoA), which are of concern to India, are:

(i) India has been maintaining quantitative restrictions (QRs) on import of 825 agricultural products as on 1st April, 1997. Under the provisions of the Agreement, such QRs were to be eliminated. India had sought to remove them in three phrases within an overall time frame of six years i.e. upto 31st March, 2001. These QRs have since been replaced with appropriate tariffs.

(ii) The Agreement also imposed constraints on the level of domestic support provided to the agricultural sector. In India's case, it may have, in future, some implications on minimum support prices given to farmers and on the subsidies given on agricultural inputs. However, the Agreement allows us to provide domestic support to the extent of 10% of the total value of agricultural produce. Our support to the Indian farmers continues to be less than permissible limit.

(iii) Disciplines on export subsidy do not affect us as India is not providing any export subsidy on agricultural products.

(iv) The Agreement allows unlimited support to activities such as:

(a) Research, pests & diseases control, training, extension and advisory services;

(b) Public stock holding for food security purposes;

(c) Domestic food aid; and

(d) Income insurance and food needs, relief from natural disasters and payments under the environmental assistance programmes.

Model Quiz

1. Globalisation of a country's economy would increase its
   a. Export b. Import c. Both a and b d. Foreign exchange Reserve Ans: c
2. Globalisation of Indian economy was initiated in the year
   a. 1981 b. 1985 c. 1991 d. 1995
   Ans: c
3. Trade liberalisation in India resulted in
   a. Increased share of agricultural and allied products in total export earnings.
   b. Increase in absolute value of total exports.
   c. Both a and b
   d. None of these Ans: b
4. Pick the odd man out
   a. MPEDA b. APEDA c. NAFED d. DMI Ans: d
5. Tariffication of all non tariff barriers is related to
   a. Market access commitment b. Aggregate measure of support
   c. Export subsidy d. TRIPS Ans: a
6. AOA allows unlimited support to activities such as
   a. Pest and disease control b. Public stock holding for food security purpose.
   c.domestic food aid d. All of these Ans: d

TRUE or FALSE

1. In the absence of any public intervention in the domestic market, the producers gain by exporting and lose by importing. (True)
2. Capacity of a country to import depends on its ability to export. (True)
3. Devaluation of the country's currency would benefit the exporters. (True)

4. Processed fruits and juice are the traditional export products of India that show good prospects. (False)

5. Rice is an important non traditional good exported from India. (True)
6. Code of conduct established by GATT does not permit the member countries to consult each other to overcome trade problems. (False)
7. GATT was a bilateral treaty to liberalise the world trade. (False)
8. As per WTO provisions, countries will have the freedom to increase the import duty if dumping is proved. (True)
9. Reduction commitment is more for developed countries than for developing countries in the case of AMS. (True)
10. Reduction commitment is less for developed countries than for developing countries in the case of export subsidies. (False)

CHAPTER.5

COOPERATIVE AGRICULTURAL MARKETING

INSTITUTIONS Co-operative Marketing

The establishment of co-operative marketing societies was another step which has been taken to overcome the problems arising out of the present system of marketing agricultural produce. The objectives of economic development and social justice can be furthered by channelising agricultural produce through cooperative institutions.

Private agencies dominate the Indian food grains trade. Farmers complain of the marketing system because they get lower prices, due mainly to high marketing charges and the prevalence of malpractices. The efforts of the government to improve the marketing system of agricultural commodities have been only partially successful in creating healthy conditions for scientific and efficient marketing. Moreover, the progress of regulated markets is not uniform in all areas. The need for strengthening co-operative organization has, therefore, been recognized for the marketing of the produce of farmers and for making inputs available for them at the right price and time. The co-operative institutions are expected to function as competitors of private traders in the market. These organizations pool the produce of the small farmers having a small surplus to market and improve their bargaining power. They have also helped government agencies in the execution of the policy decisions bearing on the procurement and distribution of food grains and other essential commodities.

Meaning

A co-operative sales association is a voluntary business organization established by its member patrons to market farm products collectively for their direct benefit. It is governed by democratic principles, and savings are apportioned to the members on the basis of their patronage. The members are the owners, operators and contributors of the commodities and are the direct beneficiaries of the savings that accrue to the society. No intermediary stands to profit or loss at the expense of the other members.

Co-operative marketing organizations are associations of producers for the collective marketing of their produce and for securing for the members the advantages that result from large-scale business which an individual cultivator cannot secure because of his small marketable surplus.

In a co-operative marketing society, the control of the organization is in the hands of the farmers, and each member has one vote irrespective of the number of shares

purchased by him. The profit earned by the society is distributed among the members on the basis of the quantity of the produce marketed by him. In other words, co-operative marketing societies are established for the purpose of collectively marketing the products of the member farmers. It emphasizes the concept of commercialization. Its economic motives and character distinguish it from other associations. These societies resemble private business organization in the method of their operations; but they differ from the capitalistic system chiefly in their motives and organizations.

Functions

The main functions of co-operative marketing societies are:

(i) To market the produce of the members of the society at fair prices;

(ii) To safeguard the members for excessive marketing costs and malpractices;

(iii) To make credit facilities available to the members against the security of the produce brought for sale;

(iv) To make arrangements for the scientific storage of the members' produce;

(v) To provide the facilities of grading and market information which may help them to get a good price for their produce;

(vi) To introduce the system of pooling so as to acquire a better bargaining power than the individual members having a small quantity of produce for marketing purposes;

(vii) To act as an agent of the government for the procurement of foodgrains and for the implementation of the price support policy;

(viii) To arrange for the export of the produce of the members so that they may get better returns;

(ix) To make arrangements for the transport of the produce of the members from the villages to the market on collective basis and bring about a reduction in the cost of transportation; and

(x) To arrange for the supply of the inputs required by the farmers, such as improved seeds, fertilizers, insecticides and pesticides.

History

The history of co-operative marketing in India dates back to 1912, when the Co-operative Marketing Societies Act, 1912 was passed. The first Co-operative Society was formed in Hubli in 1915 to encourage cultivation of improved cotton and to sell it collectively. In 1918, The South Canara Planters Co-operative Sale Society was formed in the then Composite Madras Province for joint sale of arecanut. The Royal

Commission on Agriculture (1928) stressed the need for group marketing instead of individual marketing. The Central Banking Enquiry Committee (1931) also underlined the need for organized marketing. The XI Conference of Registrars of Co-operative Marketing also emphasized the need for cooperative marketing. In 1945, the Co-operative Planning Committee recommended that at least 25 per cent of the marketable surplus should be channelised through Co-operative societies within the next 10 years by forming one society for a group of 200 villages.

The All India Rural Credit Survey Committee (1954) brought to light the dismal performance of the existing marketing co-operatives. In a simple of 75 districts surveyed, there was no co-operative marketing society in 63 districts. In remaining districts only around one per cent of the total sale of agricultural produce was done through the societies. The committee suggested the establishment of primary co-operative marketing societies and linking of credit with marketing. The First Five Year Plan (1951-56) laid stress on the establishment of agricultural marketing and processing co-operative societies. In 1958, the National Agricultural Co-operative Marketing Federation (NAFED) was established as the apex body of co-operative marketing. In 1963, the National Co-operative Development Corporation (NCDC) was set up for promoting programmes relating to co-operative societies. The Mirdha Committee (1965) recommended that the membership of agricultural marketing societies should be restricted to the agriculturists and traders should not be allowed to join agricultural marketing societies.

The Dantwala Committee (1966) stressed the need for co-operation and integration among the various co-operative organizations after reviewing the pattern of co-operative marketing, distribution of inputs to farmers and supply of consumers products. Based on the survey of the co-operative marketing societies in 1968, the Reserve Bank of India recognized that effective linking of credit with marketing was necessary. The All India Rural Credit Review Committee, 1969 also recommended the strengthening of co-operative marketing, with a view to helping the government agencies in the execution of price support programmes. There is a multi-state cooperative marketing Act in place now.

Types

On the basis of the commodities dealt in by them, the co-operative marketing societies may be grouped into the following types:

(i) Single Commodity Co-operative Marketing Societies

They deal in the marketing of only one agricultural commodity. They get sufficient business from the farmers producing that single commodity. The examples are Sugarcane Co-operative Marketing Society, Cotton Co-operative Marketing Society and Oilseed Growers Co-operative Marketing Society.

(ii) Multi-Commodity Co-operative Marketing Societies

They deal in the marketing of a large number of commodities produced by the members, such as foodgrains, oilseeds and cotton. Most of the co-operative marketing societies in India are of this type.

(iii) Multi-purpose, Multi-commodity Co-operative Marketing Societies

These societies market a large number of commodities and perform such other functions as providing credit to members, arranging for the supply of the inputs required by them, and meeting their requirements of essential domestic consumption goods.

Structure

The co-operative marketing societies have both two-tier and three-tier structure. In the states of Assam, Bihar, Kerala, Madhya Pradesh, Karnataka, Orissa, Rajasthan and West Bengal, there is a two-tier pattern with primary marketing societies at the taluka level and state marketing federation as an apex body at the state level. In other states, there is three-tier system with district marketing society in the middle. At the national level, NAFED serves as the apex institution. The pattern of the three-tier structure is as follows:

(i) Base Level

At the base level, there are primary co-operative marketing societies. These societies market the produce of the farmer members in that area. They may be single commodity or multicommodity societies, depending upon the production of the crops in the area. They are located in the primary wholesale market, and their field of operations extends to the area from which the produce comes for sale, which may cover one or two tehsils, panchayat samitis or development blocks.

(ii) Regional/District Level

At the regional or district level, there are central co-operative marketing unions or federations. Their main job is to market the produce brought for sale by the primary co-operative marketing societies of the area. These are located in the secondary wholesale markets and generally offer a better price for the produce. The primary co-operative marketing societies are members of these unions in addition to the individual farmer

members. In the two-tier structure, the State societies perform the functions of district level societies by opening branches throughout the district.

(iii) State Level

At the state level, there are apex (State) co-operative marketing societies or federations. These state level institutions serve the state as a whole. Their members are both the primary co-operative marketing societies and the central co-operative unions of the state. The basic function of these is to coordinate the activities of the affiliated societies and conduct such activities as inter-state trade, export-import, procurement, distribution of inputs and essential consumer goods, dissemination of market information and rendering expert advice on the marketing of agricultural produce.

The cooperative marketing network of the country includes 27 state level marketing federations 199 district/regional marketing co-operative societies, and 4398 primary cooperative marketing societies besides NAFED at the national level.

Membership

There are two types of members of co-operative marketing societies:

(i) Ordinary Members

Individual farmers, co-operative farming societies and service societies of the area may become the ordinary members of the co-operative marketing society. They have the right to participate in the deliberations of the society, share in the profits and participate in the decision making process.

(ii) National Members

Traders with whom the society establishes business dealings are enrolled as nominal members. Nominal members do not have the right to participate in decision making and share in the profits of the societies.

Sources of Finance

In 1966, the Dantwala Committee estimated a capital base of Rs.2.00 lakhs for a co-operative marketing society. At 2003 prices, it should be at least Rs.40.00 lakhs. The following are the major sources of finance of a co-operative marketing society:

(i) Share Capital

Farmer-members and the State Government subscribe to the share capital of co-operative marketing societies. Members may purchase as many shares as they like. They are encouraged to invest sufficiently in the share capital. They are also persuaded to invest their dividend and bonus in the shares of co-operative marketing societies.

(ii) Loans

Co-operative marketing societies may raise their finance by way of loans from the Central and State Co-operative Banks and from commercial banks by pledging and hypothecation and also by clean credit to the extent of 50 per cent of owned capital.

(iii) Subsidy

The Co-operative marketing societies get a subsidy from the government for the purchase of grading machines and transport vehicles to meet their initial heavy expenditure. They also get a subsidy for a part of the cost of the managerial staff for a period of 3 years to make them viable.

Functioning

The important functions carried out by the co-operative marketing societies are:

(i) Sale on Commission Basis

Co-operative marketing societies act as commission agents in the market, i.e., they arrange for the sale of the produce brought by the members to the market. The produce is sold by the open auction system to one who bids the highest price. The main advantage, which the farmer-members get by selling the produce through co-operative marketing societies instead of a commission agent, is that they do not have to accept unauthorized deductions or put up with the many malpractices, which are indulged in by individual commission agents. As there is no individual gain to any member in the marketing of the agricultural produce through co-operative marketing societies, no malpractices are expected to be indulged in.

This type of marketing is not risky for co-operative societies. But sometimes traders in the market form a ring and either boycott the auction or bid a low price when the produce is auctioned on the co-operative marketing societies shops. These tactics of the traders reduce the business of co-operative marketing societies. Therefore, farmers hesitate to take their produce for sale in the market through co-operative marketing societies.

(ii) Purchase of Members' Produce

Co-operative marketing societies also enter the market as buyers. A society participates in bidding together with other traders, and creates conditions of competition. The commodities thus purchased by a society are sold again when prices are higher.

This system of the outright purchase of the produce by the society involves the risk of price fluctuations. If the managers of societies lack business experience, they hesitate to adopt the outright purchase system. In 1964-65, the National Cooperative

Development Corporation recommended that the outright purchase system should be adopted only by a society which possesses the following qualities:

(a) The society has a trained manager, i.e., one who is capable of understanding the intricacies of the trade;
(b) The society is financially sound and has adequate borrowing facilities;
(c) The society is affiliated to a good viable central level society; and
(d) The society possesses processing facilities.

(iii) Advancement of Credit

Co-operative marketing societies advance finance to farmers against their stock of foodgrains in the godowns of the societies. This increases the holding power of the farmers and prevents distress sales. Generally, societies advance credit to the extent of 60 to 75 per cent of the value of the produce stored with them. The recoveries are effected from the sale proceeds of the produce of the farmer. This function involves no risk to the society. Moreover, it increases the business.

(iv) Procurement and Price Support Purchases

Co-operative marketing societies act as agents of the government in the procurement of foodgrains and other agricultural commodities at the announced procurement or support prices.

(v) Other Functions

The following functions are also carried out by them, depending upon the availability of funds and other facilities:

(a) They assemble the marketable surplus of small and marginal farmers and transport this surplus from villages to the society headquarters for disposal;
(b) They make arrangements for the grading of the produce and encourage producers to sell the produce after grading so that they may get better prices;
(c) They undertake the processing of produce;
(d) They make arrangements for the export of agricultural commodities in collaboration with the State Level Co-operative Marketing Federation and the National Agricultural Co-operative Marketing Federation;
(e) They undertake inter-state trade in agricultural commodities; and
(f) They distribute agricultural production inputs, such as fertilizers improved seeds, pesticides, agricultural implements, and such essential consumer articles as sugar, kerosene oil and cloth.

(vi) Integrated System of Co-operative Marketing

An integrated programme of co-operative development embracing credit, marketing, processing, warehousing and storage has been formulated. The important features of the integrated system are linking up of credit with marketing, development of agro-processing on co-operative lines and promotion of storage and warehousing.

Cooperative Processing

Co-operative processing is also making good progress in addition to co-operative marketing. The structure of processing units established in the co-operative sector is of two distinct patterns, i.e., those which are set up by independent processing societies, such as co-operative sugar factories and spinning mills and those which are established as adjuncts of co-operative marketing societies, e.g., small and medium co-operative processing units, such as rice mills, jute baling mills and cotton spinning and processing units.

Progress

Information on the progress of co-operative marketing societies in India is given in Table 5.1.

Table 5.1

Progress of Co-operative Marketing and Processing Societies in India

Particulars	1960-61	1970-71	1980-81	1991-92
1. Primary Agricultural Co-operative Marketing Societies:				
(a) Number of societies	3108	3222	3789	7871
(b) Membership (Lakhs)	13.93	26.71	34.51	48.27
2. Value of agricultural produce marketed by Co-operatives (Rs. Crores)	179	649	1950	7100
3. Value of agricultural inputs distributed by Co-operatives (Rs. Crores)	36	317	1114	2475
4. Number of co-operative Sugar factories (licensed)	56	123	179	231
5. Number of Cotton Co-operative Ginning & Processing Societies	155	234	327	327
6. Total Agro processing units in the	300	-	-	2300

co-operative sector The value of agricultural produce marketed through the co-operative marketing societies increased from Rs.53 crores in 1955-56 to Rs.7871 crores in 1991-92. The produce marketed through these societies account for 8 to 10 per cent of the marketed surplus. The important commodities marketed by these societies are foodgrains, sugarcane, cotton, oilseeds, fruits, vegetables and plantation crops. The progress of co-operative marketing societies has varied from State to State and within each State from commodity to commodity. Maharashtra, Uttar Pradesh, Gujarat, Punjab, Karnataka, Tamil Nadu and Haryana together account for more than 80 per cent of the total agricultural produce marketed through co-operatives in the country.

The other important function performed by these societies is the marketing of agricultural inputs viz., fertilizers, improved seeds, insecticides, pesticides, agricultural implements and machinery. Over 70,000 retail outlets of these societies deal in these inputs. The value of agricultural inputs marketed by co-operative marketing societies has increased from Rs.36 crores in 1960-61 to more than Rs.2475 crores in 1991-92.

During the last forty years, the number of Primary Agricultural Cooperative Marketing Societies increased from 3108 in 1960-61 to 7871 in 1991-92. By the end of March, 1992, there were 2933 general purpose primary cooperative marketing societies, 4938 special commodity primary cooperative marketing societies, 191 district/regional marketing societies and 29 state cooperative marketing federations. These apart, there are 16 commodity-marketing federations, National Agricultural Cooperative Marketing Federation (NAFED) and National Cooperative Development Corporation (NCDC) at the national level. The value of produce handled by the cooperatives multiplied manifold from Rs.179 crores in 1960-61 to over Rs.7100 crores in 1991-92. In addition, these institutions had supplied inputs to their members for agricultural activities valued at Rs.2475 crores in 1991-92 compared to Rs.36 crores in 1960-61. The cooperatives have continued to maintain their share at around 30 per cent in the total fertilizers distributed to the farmers in India.

The cooperatives have constructed warehouses with a total storage capacity of 13.55 million tones by the end of March, 2000 compared to 8.0 lakh tones by the end of March, 1961. For specific commodities viz., cotton and oilseeds, growers societies in cooperative sector also exist at regional level with state level federations at state level to deal with the specific problems in marketing of these crops produced in specific areas. For the benefit of sugarcane growers, there are 231 cooperative sugar factories in the

country which provide marketing and price support to the sugarcane growers of their hinterlands. The cooperative sugar factories account for around 60 per cent of the total sugar produced by 408 sugar factories in the country. In northern states, where private sugar factories dominate the cane market, there are several cane growers cooperative societies to manage the supply of cane produced by the farmers to sugar factories. There was also two-fold increase in cotton spinning and processing societies in the country during the last forty years.

In Gujarat, Maharashtra, Andhra Pradesh and Tamil Nadu, considerable quantities of the food grains are marketed by co-operative societies. In Maharashtra and Uttar Pradesh, 75 per cent of sugarcane, in Maharashtra and Gujarat, 75 per cent of cotton, and in Karnataka 84 per cent of plantation crops are marketed by the co-operative societies. However, the progress of co-operative marketing societies has been far from satisfactory in most states of the country because farmer-members do not patronize these societies for the sale of their produce. Instead, they use the services of commission agents.

The success of cooperative marketing is not universal across commodities, sectors and geographical regions.

(i) The performance of cooperatives in dairy and sugarcane sectors is noteworthy. Dairy cooperatives present the most successful example of cooperative marketing.

(ii) The success of cooperatives and transforming the social and economic landscape of Gujarat state and some other parts of the country is a testimony of the role of cooperatives in agricultural marketing in the country.

(iii) The role of the cooperatives in improving the marketing environment for farmers have also been quiet significant.

However, the cooperatives as a whole account for only 10 per cent of the total quantities of agricultural commodities marketed by the farmers. This share needs to be improved in the light of predominance of small-scale farmers, technological changes in marketing practices and as a long-term solution for improving farmer's price realization.

Reasons of slow Progress of Cooperative Marketing

The main reasons of the slow process are:

(i) Co-operative marketing societies are generally located in big markets/towns and quick and cheap transport facilities are not available for the carriage of the produce from the villages to the societies;

(ii) Farmers are indebted to local traders and enter into advance contracts with them for the sale of the crop;

(iii) Farmers are in immediate need of cash after the harvest to meet their personal obligations. They, therefore, sell their produce to local traders; they cannot wait for the time required to move the produce to the mandi;

(iv) There is lack of loyalty among members to co-operative marketing societies because of their poor education and absence of the co-operative feeling;

(v) In some cases rivalries among farmer-members result in indecision, which hampers the progress of the societies;

(vi) Members lack confidence in co-operative organizations, for most of the co-operative sector enterprises run at a loss;

(vii) The societies do not act as banks for the farmers;

(viii) Managers of societies do not offer business advice to members;

(ix) Societies do not provide facilities of food and shelter to farmers when they visit the market for the sale of the produce;

(x) The managers of the societies are often linked with local traders and become impersonal to the needs of a majority of small and marginal farmers;

(xi) There is lack of sufficient funds with the societies to meet the credit needs of the farmers against pledging of the produce brought for sale. Nor do they make an advance payment of the value of the produce purchased or sold through them;

(xii) Co-operative marketing societies are not capable of carrying on their business in competition with traders and commission agents, because of the absence of adequate business expertise among their employees; and

(xiii) There is a lack of sufficient storage facilities with the societies. They, therefore, try to dispose of the produce soon after their arrival; a fact which results in lower prices for the farmers.

Suggestions for Strengthening of Cooperative Marketing Societies

(i) The area of the operations of the societies should be large enough so that they may have sufficient business and become viable. Most of the societies at present are not viable because of the small volume of their business.

(ii) Co-operative marketing societies should develop sufficient storage facilities in the mandi as well as in the villages.

(iii) The societies should give adequate representation to the small and marginal farmers in their organizational set-up.

(iv) The co-operative feeling among members should be inculcated by proper education by organizing seminars and by the distribution of literature.

(v) In the selection of the officials of co-operative marketing societies, weightage should be given to business experience and qualifications. After their selection, the officials should be given proper training so that they may deal efficiently with the business of the society. The efficiency should be rewarded, wherever possible.

(vi) There is a need for bringing about a proper co-ordination between credit and marketing co-operative societies to facilitate the recovery of loans advanced by credit societies, and make available sufficient finance for marketing societies.

(vii) The societies should-acquire the transport facility to bring the produce of the members from the villages to the mandi in time and at a lower cost.

(viii) Co-operative marketing societies should diversify their activities. They should sell the produce and inputs, and engage in the construction of storage facilities.

(ix) Marketing societies, like the private traders, should provide accommodation and the drinking water facility for their members when the latter come to the mandi.

(x) The public procurement and public distribution programmes should be implemented through co-operative marketing societies to increase their business; and

(xi) The cooperatives should be made free from government control.

NAFED

The National Agricultural Co-operative Marketing Federatiopn of India (NAFED) is an apex organization of marketing cooperatives in the country. It deals in procurement, processing, distribution, export and import of selected agricultural commodities. The NAFED is also the central nodal agency for undertaking price support operations for pulses and oilseeds and market intervention operations for other agricultural commodities.

The National Agricultural Co-operative Marketing Federation (NAFED) was established in October, 1958. The State Level Marketing Federations and the National Co-operative Development Corporation are its members. The head office of NAFED is at Delhi, and its branch offices are located at Mumbai, Kolkata and Chennai. NAFED's area of operation extends to the whole country. It has established branches in all the major port towns and capital cities in the country.

Objectives

The main objectives of NAFED are:

(a) To co-ordinate and promote the marketing and trading activities of its affiliated co-operative institutions;

(b) To make arrangements for the supply of the agricultural inputs required by member institutions;

(c) To promote inter-state and international trade in agricultural and other commodities; and

(d) To act as an agent of the government for the purchase, sale, storage and distribution of agricultural products and inputs.

Activities

The NAFED performs the following activities:

(a) Internal Trade

NAFED is engaged in interstate trade in agricultural commodities, particularly foodgrains, pulses, oilseeds, cotton, jute, species, fruits, vegetables and eggs with a view to assuring better prices to the producers. The objectives of internal trade operations are both the market support to farmers and maintaining steady supply of commodities to consumers of reasonable prices. NAFED purchases agricultural commodities through the co-operatives, public sector organizations and state agencies. Turn over of NAFED over five years period from 2004-05 is presented in Fig. 5.1

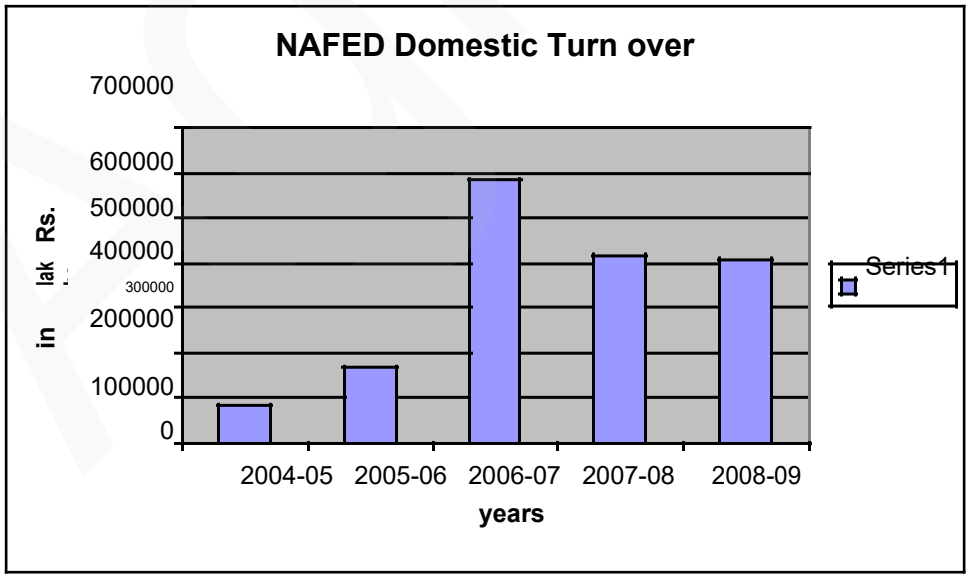


Fig. 5.1 Domestic Turn over of NAFED over years

(b) Foreign Trade – Export and Import of Agricultural Commodities

Exports – Exports of agricultural commodities through the co-operative marketing system developed on a large scale after the establishment of NAFED. The NAFED exports agricultural commodities, particularly onions (canalized), potatoes, ginger, garlic, nigerseed, sesameseed, gum, deoiled cake of groundnut, soyabean and cottonseed, fresh and processed fruits and vegetables; spices – black pepper, cardamom, turmeric, cuminseed, coriander seed; cereals – rice, barley, bajra, jowar, and ragi and jute bags to various countries including Sri Lanka, England, Mauritius, Australia, Belgium, Canada, Fiji, Hong Kong, Japan, Malaysia, the USA and number of African, West Asian and Gulf countries.

The market intervention undertaken by NAFED has many times helped the growers of such crops as onion, potato, copra, chillies and other's in realizing reasonable prices even in those years when market prices crashed. Export turn over of NAFED in lakhs of Rs. over five years from 2004-05 is presented in Fig. 5.2.

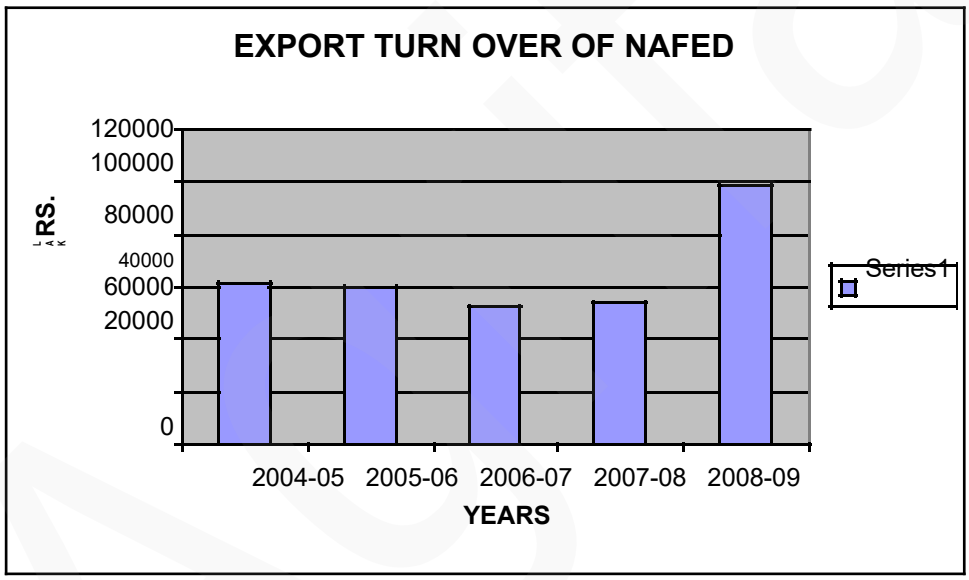


Fig. 5.2 Export Turn Over Of NAFED Over years

Imports – The NAFED also arranges for the imports of pulses, fresh fruits, dry fruits, nutmeg (Jaiphal), mace (Javitri), wetdates and chicory seeds and inputs particularly fertilizers and machinery as and when asked to do so by the Government.

(c) Price Support Operations

NAFED is being appointed as the agency of the government to undertake support price purchases of commodities like groundnut since 1976-77, soyabean and mustard seed since 1977-78, gram, tur, moong and urad since 1978-79 and bajra, jowar, maize, barley, toria and sunflower seed since 1985-86. Government of India has

designated NAFED as the nodal agency for implementing the price support policy for oilseeds and coarse grains during Seventh Five Year Plan period (1985-90). NAFED has standing instructions to intervene in the market when ruling market price falls below the minimum support levels for oilseeds and pulse crops. Since 1991, NAFED has been designated as nodal agency for undertaking price support operations for oilseeds and pulses on a regular basis. Price support purchases of pulses and oilseeds are shown in table 5.2.

Table 5.2 Procurement of Oilseeds by NAFED under Price Support Scheme

Particulars	Year	Quantity Procured (Tonnes)
1. Groundnut Pods	1992-93	88
	1993-94	61
	2000-01	28858
	2001-02	163918
2. Mustard Seed	1984-85	76614
	1985-86	13445
	1988-89	69
	1992-93	2746
	1993-94	66
	2000-01	247956
	2001-02	329524
	2002-03	467629
3. Soyabean	1984-85	3709
	1985-86	62726
	1998-99	4480
	1999-00	494938
	2000-01	54754
4. Safflower Seed	1989-90	25
	1992-93	790
	1998-94	14925
	2000-01	6534

	2001-02	3201
	2002-03	2020
5. Sunflower Seed	1992-93	4430
	1993-94	15286
	1994-95	45
	1995-96	1196
	1997-98	80
	1999-00	47950
	2000-01	47950
	2000-01	19502
	2001-02	25
	2002-03	17
6. Copra	1989-90	2736
	1990-91	25099
	1994-95	61749
	1995-96	5619
	1996-97	485
	1998-99	1168
	1999-00	2955
	2000-01	235491
	2001-02	50300
	2002-03	5854

Source: Agricultural Statistics at a Glance, 2002 and 2003, Directorate of Economics and

Statistics, Ministry of Agriculture, Government of India, New Delhi.

Business in Oilseeds

Purchases

NAFED procured around 35044 MTs of various oilseeds and oils including Assorted Oils,Copra,Mustard Oil,Mustard Seed,Sunflower Seed and Sunflower Oil valued at Rs. 86.29 crores in outright account, as per details given below:

Purchase of Oil and Oilseeds by NAFED

[qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity(in MTs)	Value (Rs.in lakhs)
1	Assorted Oils	0.43	74.06
2	Copra	710.27	301.83
3	Mustard Oil	60.74	5.41
4	Mustard Seed	34131.66	8184.89
5	Sunflower Seed	79.46	21.97
6	Sunflower Oil	61.10	41.15
	Total	35043.66	8629.31

Sales

A total quantity of around 56293 MTs of various oilseeds valued at Rs. 155.10 crores was sold in outright account during the year 2008-2009. The details are given as below:

Sales of Oil and Oilseeds by NAFED

S.NO	Commodity	Quantity(in MTs)	Value(Rs.in lakhs)
1	Assorted Oils	0.27	80.53
2	Copra	381.29	154.24
3	G.N.Pods	5984.27	1508.21
4	Mustard Oil	133.12	11.98
5	Mustard Seed	45940.40	12806.52
6	Soyabean	3710.94	840.44
7	Sunflower Oil	142.68	107.99
	Total	56292.97	15509.91

Business in Pulses

Purchases

During the year 2008-09 NAFED purchased around 24423 MTs pulses viz. Gram, Masoor, Arhar, Moong, Urad,Rajmah,Moth and Peas,Assorted Pluses valued at Rs. 60.56 crores in its outright account.

The details are given below:

Purchase of Pulses by NAFED

[qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity(in MTs)	Value (Rs.in lakhs)
1	Gram	20162.61	4723.15
2	Masoor	701.58	223.25
3	Arhar	458.20	124.44
4	Moong	1093.06	321.23
5	Urad	24.96	8.33
6	Rajmah	11.08	4.29
7	Peas	475.37	99.45
8	Assorted Pulses	496.03	551.52
	Total	4422.89	6055.66

Sales

During the year 2008-09 a total quantity of around 45085 MTS of various pulses, such as, Gram, Masoor, Moong, Peas, Moong, Rajmah, Arhar, and Urad valued at Rs. 107.62 crores was sold in outright account as per details given below.

Sale of Pulses by NAFED

S.NO	Commodity	Quantity (in MTs)	Value (Rs.in lakhs)
1	Gram	28342.62	6423.11
2	Masoor	764.11	272.03
3	Moong	5722.47	1394.08
4	Peas	476.84	105.83
5	Rajmah	282.97	88.40
6	Moth	63.37	12.74
7	Arhar	4280.64	1118.17
8	Urad	3695.86	793.04
9	Assorted Pulses	1456.58	555.01
	Total	45085.46	10762.41

Business in Horticulture Products

Purchases

During the year 2007-08. NAFED purchased 11764 MTs of various horticultural commodities including Onion, Potato, Apple and fresh fruits & vegetables valued at Rs. 13.55 crores in outright account. The details of various horticultural commodities purchased are given below:

Purchase of Horticulture Commodities by NAFED

[qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity (in MTs)	Value (Rs.in lakhs)
	OUTRIGHT		
1	Onion	7407	773.40
2	Potato	2708	136.44
3	Apples	734	250.00
4	Ginger	80	17.70
5	Garlic	30	14.42
6	Fresh Fruits & Vegetables	805	162.96
	Total	11764	1354.92

Sales

A total quantity of 5686 MTs of various horticulture items including Onion, Potato and assorted fresh fruits & vegetables of the value of Rs. 6.06 crores was sold in outright account during the year as per details given below:

Sale of Horticultural Commodities by NAFED [qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity (in MTs)	Value (Rs.in lakhs)
OUTRIGHT			
1	Onion	1105	86.03
2	Potato	3391	235.40
3	Apples	289	83.00
4	Ginger	75	17.68
5	Garlic	30	15.26
6	Fresh Fruits & Veg.	796	168.22
	Total	5686	605.59

Food Grains Business

Purchases

During the year 2007-08. NAFED purchased 948572 MTs foodgrains, such as, Bajra, Guar, Jowar, Maize, Paddy, Rice and Wheat Barely valued at Rs.885.85 crores in its outright account besides procuring 24930 MTs Rice valued at Rs. 33.38 crores on Tie-up basis.The details are given as under:

Purchase of Food Grains by NAFED

S.NO	Commodity	Quantity (in MTs)	Value (Rs.in lakhs)
OUTRIGHT			
1	Bajra	1000	60.58
2	Guar	2592	419.70
3	Jowar	7105	465.09
4	Maize	32160	2117.20
5	Paddy	116025	9325.82
6	Rice	485519	43997.85
7	Wheat	300614	31902.49
8	Barley	3557	295.91
	Sub Total	948572	88584.64
TIE-UP			
1	Rice	24930	3337.88
	Total	973502	91922.52

Sales

During the year 2007-08, NAFED sold 849203 MTs foodgrains, such as Bajra, Guar, Jowar, Maize, Paddy, Rice and Wheat valued at Rs.954.96 crores in outright account.

Sale of Food Grains by NAFED

S.NO	Commodity	Quantity(in MTs)	Value(Rs.in lakhs)
OUTRIGHT			
1	Bajra	117	7.50
2	Guar	2283	379.69
3	Jowar	2515	179.46
4	Maize	45771	3355.48

5	Paddy	66921	8546.43
6	Rice	447057	50729.50
7	Wheat	280953	215.00
8	Barley	3586	333.18
Sub Total		849203	95495.52

Business in Spices

Purchases

During the year 2008-09,NAFED procured around 4511 MTs of various spices viz.Turmeric, Black Pepper,Red Chillies, Methiseed, Dry Ginger, Cloves, Cardamom(small) etc. valued at Rs.58.22 crores in its outright account.The details are given below:

Purchase of Spices by NAFED

[qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity (in MTs)	Value(Rs.in lakhs)
1	Turmeric	189.90	73.79
2	Black Pepper	4023.10	5570.70
3	Cardamom Small	0.50	2.68
4	Assorted Spices	0.09	50.55
5	Cloves	0.15	0.55
6	Dry Ginger	72.06	61.91
7	Methi Seed	225.60	61.56
	Total	4511.40	5821.74

Sales

A total quantity of around 5048 MTs of various spices, such as,Turmeric,Black Pepper,Red chillies,Methiseed,dry ginger, and Cardamom(small) valued Rs.55.84 crores was sold in outright account during the year as per details given below:

Sale of Spices by NAFED

[qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity(in MTs)	Value(Rs.in lakhs)
1	Tumeric	203.80	89.23
2	Red chillies	533.08	231.35

3	Black Pepper	4006.65	5058.04
4	Cardamom Small	0.35	1.71
5	Assorted Spices	0.09	55.15
6	Dry Ginger	77.02	75.64
7	Cloves -	0.01	Neg
8	Methi Seed	227.39	72.29
Total	5048.38	5583.78	

Miscellaneous Business

Purchases

NAFED procured around 28852 MTs of various miscellaneous agricultural commodities valued at Rs. 105.34 crores in outright account as per details given below:

Purchase of Miscellaneous commodities by NAFED

[qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity(in MTs)	Value (Rs.in lakhs)
1	Rubber	959.00	690.28
2	Tea	173.42	159.44
3	Misc. Items	9818.20	671.18
4	Atta	-	45.46
5	Sugar	309.41	52.54
6	Palm Oil	16507.58	8853.48
7	Salt	293.00	13.32
8	Barrel	791.60	48.73
	Total	28852.21	10534.43

Sales

A quantity of 28498 MTs of various miscellaneous agricultural commodities valuing Rs.60.26 crores was sold during the year 2008-09 in outright account as per details given below.

Sale of Miscellaneous Commodities by NAFED

[qty. in mts/value in rs.lakhs]

S.NO	Commodity	Quantity(in MTs)	Value (Rs.in lakhs)
1	Rubber	824.00	787.13

2	Salt	293.00	13.45
3	Tea	180.63	186.46
4	Misc. Items	9769.88	805.41
5	Atta	-	47.72
6	Sugar	183.68	44.26
7	Palm Oil	16368.33	4053.64
8	Psyllium	86.82	37.98
9	Barrel	791.60	49.94
	Total	28497.94	6025.99

(d) Production and Marketing of Agricultural Inputs

NAFED helps the farmers by supplying them agricultural machinery like harvesting combines, tractors, spare parts and such other inputs as bio-fertilizers. NAFED also imports some of the machines and spare parts from abroad to ensure timely availability of genuine spare parts at reasonable prices. The technical know-how to operate and maintain the machines is also provided to the farmers. The NAFED through its service centres also sells farm tools, agricultural implements and spare parts produced by Krishi Yantra Udyog, Bhiwadi in Rajasthan.

Bio-fertilizers are gaining importance for increasing yields of pulses and oilseeds crops. The NAFED has set up a unit for production of rhizobium culture at Indore (Madhya Pradesh) in 1985 with a capacity to produce biofertilizers for 12 lakhs hectares a year. NAFED maintains contact with the input supplying institutions such as the National Seeds Corporation and the Fertilizer Corporation of India.

(e) Promotional Activities

NAFED maintains expert staff which conducts market studies, collects data and circulates the results among the members. Other promotional activities of NAFED are intensive development of selected marketing societies as pilot centres for co-operative marketing of agricultural produce in each state; improvement in market intelligence services for co-operative marketing societies; conduct of market surveys; training of market personnel; promotion of market regulations and development of infrastructures.

(f) Developing Co-operative Marketing of Tribal Produce

A separate cell to develop the marketing of produce of the tribal areas (minor forest products) having economic value has been set up with the assistance of NAFED.

NAFED arranges market intelligence, establishes better system for auction of tribal produce and develops markets for other commodities like chilgoza, gum, karya etc. Keeping in view the importance of marketing of tribal produce, a separate Tribal Co-operative Marketing Development Federation (TRIFED) has been set up.

(g) Setting of Scientific Storage System

NAFED has set up a cold storage along with an ice factory and a warehouse in Delhi. NAFED has also made pioneering effort in finding ways of developing modern storages. It has set up an onion warehousing complex at Nagapattanam.

(h) Processing of Fruits, Vegetables and Others

NAFED has set up a multi-commodity fruit and vegetables processing unit at Delhi and at Vellore (Tamil Nadu). The basic purpose is to develop the processing industry in co-operative sector in a major way so as to make fruits and vegetable marketing and processing to the advantage of the farmers. NAFED also manufactures jute goods in joint venture with Konark Jute Limited – promoted by Industrial Development Corporation of Orissa.

Business Highlights of NAFED

NAFED achieved a turnover of Rs. 4706.65 crores as against the turnover of Rs. 6381.38 crores achieved during the last year, a decline of approx.26.24% mainly due to reduced PSS operations And negligible activities in Tie-up business. It incurred a net loss of Rs.56.69 crores due to huge interest liability on account of outstanding loans due to Tie-Up business defaulters. The share capital with NAFED was Rs. 1097.33 lakhs upto 31.3.2008. Membership of the Federation increased from 824 to 832 upto 31.3.2008. As a Central Nodal Agency of the Government of India, NAFED procured various commodities such as, Copra, Mustard seed, Sesamum and Safflower seed of the value of Rs. 124.35 crores under Price Support Scheme during 2007-08. NAFED continued to be the nodal agency of the Govt. of India for implementation of Market Intervention Scheme for commodities not covered under Public Support Syatem. NAFED continued to be one of the canalizing and monitoring agencies for export of Onion. NAFED Continued to enjoy the status of "Three Star Export House" as per certificate of recognition issued by the Ministry of Commerce, Government of India. NAFED was allowed to import Pulses by Government of India under zero percent duty with reimbursement of losses to the extent of 15%. Under the scheme, NAFED imported a quantity of 234272 MTs valuing RS.412.17 crores of different Pulses namely Urad, Moong, Toor, Yellow peas etc. NAFED imported 92500 MTs Crude palm Oil and 9500

MTs Soya Degum Oil in its commercial account to improve availability of edible oil in the country to stabilize domestic prices. NAFED was appointed as one of the agencies for procurement of Paddy directly from the farmers under the de-centralized Scheme of State Gov. NAFED procured 796817 MTs of Paddy valuing Rs.573.55 crores during 2007-08. A quantity of 2,00,077 MTs of Wheat valuing Rs.170.37 crores was purchased by NAFED on behalf of FCI. The exports of NAFED during the year were of the order of Rs.542.30 crores which include exports of different agricultural commodities in its outright account besides Onions through its Associate Shippers. The agricultural commodities exported were Onion (Rs.504.20 crores), Potato (Rs.0.05 crores), Rice (Rs. 2.90 crores), Turmeric (Rs. 0.18 crores), Red Chilies (Rs. 1.57 crores) mustard seed & mustard oil (Rs.0.75 crores), Maize (Rs2.00 crores), and Wheat(Rs.2.33 crores). Rice valuing Rs.27.94 crores was also exported in Tie-up account. In its commercial operations, NAFED achieved a turnover of Rs.4164.35 crores in domestic trading of various agricultural commodities, which also include PSS/Tie-up business. NAFED distributed chemical Fertilizers valuing over Rs. 88.58 crores in the states of Bihar, UP, Maharashtra, Chhattisgarh, MP, Jharkhand, North Eastern and Southern States. It also distributed Seeds of various crops valuing over Rs. 35.13 crores to State Seed Corporations and State Agricultural Departments as also farmers through network of marketing societies. Special thrust was given to promote marketing of consumer items all over India. NAFED marketed consumer products like edible oils, processed foods, spices, tea, rice, pulses etc. valued around Rs. 36.15 crores in the directly to the brand name of NAFED and marketed products of other reputed companies. To assist poultry farmers and consumers, NAFED procured and marketed eggs valued at Rs. 1.72 crores. As the Corporate Agent of IFFCO-TOKIO General insurance (ITGI), NAFED continued in the field of non-life insurance and undertook a business of Rs. 6.64 crores. NAFED handled jute products valued at Rs.120.26 crores on agency/consignment basis in domestic trade. NAFED completed construction works of Warehouse of 10,000 MT capacity each at Dewas, (MP) & Sriganganagar (Rajasthan). Renovation & repair works of warehouse at Vashi, Navi Mumbai was also started. Total warehousing capacity of NAFED is approx. 51900 MTs, in addition to 4400 MTs capacity for storage of Onion. NAFED is also constructing two Multi-Commodities pack houses of 500 MT capacities each with ancillary units for sorting & grading (through 11 Collection Centers) pre-cooling etc. At Umranala and Sausar in Chindwara (Madhya Pradesh). NAFED is one of promoter members of National Multi Commodity Exchange and participated in the

trading activities at NMCE, MCX and NCDEX. The futures trading activities are being undertaken in almost all agricultural commodities viz. Rubber, Pepper, Turmeric, Chilli, Soya bean, Mustard Seed, Mentha, Potato, Jeera etc. Achieved turnover of Rs.319 crores in Futures Trading business. NAFED inducted fresh M.B.A. Graduates as Management Trainees selected from Vaikunth Mehta National Institute of Cooperative Management (VAMNICOM), Pune, AMITY, Noida and RICM, Bangalore to professionalize the managerial cadre.

Other National Cooperative Organizations

National Cooperative Development Corporation (NCDC)

The National Cooperative Development Corporation (NCDC) was set up in March, 1963 under an Act of Parliament for promoting, guiding and supporting rural economic activities on cooperative principles. The corporation focuses on programmes of promoting, strengthening and developing farmers' cooperatives for marketing, processing and storage of agricultural products as also for supply of agricultural inputs and essential consumer goods in rural areas. It tries to equip cooperatives with facilities for promoting income-generating activities including poultry, fishery, handlooms and minor forest products. The corporation supplements the efforts of the state governments in promoting cooperatives.

The NCDC provides financial assistance to cooperative societies through or on the guarantee of the state governments. NCDC provides financial assistance to large number of cooperatives and their activities. This includes:

(a) State level cooperative marketing/commodity marketing federations for margin money to raise working capital from banks or increasing marketing and distribution activities.

(b) Agro-based processing units including large size oil complexes and small and medium size units for foodgrains, plantation, commercial and horticulture crops;

(c) Viable or potentially viable primary agricultural cooperative societies, large size agricultural multipurpose cooperative societies (LAMPS), farmers service societies (FSS), commodity cooperatives and processing cooperatives for construction of godowns;

(d) Cooperatives for the establishment of new cold stores and expansion of the existing units as well as for setting up of ice plants;

(e) State governments to supplement their resources for share capital participation in the new cooperatives related to processing, repair and custom hiring services;

(f) Cooperatives dealing in fruits and vegetables for development of marketing, establishment of processing units, purchase of transport vehicles, construction of storage sheds and retailing;

(g) Fishery cooperatives for development of inland and marine fisheries;

(h) Cooperatives for dairy development in areas which are outside the operation flood programmes of NDDB;

(i) Integrated poultry projects including poultry sheds, feed mix units and hatcheries; and

(j) Scheduled caste cooperatives for supply of notified commodities, strengthening of share capital base of tribal development cooperative federations, cooperative-marketing societies in hilly areas, rural consumer cooperatives and student cooperative stores.

NCDC has not only provided financial support to the cooperatives but also provided technical guidance to them. The promotional and developmental role of NCDC has led to continuous expansion and diversification of cooperative programmes under its purview.

Tribal Cooperative Marketing Federation (TRIFED)

The Tribal Cooperative Marketing Federation (TRIFED) was established in 1987 to develop the system of marketing of forest products produced by the tribals in the country. TRIFED arranges marketing and export of minor forest products produced by the tribals in the tribal dominated areas and protects the tribes from exploitation by the private traders because of poor demand and production in small lots.

Co-operative Marketing and Processing of Milk and Oilseeds

Milk

With a view to providing marketing support to the milk producers, a sound network of dairy cooperatives has taken shape in the country which has been instrumental in what is called the 'White Revolution' in the country. The network consists of milk producers cooperative societies at the Village level, District Milk Co-operative Unions at the district level, State Co-operative Dairy Federations at the state level and National Dairy Development Board (NDDB) at the national level. Apart from providing market support to the producers in rural areas, this network has been instrumental in supplying liquid milk and dairy products to the urban consumers at reasonable prices.

NDDB

The National Dairy Development Board was created to promote, finance and support producer-owned and controlled organisations. NDDB's programmes and activities seek to strengthen farmer cooperatives and support national policies that are favourable to the growth of such institutions. Fundamental to NDDB's efforts are cooperative principles and cooperative strategies.

Philosophy of NDDB

- Cooperation is the preferred form of enterprise, giving people control over the resources they create through democratic self-governance.
- Self-reliance is attained when people work together, have a financial stake, and both enjoy the autonomy and accept the account ability for building and managing their own institutions.
- Progressive evolution of the society is possible only when development is directed by those whom it seeks to benefit. In particular, women and the less privileged must be involved in cooperative management and decision-making.
- Technological innovation and the constant search for better ways to achieve our objectives is the best way to retain our leading position in a dynamic market.
- While our methods change to reflect changing conditions, our purpose and values must remain constant.

The National Dairy Development Board (NDDB) was founded in 1965 to replace exploitation with empowerment, tradition with modernity, stagnation with growth, transforming dairying into an instrument for the development of India's rural people.

NDDB began its operations with the mission of making dairying a vehicle to a better future for millions of grassroots milk producers. The mission achieved thrust and direction with the launching of "Operation Flood", a programme extending over 26 years and which used World Bank loan to finance India's emergence as the world's largest milk producing nation. Operation Flood's third phase was completed in 1996 and has to its credit a number of significant achievements. As on March 2009, India's 1,33,349 village dairy cooperatives federated into 177 milk unions and 15 federations procured on an average 25.1 million litres of milk every day. 13.9 million farmers are presently members of village dairy cooperatives.

Since its inception, the Dairy Board has planned and spearheaded India's dairy programmes by placing dairy development in the hands of milk producers and the professionals they employ to manage their cooperatives. In addition, NDDB also

promotes other commodity-based cooperatives, allied industries and veterinary biologicals on an intensive and nation-wide basis.

Constitution

The National Dairy Development Board has been constituted as a body corporate and declared an institution of national importance by an Act of India's Parliament. The National Dairy Development Board -- initially registered as a society under the Societies Act 1860 -- was merged with the erstwhile Indian Dairy Corporation, a company formed and registered under the Companies Act 1956, by an Act of India's Parliament - the NDDB Act 1987 (37 of 1987), with effect from 12 October, 1987. The new body corporate was declared an institution of national importance by the Act. The general superintendence, direction, control and management of NDDB's affairs and business vests with the Board of Directors.

Office Network

Head Office PB No. 40, Anand 388 001 Telephone: (02692) 260148/260149/260160 Fax: (02692) 260157 email: anand@nddb.coop Telegram: DAIRYBOARD

Regional Offices

PB No. 9506 VIII Block, 80 Feet Road, Koramangala **Bangalore** 560 095 Telephone: (080) 25711391/25711392 Fax: (080) 25711168 email: bangalore@nddb.coop

3rd Floor, SCO-230-231 Sector 34-A **Chandigarh** 160 022 Telephone: (0172) 5071283/5001282 Fax: (0172) 5071282 email: chandigarh@nddb.coop

2nd Floor, Vivekanand Corner Club Road, Desai Cross **Hubli** 580 020 Telephone: (0836) 2257237/2257238 Fax: (0836) 2257236 email: hubli@nddb.coop

38, Sunder Nagar Girdhar Marg, Malviya Nagar **Jaipur** 302 017 Telephone: (0141) 2550191/2723765 Fax: (0141) 2550086 email: jaipur@nddb.coop

DK Block, Sector II Salt Lake City **Kolkata** 700 091 Telephone: (033) 23591885/23591886 Fax: (033) 23591883 email: kolkata@nddb.coop

1st Floor, IPL Building 3, Gokhale Marg **Lucknow** 226 001 Telephone: (0522) 4006952/4006953 Fax: (0522) 4006834 email: lucknow@nddb.coop

PB No. 9074 Western Express Highway Goregaon (East) **Mumbai** 400 063 Telephone: (022) 26856675/26856678 Fax: (022) 26856122 email: mumbai@nddb.coop

Plot No. A-3 Sector-1 **Noida** 201 301 Telephone: (0120) 4262336/4262337 Fax: (0120) 4262347 email: noida@nddb.coop

Sumati Place 4th Floor, Boring Road, **Patna** – 800001 Telephone: (0612) 2525319, 2523288 Fax: (0612)-2526561 email: patna@nddb.coop

India Tower Edapazhinji Junction Vazhuthacaud **Thiruvananthapuram** 695 014 Telephone: (0471) 2321355/6572895 Fax: (0471) 2335543 email: trivandrum@nddb.coop

59-14-8, Silpa Arcade Opp. Maris Stella College **Vijayawada** 520 008 Telephone: (0866) 2492398/2473764 Fax: (0866) 2492400 email: vijayawada@nddb.coop

The Operation Flood (OF) programme initiated by NDDB in 1970 was a planned attempt to revive India's Dairy Industry from a premature stagnation. The OF programme not only propelled the growth of dairy development in India, it also helped India become the world's largest milk producer.

OF enhanced the incomes and quality of life for millions of India's dairy farmers, most of them poor and many of them women. It has become India's largest Dairy Development Programme.

OF (1970-1996) created a strong foundation to transform India's dairy sector into a vibrant business activity. It paved the way to take up new initiatives and create new conditions to firm up India's world leadership in milk production. The new challenge for the Dairy Industry was to explore ways to emerge stronger using the network created under OF. The response is Perspective 2010, a plan that attempts to take the dairy cooperative movement to its highest potential.

Perspective 2010 focuses on four key areas. These include Strengthening Cooperative Business, Production Enhancement, Assuring Quality and creating a National Information Network. The State Milk Marketing Federations and the Milk Producers' Cooperative Unions, the architects and key beneficiaries have identified the thrust areas. The plan is designed keeping at helm the benefit to farmers at large. NDDB facilitated the planning process and will provide technical support and need-based finance for implementing Perspective 2010.

Perspective 2010 Goals

Increase liquid milk procurement by cooperatives to 33 per cent (488 lakh kilograms per day) of the marketable surplus in Operation Flood areas, constituting 80 per cent of the national milk produced (i.e. Quadruple liquid milk procurement by year 2010). Increase liquid milk sales to 365 lakh kilograms per day, more than 60 per cent of the market shares in metros, and on average of close to 50 per cent in the Class I cities served by cooperatives (i.e. Treble fluid milk marketing by year 2010)

Strategy

A systemic and planned strategy for the identified thrust areas has been formulated to meet the above goals

Strengthening Cooperative Business

Action Plan

- Institution Building Development
- Orientation/induction programmes for farmers
- Training of Management Committee Members and Society Secretaries in preparing business plans and its implementation
- Reorientation of union staff to new roles identified to meet Perspective 2010 goals
- Strong Financial Base
- Increase in dairy cooperative owned funds
- Increase in cooperative contribution to union share capital
- Expanding Marketing

- Assistance in planning, implementation and monitoring of business plans of milk unions geared to meet the targets envisioned in Perspective 2010
- Offering financial and technical help to milk unions and federations in areas such as sales promotion, consumer education, distribution infrastructure development etc.

- Standardisation of artwork, colour, logo and retail outlet design across regional cooperative brands with a view to promoting better recall by consumers under a common mnemonic umbrella
- Introduction and improvement of marketing systems and processes necessary to perform better in a competitive marketplace
- Training and development of management and staff of milk unions and federations

Legislative Framework

Supporting efforts aimed at enactment of progressive legislative framework for the cooperatives at the State and the Centre

Encouraging and assisting dairy cooperatives in incorporation under progressive and enabling laws

Women's Participation

Increasing women membership in dairy cooperatives to 50 per cent recognising the potential of this segment as decision makers having practical knowledge about animal husbandry practices

Undertaking measures for significantly improving women's participation in the governance of dairy cooperatives at all levels

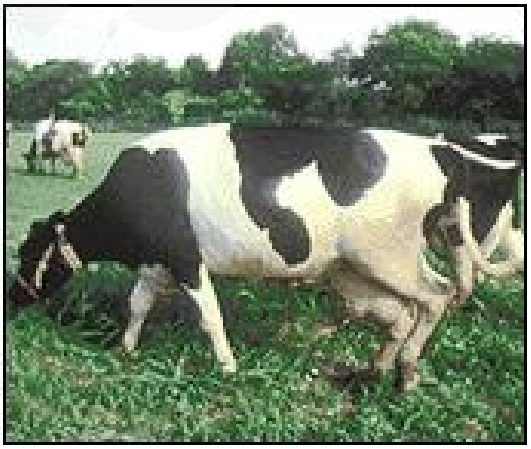
Promoting organisation of women's thrift and credit groups/cooperatives

Production Enhancement

Action Plan

Breeding

- Increase productivity of cows and buffaloes
- Increase percentage of animals in milk
- Expand AI coverage



- Increase inseminations
- Reduce AI per conception
- Take up genetic improvement programmes in selected milksheds to supply semen of evaluated bulls to all milksheds
- Animal Health and Veterinary Services
- Create first-aid facilities in DCSs
- Increase vaccination for HS and BQ
- Increase de-worming of animals
- Promote mastitis control
- Undertake Brucellosis control activities in affected areas
- Promote use of GIS in AI and veterinary health services
- Create Disease Free Zones by
    - Undertaking mass vaccinations
    - Ear-tagging and passbooks
    - Animal movement management
    - Effective outbreak management
    - Sero-monitoring
- Disease control in Animals
    - Enactment of national legislation for Prevention of Infectious and Contagious Diseases in Animals

- Animal Nutrition
- Raise installed cattle feed plant capacity

- Raise cattle feed plant utilisation capacity
- Increase and strengthen quality control laboratories
- Increase number of mineral mixture plant
- Increase production and utilisation quality fodder seeds
- Husbandry Extension
- Enable dairy cooperatives to operate as full-service extension centres for their members by providing
    - Introduction and support of technology
    - Link actively with union's technical experts

Strategy

Identify and address quality related problems at every stage from the producer at the village cooperative, to the dairy plant and the process of final delivery to the consumer

Facilitate improvement of hygiene, sanitation, food safety and operating efficiency in the dairy plants and sensitise dairy personnel to product quality aspects as per international standards

Assuring Quality

Action Plan

- Phytosanitary, bacteriological and organoleptic quality at all stages
- Development of a comprehensive database on raw milk quality at every stage from producer to consumer
- Identification of key intervention technologies for each stage
- Orientation of Union technical inputs and other support services to emphasise compliance to national and international quality standards
- Encouragement of quality incentives supported by educational programmes for Dairy Cooperative Society staff, transporters and farmer producers
- Establishment of village-level chilling as first stage in cold chain reaching to the plant and on to the consumer
- Facilitating dairy cooperatives in ISO-9000-2000 (Quality Management Systems), ISO HACCP (Safety Management Systems) certification and maintain the required plant conditions under the accreditation on a sustainable basis

Information and Policy Research

Strategy

- Link large cooperatives, Unions, Federations and NDDB in a national network that collects, adds value and disseminates information
- Ensure availability of analytical information for Policy Planning and Decision Support
- Action Plan
- Integrated Dairy Industry Information Service
- Facilitate decision-making at various levels in cooperative institutions with the help of an extensive on-line computer network that analyses relevant data obtained from :
    - Village Dairy Cooperative Societies

- District Milk Producers' Unions
- State Milk Marketing Federations
- NDDB
- Research Institutions and others

- National Database
- Generate data on following :
  - Milk supply (producer, animal and village data)
  - Milk and milk product demand (consumer and urban data)
  - Performance data (societies, unions and federations)
  - Secondary data (domestic and international)
- Geographical Information System
- Monitor following field activities :
  - Milk procurement
  - Veterinary health care
  - Artificial Insemination
  - Society information
- Policy Research
- Take up problem specific and area specific need-based special studies for policy support

- Conduct regular field studies concerning business interest

Dairy Cooperatives account for the major share of processed liquid milk marketed in the country. Milk is processed and marketed by 170 Milk Producers' Cooperative Unions, which federate into 15 State Cooperative Milk Marketing Federations.

The Dairy Board's programmes and activities seek to strengthen the functioning of Dairy Cooperatives, as producer-owned and controlled organisations. NDDB supports the development of dairy cooperatives by providing them financial assistance and technical expertise, ensuring a better future for India's farmers. Over the years, brands created by cooperatives have become synonymous with quality and value. Brands like Amul (GCMMF), Vijaya (AP), Verka (Punjab), Saras (Rajasthan). Nandini (Karnataka), Milma (Kerala) and Gokul (Kolhapur) are among those that have earned customer confidence.

Some of the major Dairy Cooperative Federations include:

Andhra Pradesh Dairy Development Cooperative Federation Ltd (APDDCF)
Bihar State Cooperative Milk Producers' Federation Ltd (COMPFED)
Gujarat Cooperative Milk Marketing Federation Ltd (GCMMF)
Haryana Dairy Development Cooperative Federation Ltd. (HDDCF)
Himachal Pradesh State Cooperative Milk Producers' Federation Ltd (HPSCMPF)
Karnataka Cooperative Milk Producers' Federation Ltd (KMF)
Kerala State Cooperative Milk Marketing Federation Ltd (KCMMF)
Madhya Pradesh State Cooperative Dairy Federation Ltd (MPCDF)
Maharashtra Rajya Sahakari Maryadit Dugdh Mahasangh (Mahasangh)
Orissa State Cooperative Milk Producers' Federation Ltd (OMFED)
Pradeshik Cooperative Dairy Federation Ltd (UP) (PCDF)
Punjab State Cooperative Milk Producers' Federation Ltd (MILKFED)
Rajasthan Cooperative Dairy Federation Ltd (RCDF)
Tamilnadu Cooperative Milk Producers' Federation Ltd (TCMPF)
West Bengal Cooperative Milk Producers' Federation Ltd. (WBCMPF)

Oilseeds

Recognising the success of the 'Amul Pattern' of dairy co-operatives network, the concept has been extended to the oilseeds sector. Oilseeds growers co-operative societies at the village level and State Co-operative Oilseeds Growers Federations have been organized in many States. The nomenclature differs from state to state.

In Rajasthan, the State level Co-operative Oilseeds Growers Federation, known as Tilam Sangh was set up in July, 1990. The main objectives of the Federation/Sangh are:

(i) To organize the oilseeds growers at grass root level;

(ii) To augment the production and productivity of oilseeds by providing package of practices;

(iii) To procure the oilseeds of farmers at their doorstep at premium price;

(iv) To eliminate the intermediaries and to retrieve the oilseed growers from their clutches;

(v) To establish oilseed processing units; and

(vi) To undertake seed multiplication programme to provide quality seeds to the member producers.

Tilam Sangh has established eight plants for processing of mustard in different mustard growing areas with a total processing capacity of 1.41 lakh tones of mustard. These plants are located at Kota, Fatehnagar (Udaipur); Bikaner, Jalore, Mertacity (Nagaur); Jhunjunu, Sriganganagar and Gangapurcity (Sawai Madhopur). At present, 967 oilseeds growers co-operative societies are working in different mustard project areas under Tilam Sangh with a total membership of over one lakh members. In addition to mustard plants, Tilam Sangh has also established soyabean and groundnut processing plants. The Tilam Sangh purchases oilseeds from the farmers through the co-operative societies at fair prices and makes available edible oils to the consumers at reasonable prices. With a view to making available improved seeds of oilseed crops, a farm of 40 hectares has also been transferred by the State Government to the Tilam Sangh.

The popularity of edible oils produced by the Tilam Sangh has been increasing continuously among the consumers. Presently, Tilam Sangh is supplying 'Tilam brand' edible oils in 1, 2, 5 and 15 litres/kgs packing to the consumers.

State Level Cooperative Marketing Organizations

(i) RAJFED : RAJFED in Rajasthan, a state level co-operative marketing organization, has been playing a very important role in agriculture marketing. The Rajasthan Co-operative Marketing Federation (RAJFED) was established on November 26, 1957. It is an apex body at the state level. The main aim of establishing RAJFED is to co-operatively handle purchase and sale of agricultural commodities for the benefit of farmers as well as consumers. Following are the main functions of RAJFED:

(a) Purchase and sale of agricultural commodities

RAJFED purchases the agricultural produce from markets by an open auction method and thus creates condition of competition. Farmer-producers get fair prices of the produce. The commodities so purchased by RAJFED are sold later on when prices are high. In its marketing operations, the RAJFED collaborates with NAFED, Tilham Sangh and other co-operatives. The primary cooperative marketing societies act as commission agents for making the purchases of agricultural commodities on behalf of the RAJFED. RAJFED pays commission to these societies for this work.

(b) Production and Supply of Agricultural Inputs

RAJFED is also engaged in the supply of agricultural inputs such as fertilizers (DAP, Urea, CAN), improved seeds, pesticides, plant protection implements and gypsum.

(c) Production of Animal Feed

RAJFED has established a unit of production of animal feed at Jaipur with a capacity of 12,000 tonnes per annum. The animal feed is distributed through various units of cooperative societies, government departments and private dealers.

(d) Production of Isabgol Bhushi

RAJFED has established a Isabgol Bhushi production plant at Abu Road in 1982 with the help of NAFED with a capacity of 450 tonnes per annum.

(e) RAJFED has also established a cold storage and ice-plant at Jaipur.

(f) RAJFED works as an important state agency for price support operations whenever need arises.

(ii) MARKFED – MARKFED is the state level organization in the state of Punjab. It is a federation of marketing cooperative societies. Its main objective is to help the farmers to secure better prices for their produce by taking care of the market needs and providing agricultural inputs. To achieve this objective, MARKFED's present activity includes sale of farm inputs (fertilizers, seeds and pesticides); maintenance of godowns and procurement of agricultural commodities through its member societies. Markfed has also entered the export business and helping establish contract-farming arrangements in the state.

(iii) Other State Federations – Almost all states have state level federations of cooperative marketing societies. These may be general purpose federations or commodity specific federations. Some examples of state level federations are State

Dairy Cooperative Federations, State Oilseed Federations and State Cotton Federations.

TANFED

The Tamil Nadu Cooperative Marketing Federation Ltd., popularly known as "TANFED" commenced its business on 20.2.1959. The area of operation is whole of Tamil Nadu except composite Thanjavur and Nilgiris Districts. From the inception (i.e.1959) till June 1976, there was elected board of Management. Subsequently, from November 1998 to 25.6.2001 TANFED functioned under the elected Board of Management. Now TANFED is functioning under the control of Special Officer.

Membership

The Members are:-

(a) Primary Cooperative Marketing Societies working at taluk levels (except those PCMS in the districts of Thanjavur, Thiruvarur and Nagapattinam Districts which come under the purview of Thanjavur Cooperative Marketing Federation Limited, Thiruvarur and (ii) Nilgiris District).

(b) Thanjavur Cooperative Marketing Federation Limited, Tiruvarur.

(c) Tamil Nadu Warehousing Corporation,

(d) Government of Tamil Nadu.

Authorised and paid up share capital

The authorised share capital is Rs.5 crores which is made up of one lakh shares at rupees five hundred each. The admission fee is Rs.50/-. Details of share capital as on 31.3.2008 are furnished in Table 5.3.

Table 5.3 Authorised and paid up share capital of TANFED

(Rs. in lakhs)

S.No.	Name of the Member	No.of shares	Share Capital
(1)	Co-operative Marketing Societies	109	79.94
(2)	Thanjavur Co-operative Marketing Federation	1	0.10
(3)	Tamil Nadu Warehousing Corporation	1	0.10
(4)	Government of Tamil Nadu	1	118.17
		112	198.31

Organisation

From the inception till June 1976, there was elected board of Management.

From June 1976 to November 1998 managed by the Special Officers.

From November 1998 to 25.6.2001, functioned under the elected Board of Management.

Subsequently, the Board was superseded by the Government of Tamil Nadu with effect from 26.5.2001 and thereafter, the TANFED is functioning under the control of Special Officer in the cadre of Additional Registrar of Cooperative Societies. Organisational Setup

The Head Office consists of functional divisions such as Administration, Accounts, Internal audit, Fertilizers, Seeds and Pesticides, Agricultural Marketing and Civil Engineering.

TANFED HEAD OFFICE AT CHENNAI

Each division is managed by General Managers who are drawn from Tamil Nadu Government in the cadre of Joint Registrar of Cooperative Societies and Deputy Registrar of Cooperative Societies. Two General Managers in the cadre of Joint Registrars are in charge of Inputs and Finance, Marketing and Estate. In addition, a Secretary is in charge of Administration and Board functions. At district level there are 18 Regional Offices in Tamil Nadu State. As on 31.5.2010, the staff strength is 224 (exclusive of four persons deputed from the Government).

Functions and Objectives

1. To identify the agricultural input requirements of the farmers and arrange for storage and distribution of Fertilisers, Seeds, Pesticides and Agricultural Implements through Co-operative outlets.
2. To provide market support to the affiliated member Co-operative Marketing Societies in procuring, storing and marketing of agricultural commodities.
3. To provide storage facilities of specialized nature of perishable agricultural commodities and agro-based products by maintaining cold storage plants.
4. To undertake manufacture of agricultural inputs such as granulated fertilisers, manure mixture and quality seeds.
5. To undertake the distribution of kerosene.

Activities

A) Distribution of Fertilisers

The crop loan issued by Cooperative banks consists of cash portion and kind portion. The kind portion includes Fertilisers, Pesticides, Seeds and Agricultural Implements which are being supplied by Tamil Nadu Cooperative Marketing Federation through Primary Agricultural Cooperative Banks. TANFED purchase Chemical Fertilisers from the leading manufacturers like M/s.IFFCO, IPL, Coromandal, KRIBHCO, FACT, RCF, GNFC, SPIC, etc. and distributing through Primary Agricultural Cooperative Banks.

Details of Chemical Fertilisers distributed during the last 5 years are as follows :

Tabe 5.4

Chemical Fertilizers Distributed by TANFED

Year	Quantity (Mts)	Value (Rs. in crores)
2003 - 2004	78,597	48.78
2004 - 2005	1,46,765	90.10
2005 - 2006	1,68,310	105.80
2006 – 2007	2,18,077	141.07
2007 – 2008	2,93,849	207.14
2008 – 2009	8,83,144	606.64
2009 – 2010	8,21,120	569.03
2010-2011 (Upto31.5.2010)	81,094	56.48

TANFED has cash sales of fertilisers since it started The farmers get fertilisers at lesser price than the market price under this scheme.

B) **MANUFACTURE OF FERTILISERS**

Pamani Fertilizer Plant at Mannargudi

TANFED is undertaking manufacture of its own granulated mixtures of Pamani 17:17:17 fertilisers with right mix up of NPK with special ingredient, ie., neem cake.

This product is very popular among the farmers in Tamil Nadu. This Plant was commissioned in April 1971 with the cost of Rs.110/- lakhs with an annual production capacity of 30,000 Tonnes. It is situated at Pamani Village, Mannargudi, Tiruvarur District. Details of production and sale of Pamani NPK 17:17:17 for the last 5 years are given below in Table 5.5.

Table 5.5

Production and Sale of Pamani NPK 17:17:17 Fertilizer by TANFED

Year	Production		Sales	
	Qty.in MTs.	Value (Rs.in Lakhs)	Qty.in MTs.	Value (Rs.in Lakhs)
2003-04	1023	166.10	3421	278.71
2004-05	5391	402.45	6279	513.82
2005-06	16188	1138.47	15186	1244.48
2006-07	18650	1303.95	18099	1492.32
2007-08	18711	1338.98	20322	1649.41
2008-09	17895	882.85	12039	1004.65

2009-10	14813	1099.42	14248	1189.00
2010 – 2011 (Upto 31.5.2010)	675	55.82	826	75.17

Pamani Fertilisers are sold through PACBs. In addition, Tamil Nadu Government has permitted TANFED to appoint private dealers, to sell the Pamani 17:17:17 from Dec.2005 onwards. TANFED has proposed to increase its production from 2 shifts to 3 shifts at the Pamani Fertiliser Plant.

C) TANFED FERTILISER MIXTURES

At present Fertiliser mixtures are produced in Trichy, Madurai and Vellore. Details of production and sale of Mixtures for the last 5 years are as given in Table 5.6.

Table 5.6

Production and Sale of Fertilizer Mixtures by TANFED

Year	Production		Sales	
	Qty.in MTs.	Value (Rs.in Lakhs)	Qty.in MTs.	Value (Rs.in Lakhs)
2003-04	1062	35.71	1021	4020
2004-05	1933	62.08	1987	7845
2005-06	5545	188.59	5474	228.30
2006-07	8839	304.69	8810	375.20
2007-08	11157	385.57	10961	476.73
2008-09	21537	835.42	20856	894.31
2009-10	20689	802.53	19838	850.65
2010 – 2011 (Upto 31.5.2010)	2276	105.36	2441	129.37

D) DISTRIBUTION OF PESTICIDES, SEEDS & AGRICULTURAL IMPLEMENTS

TANFED draw Pesticides, Seeds and Agricultural Implements from leading manufacturers and distribute through the Primary Cooperatives in the districts. The details of the value of these inputs distributed during past few years are as given in Table 5.7.

Table 5.7

Distribution of Pesticides, Seeds and Implements by TANFED

(Value : Rs.in Lakhs)

Year	Pesticides.	Seeds	Implements	Total
2003-04	10.75	7.23	0.32	18.30
2004-05	23.44	3.70	3.04	30.18
2005-06	107.88	28.16	6.02	142.06
2006-07	77.87	23.86	4.87	106.60
2007-08	140.80	34.74	11.77	187.31
2008-09	117.53	33.72	20.67	171.92
2009-10	213.00	189.00	39.00	441.00
2010 – 2011 (Upto 31.5.2010)	11.20	11.40	14.69	37.29

TANFED owns a seed processing plant at Mannargudi which was commissioned during 1980 with a cost of Rs.3/- lakhs where quality paddy seeds are processed and distributed to the farmers to the extent of 300 MTs annually.

E) AGRICULTURAL MARKETING

Being a marketing Federation, TANFED does the work of procurement of Agricultural commodities such as cotton, chillies, coriander, pulses, oil seeds, pepper, turmeric, etc.

Procurement operation is undertaken through the Cooperative Marketing Societies and the Regulated Markets to fetch remunerative price for the farmers. This activity is being done under joint venture basis, tie-up arrangements with National Agricultural Cooperative Marketing Federation (NAFED) etc.

Year-wise performance made in the activity of Agricultural Marketing is as follows in Table 5.8.

Table 5.8

Turn Over Made by TANFED

Year	Qty.in MTs.	Value (Rs.in Lakhs)
2003-04	2287	645.27

2004-05	1852	328.92
2005-06	1334	272.26
2006-07	1161	218.86
2007-08 Copra	1072 5676	209.98 2054.93
2008-09	2486	443.96
2009-10 Copra	2625 27045	553.45 12035.00
2010 – 2011 (Upto 31.5.2010) Copra (upto 31.5 2010)	440 2505	140.16 1114.82

TANFED sell crackers at very reasonable price to the general public. In 2006 the total sales was Rs.19.77 lakhs whereas in 2007 the total sales was Rs.99.29 lakhs. TANFED also act as Nodel Agency for distributing crackers to the rural area through PACBs in the State during the last 3 years.

F) COLD STORAGES

TANFED has established two Cold Storage units at Chennai for the purpose of storing vegetables, fruits and perishables of the traders and General Public. The storage space are allotted on monthly rental basis.

	% of Utilisation	Rent earned
Cold Storage I	80%	4.07 lakhs
Cold Storage II	56%	9.08 lakhs
(upto 31.5.2010)		

(1) BASIN BRIDGE

The first Cold Storage Godown of TANFED was established in the year 1973 at Basin Bridge , Chennai. The installed capacity of this godown is 1350 tonnes. Total cost of this project is Rs.9.55 lakhs and the details of funding are as follows :-

1. NCDC Loan - 2.94 lakhs
2.Govt.Share Capital assistance - 4.90 lakhs
3.TANFED Share - 1.71 lakhs

Total - 9.55 lakhs

---

(2) KOYAMBEDU

TANFED installed its second Cold Storage with 2500 MTS capacity at Koyambedu Vegetable Market Complex availing loan facility from NCDC, Share Capital assistance from the State Govt. and subsidy from Ministry of Food Processing.

The total cost and pattern of financial assistance received are as follows.

1. NCDC Loan	44.00 lakhs
2. Govt. Share Capital assistance	55.00 lakhs
3. TANFED Share	47.75 lakhs
4. Subsidy from Ministry of Food Processing Industries.	52.00 lakhs
Total	198.75 lakhs

COLD STORAGE GODOWN AT KOYAMBEDU

G) STORAGE GODOWNS

For the purpose of storing agricultural inputs as well as agricultural commodities, TANFED constructed 39 godowns with the financial assistance from NCDC at various places with a combined storage capacity of 28,140 MTs. In addition to the own godowns TANFED hired 9 godowns with the capacity of 3,450 MTs. in needy areas with a view to minimise the transport carrying cost of agricultural inputs.

H) KEROSENE DISTRIBUTION

TANFED installed one kerosene bunk at Kodambakkam with a storage capacity of 15 Kilo Litres in the year 1969 and continue its function as wholesaler till date. In addition to the wholesale distribution, in order to cater to the needs of the ration card holders, four retail kerosene bunks are functioning in Kodambakkam (Chennai), Mannargudi, Madurai and Coimbatore under Public Distribution Scheme. Around 50,000 litres of kerosene is supplied to the card holders every month in each of these retail outlets. The allocation of kerosene for both wholesale and retail distribution is made by the Civil Supplies Department and is drawn from the Indian Oil Corporation Limited. The details of distribution of Kerosene as wholesaler and retailer during the past years are as follows in Table 5.9

Table 5.9
Distribution of Kerosene by TANFED

Year	Qty.in Kilo Litres	Value (Rs.in Lakhs)
2003-04	2517	267.99
2004-05	2426	233.20
2005-06	3428	288.00
2006-07	3428	272.94
2007-08	3019	250.37
2008-09	2876	242.33
2009-10	2703	228.85
2010 – 2011 (Upto 31.5.2010)	437	37.09

Finance and Accounts
Sources of Funds

TANFED has raised its funds from

a) Share Capital paid by members

b) Reserves & Surplus from out of profit

c) Borrowings in the form of short term loans, long term loan from State / Central Government, NCDC and cash credit from financing bank,
i.e., Tamilnadu State Apex Cooperative Bank.

Accounts

As in the case of Public Limited Companies, TANFED also maintains its accounts under 'Double Entry System of Book Keeping'. But instead of preparing Trial

Balance, TANFED is preparing Receipts and Charges statement as directed in the Tamil Nadu Cooperative Societies Act from the Receipts and Charges statement, the final accounts are prepared. Every year Budgets are prepared and approved by the Board. The Annual accounts are prepared as per the Act.

Computerisation

The entire accounting system were computerized for which a separate Computer wing is working with six terminals under LAN system with one Pentium II server. The computer environment commenced from 1.4.1998 at the cost of Rs. 10/- lakhs. It is working under Foxpro software package. In addition to the above systems, six more latest Pentium IV are installed for general purpose. Plan to switch over the present software to latest software is under progress.

Audit

The Audit Wing consists of Internal Audit and Statutory Audit. The Internal Audit constituted with the own staff of TANFED. The Statutory audit of the TANFED is being done by the Audit Officers of Director of Co-operative Audit which is working under the Finance Department of the State Government. There are one Assistant Director, 5 Co-operative Audit Officer and 1 Co-operative Auditor working in TANFED on concurrent basis. The Audit Certificate up to 2006 – 2007 had been received. The audit for 2007 – 2008 has been completed.

Model Quiz

1. Cotton Corporation of India was established during the year
   a. 1955 b. 1965 c. 1970 d. 1975

   Ans: c
2. Co operative marketing was not successful in India except
   a. Cotton b. Edible oil c. Milk d. Pulses Ans: c

TRUE or FALSE

1. Ordinary members of co operative society do not have right in the profit share of the society. (False)
2. Nominal members of co operative society have the right to participate in decision making. (False)
3. State government do not subscribe to share capital of co operative marketing societies. (False)
4. Co operative marketing societies act as agents of the government in the procurement of food grains. (True)

5. NAFED is not functioning under co operative principles. (False)
6. NAFED does not take part international trade. (False)

CHAPTER 6

STATE TRADING and QUALITY CONTROL

One of the responsibilities of the government is to ensure the supply of essential commodities to the people. This may require direct intervention on its part in trading of agricultural commodities.

Objectives

The objectives of state trading are:

(i) To make available supplies of essential commodities to consumers at reasonable prices on a regular basis;

(ii) To ensure a fair price of the produce to the farmers so that there may be an adequate incentive to increase production;

(iii) To minimize violent price fluctuations occurring as a result of seasonal variations in supply and demand;

(iv) To arrange for the supply of such inputs as fertilizers and insecticides so that the tempo of increased production is maintained;

(v) To undertake the procurement and maintenance of buffer stock, and their distribution, whenever and wherever necessary;

(vi) To arrange for storage, transportation, packaging and processing;

(vii) To conduct surveys and provide the required statistics to the government so that it may improve the conditions of the farmers; and

(viii) To check hoarding, black-marketing and profiteering.

Types of State Trading

State trading may be partial or complete, depending upon the extent of intervention desired by the government.

(i) Partial State Trading

In partial state trading, private traders and government coexist. Traders are free to buy and sell in the market. The government may place some restrictions on them, such as declaration of stocks, limits on the stocks which can be held at a point of time and submission of regular accounts. The government enters the market for the purchase of commodities directly from producers at notified procurement price. It undertakes the distribution of commodities to consumers through a network of fair price shops. In this way, it safeguards the interest of producers and consumers alike, and keeps a check on the undesirable activities of traders.

(ii) Complete State Trading

This is the extreme form of trading adopted by the government when partial state trading fails to ensure fair prices to producers and make goods available to consumers at reasonable prices. The purchase and sale of commodities is undertaken entirely by the government or its agencies. Private traders are not allowed to enter the market for purchase or sale. Under this form of state trading, the government remains the sole purchaser and distributor of the commodity.

Complete state trading necessitates the outlay of huge finance, and the provision of storage facilities at important production and consumption centres, and calls for appointment of efficient men so that the purchase and distribution functions of professional traders may be effectively taken over by a governmental agency. In India, complete wholesale trade in wheat was taken over by the government in 1973; but it had to be given up very soon.

Experience of Wholesale Trade Takeover in Wheat

On the recommendation of Chief Ministers' conference held in February, 1973, the wholesale trade in wheat and paddy was taken over by the government from the rabi season of 1972-73. It was intended to eliminate the wholesalers, who were considered to be responsible for creating an artificial scarcity by hoarding with a view to raising prices. It was expected that the direct purchase of foodgrains by the government and their subsequent objectives of the complete takeover of wholesale trade were to:

(i) Eliminate unwarranted profits of middlemen;
(ii) Ensure remunerative prices to producers;
(iii) Guarantee an assured supply of foodgrains to consumers at reasonable prices;
(iv) Arrest the price rise; and
(v) Excise effective public control over the marketable surplus of agricultural commodities – an item of essential necessity for the masses.

Under the wholesale trade takeover scheme, public sector agencies like the Food Corporation of India, the Civil Supply Departments of State Governments and Co-operative Marketing Societies were entrusted with the responsibility of purchasing the marketed surplus and its subsequent disposal to consumers through a network of fair price shops.

The scheme of wholesale trade takeover in wheat did not succeed, and was withdrawn immediately. It was planned to purchase 30 to 35 per cent of the total production of wheat in the country during that year; but government agencies could

procure only half of the targeted quantity of 8.5 million tones of wheat. The reasons of the failure of the scheme were:

(i) Very low procurement prices, i.e., Rs.76 per quintal;

(ii) Coaxing farmers by disgruntled traders. Traders were the main sufferers when this scheme was introduced; and they undermined the arrivals of wheat in the market;

(iii) Over-estimation of the marketable surplus in various States;

(iv) Inconvenient public purchase system resulting in a long wait by farmers for many hours, and sometimes for more than one day for their turn to hand over the produce and get payment for it. Farmers had to travel long distances to sell their produce at official depots;

(v) Skewed distribution of marketed surplus in favour of big farmers, who have retention power;

(vi) Slackness on the part of State Governments in implementing the policy because of lack of sufficient and experienced staff capable of handling the work; and

(vii) Lack of storage facilities with the government for storing the procured foodgrains.

The government realized that takeover of rice trade would be much more difficult than wheat trade due to its operation on a wide area in the country and also due to the existence of surplus regions within deficit states. Hence government gave away the complete wholesale trade takeover. However, partial state trading has continued mainly through Food Corporation of India and National Agricultural Cooperative Marketing Federation.

EXPORTS FROM INDIA

STC exports a diverse range of items to a number of destinations throughout the world. Exports by STC vary from traditional agricultural commodities to sophisticated manufactured products. Besides negotiating, contracting and shipping, STC seeks to introduce new products, explore new markets and undertake wide ranging ancilliary functions such as Product Development, Financing, Quality Control and Import of machinery and raw materials for export production. STC makes purposeful use of its world-wide connections, abundant experience, up-to-date information about the market trends and long term perspective on various commodities to ensure competitive prices, right quality and adherence to delivery schedules to the buyers abroad.

Principal Items of Export Agricultural Commodities

Wheat, Cashew, Coffee, Rice, Tea, Tobacco & Rubber, Sugar Extractions, Opium, HPS Groundnut, Spices, Castor oil & Seeds, Jute Goods

Export of Manufactured Products

Chemicals, Drugs & Medical Disposables, Engineering & Construction Materials, Consumer Products, Textiles and Garments, Leather ware, Processed Foods, Iron Ore and Steel Raw Materials.

IMPORTS INTO INDIA

STC imports a number of essential commodities to cover the domestic shortfalls and hold the price line. STC serves the national objective by arranging timely imports at most competitive prices. In the process, the Corporation makes best use of its strength in handling bulk imports, vast infrastructure and above all an experience of over four decades in fulfilling the needs of the industry.

Principal Items of ImportAgricultural Commodities

Edible oils, Sugar, Wheat, Fatty Acids, Pulses

Manufactured Products

Hydrocarbons, Gold & Silver, Minerals/Metals, Petro-chemicals, Fertilisers, Scientific Instruments & Hospital/ Police equipments, FMCG Goods and IT Products

SERVICES

While undertaking import and export operations, the Corporation renders following services :

To the Overseas buyer

STC acts as an expert guide for buyers interested in Indian goods. For them, STC finds the best Indian manufacturers, undertakes negotiations, fixes delivery schedules, oversees quality control - all the way to the final shipment to the entire satisfaction of the buyer.

To the Indian Industry

The Indian manufacturers, whose products sail the seas via STC, benefit a lot from its expertise. STC helps thousands of Indian manufacturers to find markets abroad for their products. STC assists the manufacturers to use the best raw materials, guides and helps them manufacture products that will attract buyers abroad. Some of the other services offered by STC to the Indian manufacturers include : * Financial assistance to exporters on easy terms.

* Taking products of small scale manufacturers to international trade fairs and exhibitions.
* Import of machinery and raw material for export production.
* Assistance in the areas of marketing, technical know-how, quality control, packaging, documentation, etc.
* Supply of imported goods in small quantities as per convenience of buyers.
* Market intervention on behalf of the Government.

To the Indian Consumer

The Indian consumers also benefit from STC's expertise and infrastructure. STC imports essential commodities for them to cover shortfalls arising in the domestic market. During the last one decade, STC imported sugar, wheat and pulses to meet domestic requirements at a very short notice.

EDIBLE OIL

Import of Edible oils is one of the major activities of STC. Subsequent to the placement of imports of Edible oils under OGL by the Govt. of India, STC in addition to import of oils for PDS, has been importing various oils on commercial account for domestic buyers including actual users. Imports are undertaken against the firm advance indents of the prospective buyers. STC invites offers for the indented oils, negotiates the best possible terms and finalises the deal with the consent of the buyers as per their requirement. The entire operation is based on actual costs plus a fixed service margin charged by STC. Various components of actual cost are generally as under.CIF cost of the goods.

Bank charges - relating to opening of L/C, negotiation of documents, etc.

Customs duty, taxes and levies, as applicable from the time to time.

Expenses on clearing, handling and insurance etc. (presently estimated @ Rs. 100/- PMT).

Storage charges on actuals or at a fixed rate wherever STC's own storage tanks are used.

Vessel demurrage, if any, at actual.

Service charge : a nominal service charge is taken.

Deliveries are organised on high seas as well as ex-tank basis.

Delivery period : generally 30 days from the date of arrival/PHO clearance of the oil.

Payment mechanism

(a) STC makes payment to the foreign supplier against sight LC.

(b) Domestic buyers are required to make payment prior to taking delivery.

(c) Credit facility to the buyer is available upto 120 days against internal LC/co-accepted Bill of Exchange by the reputed bank. STC charges interest on funds deployed at the cash credit rate plus 1% per annum basis (currently 12.50% p.a.)

Earnest Money: Orders are placed by STC on receipt of earnest money deposit at the time of placement of indents by the Indian buyers followed by a PBG/additional Cash Deposit immediately after placement of the orders. EMD is returned to the party together with interest after satisfactory execution of the contract by the buyer.

STC is quite flexible in various terms & conditions. Any constructive proposal from the buyer is analyzed objectively in the interest of growth of business. In case any further information is required, please contact Shri Prakash Chand, GM-I/C, Telephone No. 23701074 (direct), 23313177 / 23701100 Extn : 2064 at our Corporate Office at New Delhi or Branch Manager of STC's offices at Ahmedabad, Mumbai, Chennai, Hyderabad, Kolkata.

Corporate Office

Jawahar Vyapar Bhawan
Tolstoy Marg, New Delhi - 110001, INDIA
Tel: 91-11-23313177 Fax : 91-11-23701191, 23701123 E-mail : co@stc.gov.in
Website: www.stc.gov.in

Branch Offices

Mumbai

The State Trading Corporation of India Ltd.
Maker Chambers IV, 6th Floor, Nariman Point, Mumbai - 400021,
INDIA Phone : 91-022-22024878 Fax : 91-022-22024877 , 22852411 E-mail : mumbai.stc@nic.in

Kolkata

The State Trading Corporation of India Ltd.
"Nilhat House", 9th & 10th Floor, 11, R.N. Mukherjee Road, Kolkata - 700001, INDIA
Phone: 91-033-22305464, 22436490, 22435492 Fax : 91-033-22480777, 22488165
E-mail: kolkata.stc@nic.in

Chennai

The State Trading Corporation of India Ltd.
"Chennai House", 4th Floor, 7, Esplanade, Chennai - 600108, INDIA
Phone: 91-044-25340211 Fax: 91-044-25340469 , 25341784

E-mail : chennai.stc@nic.in

Ahmedabad

The State Trading Corporation of India Ltd.
"H.K. House, 6th Floor", Behind Jivabhai Chambers,
Ashram Road, Navarangpura, Ahmedabad - 380009, INDIA
Phone : 91-079-6580797, 6589605, 6581021 Fax : 91-079-6587533
E-mail : ahmedabad.stc@nic.in

Bangalore

The State Trading Corporation of India Ltd. "Chandrakiran", 2nd Floor,
10-A, Kasturba Road, Bangalore - 560001, INDIA Phone : 91-080-
22270221 Fax : 91-080-22275183
E-mail : bangalore.stc@nic.in

Hyderabad

The State Trading Corporation of India Ltd.
5th Floor, Mogul's Court, Basheerbagh,
Hyderabad - 500001, INDIA
Phone : 91-040-23237389, 23296460 Fax :91-040-23236786
E-mail : hyderabad.stc@nic.in

Jalandhar

The State Trading Corporation. of India Ltd.
A-6, Sports & Surgical Goods Complex, Kapurthala Road,
Jalandhar - 144021, INDIA
Phone : 91-0181-2650436 Fax : 91-0181-2650461
E-mail : jalandhar.stc@nic.in

Agra

The State Trading Corporation of India Ltd.
M. G. Road, Bharatpur House, Civil Lines, Agra - 282002, INDIA
Phone : 91-0562-2521045, 2521244 Telefax :91-0562-2150622
Sub Branches : Cochin, Gandhidham, Guntur, Raipur

Quality Control in Agricultural Products

Quality control of agricultural commodities is the responsibility of the Directorate of Marketing and Inspection. The Directorate has prescribed grade standards for various agricultural products under the Agricultural Produce Grading and Marking Act, 1937. Agricultural commodities are graded under this Act on the basis of the specifications laid

down under the grade standards. Graded products bear the AGMARK label, indicating the purity and quality of the product. Consumers are benefited when they buy graded products. The details of the mechanics of grade standards for agricultural products and the progress of grading in India have been discussed in Chapter 4.

Manufactured Products

Manufactured products are graded in accordance with the standards laid down by the Indian Standards Institution, now Bureau of Indian Standards and bear the ISI label. Manufacturers have to use proper ingredients in specified proportions and follow the technique of manufacture given in the standards laid down by the Indian Standards Institution. The ISI label is an indicator of the good quality of the product.

Indian Standards Institution (ISI)

Standardization on an organized basis started in India with the establishment of the Indian Standards Institution. The Institution, popularly known as the ISI; was set up in 1947 with the active support of the industrial, scientific and technical organizations in the country. The ISI frames standards in consultation with, and as a result of the co-operation of, the community – industrialists, scientists, administrators and the public. Standardization plays a vital role in the industrial development of a country. Apart from helping the commercial movement and industrial exchanges, standards conserve the production effort by reducing costs and making mass production possible. Thus, standards lead to the best utilization of the human and material resources of a country. The institution operates under an Act of Parliament (ISI Certification Marks Act), under which manufactured items are stamped with the ISI mark of certification. This mark acts as a third party guarantee to the purchaser that the goods bearing the ISI mark have been produced in accordance with the provisions of the relevant Indian standards.

The World Standards Day is celebrated annually on 14th October, for it was on this day in 1946 that the United Nations Co-ordinating Committees decided to set up the International Organization for Standardization. This international organization now has one lakh experts from 82 countries directly involved in its work, and help it to create more and better international standards.

The aims and objects of the ISI are:

(i) Preparation of standards for products, commodities, materials and processes on national and international bases;

(ii) Promotion of the general adoption of the standards prepared by it at national and international levels;

(iii) Certification of industrial products and assistance in the production of quality goods;

(iv) Dissemination of information relating to standards and standardization;

(v) Conduct of surveys and training programmes for assistance to Indian industries in organizing their in-plant standards activity;

(vi) Collaboration with international organizations dealing with standardization for promotion of international trade;

(vii) Imparting training in industrial standardization to scientists and technologists from abroad; and

(viii) Performing a watching function in regard to the quality of Indian exports. The Export Inspection Council exempts certain products, such as light engineering products, diesel engines and power-driven pumps, from preshipment inspection if they carry the ISI mark.

The Indian Standards Institution functions through nine Divisional Councils, which are responsible for the work of standardization in their respective fields. These divisional councils are; agricultural and food products, chemical, civil engineering, consumer products, electro-technical, mechanical engineering, structurals and metals, textiles and cargo movements, marine products and packaging.

ISI has set up about 2,000 technical committees, sub-committees and panels dealing with different subjects with a membership of more than 24,000 experts representing various interests such as manufacturers, purchasers, consumers, scientific, technical and research organizations and government departments. These experts work in an honorary capacity and evolve national standards by consensus. Each standard specification is finalized after an exhaustive process of testing in laboratories, discussion in the committees and circulation to hundreds of interested parties all over the country.

Formulation of standards through consensus of different interests concerned generally ensures their smooth implementation. In addition, Central and State Governments; local bodies and statutory organizations generally adopt standards in their purchases. Some State Governments decided to give preference to ISI certified products while some others have established standards cell for effective implementation of Indian Standards.

ISI also uses different media of public relations and publicity to spread the message of standardization. As a result, more than 90 per cent of Indian Standards have been adopted by various official and non-official organizations. Various promotional and

instructional programmes are carried out. The promotional programmes include management conferences and group meetings. The instructional programmes comprise survey, training programmes and seminars.

For effective implementation of national standards and for bringing the advantages of standardization within the reach of the common consumer, the institution is operating a certification marks scheme under the ISI (Certification Marks) Act. This Act enables ISI to grant licences to manufactures to use the ISI mark on their products. Every licence includes a scheme of testing and inspection which the licencee is required to follow strictly. During the operation of the licence, ISI carries out regular and surprise inspections of the manufactures to make sure that the scheme of testing and inspection is being properly adhered to. Samples of certified products are drawn from the production line and from the open market and tested in independent laboratories. As a safeguard for the consumer the scheme provides for free replacement of ISI marked goods found to be of substandard quality.

The certification scheme was started in 1955-56. The licencee covers a range of 570 products including consumer products and industrial items such as biscuits, infant milk food, ink, cables, conductors, jute products, steel, paints, shoe polish, pressure cookers, aluminium utensils, coffee, electrical appliances, sports goods and water meters. In the rural sector, the ISI has formulated standards for grain storage structures, fertilizers, pesticides, seeds, farm machinery and implements, pumping sets, gobar gas plants and animal husbandry and dairy equipments. Some items in the market, however, do not conform to these standards because they are produced in the small and tiny sectors without any facility or funds for quality testing.

For adoption of national standards to regulate the quality of industrial manufactures, in-plant standardization is an important requirement. Since 1961, ISI has promoted the concept of in-plant standardization through conferences, symposia and training programmes.

The institution has established a central laboratory at New Delhi and regional laboratories in Mumbai, Kolkata and Chennai for conducting testing of products covered under the certification marks scheme. These laboratories also undertake investigational work covering food, chemical, electrical and mechanical items for the purposed of evaluation of standards. Laboratory personnel from government agencies and industries covering their products under the ISI certification marks scheme avail of the training facilities provided by the Institution in its laboratories.

ISI serves the interests of the country in the field of international standardization by close collaboration with the international organizations such as ISO (International Organization for Standardization) and the IEC (International Electro Technical Commission) for standardization. It is represented on important administrative bodies of these organizations.

The ISI also works in close collaboration with the similar organizations for standardization in other countries of the ECAFE (Economic Commission for Asia and Far East) Region with a view to promoting standardization activities. It actively participates in the work of the Asian Standards Advisory Committee (ASAC).

The ISI has benefited the consumers as well as the manufacturers. It promotes overall economy and brings about the best utilization of human and material resources by bringing the advantages – minimization of wastages, cutting down unnecessary varieties of products, increasing productivity and reducing costs. It protects the consumers through assured quality. It acts as a third party guarantee. The scheme brings to the consumers the benefits of lower price, better quality, more safety and repair services. To manufactures, it helps in adopting, the process of standardization. This reduces wastage, cost of material, cost of production and increases the chances of profits. It has introduced the metric system of weights and measures. The ISI took up the steel economy project involving a comprehensive standardization programme to give a fillip to the steel industry and introduce economies in the use of structural and special alloy steels. The project resulted in a saving of 24 per cent in the use of metal according to an evaluation by NCAER. Another notable achievement is the preparation of the National Building Code streamlining housing construction practices all over the country.

Bureau of Indian Standards (BIS)

The Indian standards Institution has been renamed as the Bureau of Indian Standards (BIS) with effect from April 1, 1987. Along with the change in its name, its status and scope of activities have also been enlarged. The Bureau of Indian Standards carry on all the functions of ISI as before with greater thrust to consumer protection, improving the level of quality of Indian products, harmonizing the standards formulation and the certification/inspection activities in the country by providing a larger network of testing and consultancy services.

The Bureau has been established by the Bureau of Indian Standards Act, 1986 and has become a statutory body. As such all the activities of the Bureau *viz*., standards formulation, product certification, quality assurance, consultancy services, quality

assessment, testing and development of test methods have assumed statutory status. The ISI was a registered society and statutory powers were confined to it only in respect of the operation of the certification marks activity.

Over the past five decades, it has built up over 17,000 Indian Standards covering products in different sectors like food and agriculture, chemicals, civil, mechanical and electrical engineering, electronics, textiles and many other products. The standards are constantly reviewed and updated to keep pace with technological innovations and the new social needs. The production of small-scale items based on Indian standards provides competitive capability with large-scale sector.

The Bureau has also made special efforts in the sphere of rural development by formulating over 2,000 standards relevant to the rural sector in areas of agricultural inputs like fertilizers, pesticides, agricultural machinery and farm implements, pumping sets, gobar gas plants and also in the sphere of post-harvest technology. The BIS has also formulated three standards for water.

The Bureau is one of the largest certification agencies with over 11,000 licences in operation for a wide range of products. It has become an institution of quality assurance for the consumers.

Standards certification is mandatory for items of mass consumption particularly those affecting health and safety of the consumers. Provision of voluntary certification for items such as colour television, control switches, sodium vapour lamps, jute and canvas products, bus and truck tyres and greases also exists.

Some of the latest highlights of BIS activities are:

(i) BIS has adopted IS/ISO 9000 series of standards. Now BIS quality certification is on the lines of international norms and is accredited by RVA Neitherlands.

(ii) With growing concern for environmental friendly industrial activity, BIS has started ISO 14001 EMS Certification.

(iii) BIS is also undertaking HACCP certification. HACCP Certification is a process control system designed to prevent microbial and other hazards in food production. It is based on Quality Management System and IS 15000 which is equivalent to CODEX ALI NORM 97/13A.

(iv) BIS also works as central enquiry point for WTO.

(v) BIS has so far formulated more than 17000 standards.

(vi) BIS has also formulated three Indian standards for water.

Consumer Protection

Food products have the distinction of meeting an essential need of all the consumers, irrespective of their economic and social status. Protecting the consumer's interest relating to food products means providing him wholesome, hygienically prepared and pre-tested quality products to enable him to lead a healthy life. The consumers are often cheated through deceptive and defective weights and measures and adulteration.

The doctrine of "caveat emptor", *i.e.,* 'let the buyer beware' has long been the corner-stone of the consumer laws in India and this is virtually not acceptable to the average consumer now. The doctrine put forward in his favour with the growing consumer awareness is "*caveat venditor*", that is, 'let the seller beware'.

Various Acts were framed by the government from time to time to protect the consumers. Some of the main Acts enacted and statutory orders passed by the Government to subserve the interest of the consumers are:

1. The Indian Sale of Goods Act, 1930.
2. The Agricultural Produce (Grading & Marking) Act, 1937.
3. The Drugs and Cosmetics Act, 1940.
4. The Indian Standards Institution (Certification Marks) Act, 1952 and now Bureau of Indian standards Act, 1954.
5. The Essential Commodities Act, 1955.
6. The Fruit Products Order, 1955.
7. The Sugar Control Order, 1956.
8. The Export (Quality Control and Inspection) Act, 1963.
9. The Vegetable Oil Products (Control) Order, 1967.
10. The Monopolies and Restrictive Trade Practices Act, 1969, and amended in 1984.
11. The Meat Food Products Order, 1975.
12. The Packaged Commodities Order, 1975.
13. The Standards of Weights and Measures Act, 1976.
14. The Cold Storage Order, 1964 and 1980; and
15. The Consumer's Protection Act, 1986, 1991, 1993, 2002.

The above list of legislations is quite impressive for the protection of the consumers. In practice the situation appears obscure due to poor enforcement of them. Under the latest Act, *i.e.,* the Consumer's Protection Act of 1986, there is a provision that a consumer may get his defective goods replaced or price refunded or get compensation for any loss due to the unfair trade practices of the traders.

Many voluntary agencies are working in the country for giving strength to the consumers movement and the protection of consumers. The important ones are Consumers Guidance Society of India, Mumbai 1966; Consumer Council, Vishakhapatnam, 1970; Consumer Education and Research Centre, Ahmedabad; Consumer Action Forum, Kolkata; Karnataka Consumers Service Society, Bangalore and Grahak Panchayats, Mumbai and Pune. The Government has established Consumer's Protection Councils at the State and district levels for the protection of the consumers. The work done by these agencies has been commendable in extending the rights of the consumers by keeping the producers conscious of consumer rights and interests. The main contributions of the organizations are in areas of consumer education (providing information about availability of goods, prices and trade practices), product rating (testing of products) and liaison with government and producers of products.

Quality Management in Food

(a) HACCP

The rejection of Indian wheat consignments by Iraq, gherkin containers by European Union and grape containers by U.K. and domestic complaints of presence of rat droppings in wheat are some of the examples quoted as non-compliance of food safety norms. It has harmed our business both on the export front and in the local market. By and large, the 'Made in India' label is considered as sub-standard produce by people of many countries. Therefore, there is a need to change this perception to make a significant dent in the food export market especially in the processing sector. Food processing sector comprising fruits and vegetables, grains, milk, fish, meat, poultry products, soft drinks, and alcoholic beverages is one of the largest sector in terms of production, consumption, employment generation and from export prospects. As such adoption of HACCP concept is important. There is a need to generate continuous awareness and run educational programmes for exporters and also have a legislation to ensure safety norms.

This concept was not so important when the food chain was localized and people consumed locally produced fresh harvested or cooked food without prolonged storage. In recent times, food has become a global issue. Good-looking fresh fruits and vegetables might contain hazardous chemicals and bacteria which may cause ill effects on the health of the consumers, instantaneously or at a later date. Quality management

of food is, therefore, essential in fruits and vegetables and other processed products from the safety point of view.

A new era in food safety started in 1960s when USA planned to send astronauts in spaceship to moon. For such a mission, it was necessary to ensure that food provided to the astronauts would not cause illness while on board. With this objective, Pillsbury of N.A.S.A. (National Aeronautics and Space Administration) developed and used HACCP as preventive system for preparation of food for astronauts.

HACCP and Risk Analysis is a modern concept of quality management applied to food items. The concept of HACCP gained recognition and acceptance globally as a system of choice for good safety due to following reasons:

(i) To identify food safety hazards for different farm products and their process of production.

(ii) To accept responsibility for food safety instead of relying upon compliance with official regulation and inspection by food safety inspectors.

(iii) Necessity of creating awareness among people to realize their role and responsibility for food safety.

(iv) To improve the design of food products and process for achieving safe food, and

(v) To prepare food companies for future HACCP based food safety regulations and trade specifications.

International food safety standards are developed by the Codex Alimentarius Commission (CODEX). This is a joint commission of FAO and WHO and recognizes HACCP based system for food. As per the WTO requirement, only Codex standards are acceptable for international trade. Therefore, Codex-HACCP is minimum international standard for trade among countries in future. Based on this analysis, appropriate action can be taken to ensure that the areas identified as critical control points are kept under control and are not allowed to endanger the items produced.

There are seven principles of Codex-HACCP.

(i) Conduct a hazard analysis.

(ii) Determine the critical control points (CCPs)

(iii) Establish critical limit

(iv) Establish a system to monitor control of the CCP

(v) Establish the corrective action to be taken when the monitoring indicates that a particular CCP is not under control.

(vi) Establish procedure for verification to confirm that the HACCP system is working effectively.

(vii) Establish documentation concerning all procedures and records appropriate to these principles and their application.

Food safety is analysed in terms of hazards and risks. A hazard is the capacity of a thing to cause harm under certain conditions. The probability that a defined harm will occur is the risk associated with the hazard. The hazards may be physical, chemical or micro-biological and can occur at any stage from raw material to the consumption by the consumer.

The benefits of testing food by HACCP are;

(i) Avoids human sufferings;

(ii) Reduces burden from over burdened health care system;

(iii) Increases the export of food products;

(iv) Attracts more foreign tourists; and

(v) Increases earning potential of citizens.

(b) ECOMARK

The Government of India instituted a scheme known as ECOMARK in February, 1991 for labeling environment friendly products. This scheme is administered by the Bureau of Indian Standards (BIS). The scheme provides for labeling of household and other consumer products which meet certain environmental criteria along with quality requirements prescribed in relevant Indian Standards. For a product to be eligible for ECOMARK, the product shall confirm to the relevant Indian Standards as well as additional requirement incorporated for ensuring environment friendly nature of the product. The mark is a combination of BIS Standards Mark (ISI) and the Eco logo.

(c) Mark to Identify Vegetarian/Non-Vegetarian Food Products

The Government of India by an amendment in the Prevention of Food Adulteration Act, 1955 on 4th October, 2001 and 20th June, 2002 has made it mandatory for the manufacturers of food products to put a label indicating whether the food has been prepared using meat and allied products or otherwise. Under this amendment, the packed food products bearing a mark of a dot in a square in green colour is indicator of vegetarian product and a mark is brown colour is indicator of non-vegetarian food. This amendment is applicable throughout the country.

(d) Mark of FPO

The products carrying a mark of FPO in an oval with two hanging strips (making inverted – V shape) is mandatory on packed containers of fruits and vegetables processed products. This indicates the quality of the product and conveys that the production of processed fruit products has been carried out under clean and sanitary conditions. This mark is issued by the Ministry of Food Processing Industries of Government of India, New Delhi.

Currently, there are 27 laws relating to food in the country. The Government of India has constituted a group of Ministers to prepare a modern food law by integrating all of the multifarious laws and regulations.

Consumer Education and Research Centre (CREC)

The Consumer Education and Research Centre (CREC) is a political, non-profit organization situated at Ahmedabad. It is a public charitable trust registered under the Bombay Public Trust Act, 1950. The CREF is recognized as consumer organization by the Government of Gujarat. This is the only consumer organization recognized as Research Institute by the Central Government on the recommendation of the Department of Science and Technology.

The main objectives and functions of this centre are:

(i) To create an enlightened consumer consciousness and public opinion through the mass media;

(ii) To study analytically and do research on the working of the public utility services;

(iii) To carry academic programmes for training the workers and leaders for consumer protection;

(iv) To approach the legislators for lobbying with them for taking up consumer protection issues on the floor of parliament/assemblies.

(v) To mobilize and motivate people and other voluntary organizations for protection of consumers from various ills in the society.

(vi) To take recourse to court for redressal of grievances of the consumers.

(vii) To establish a two-way dialogue with the consumer organizations in the country and those of abroad for mutual benefit and support;

(viii) To set up consumer product testing laboratory for testing and evaluation of the product such as food, pharmaceutical and domestic electric appliances; and

(ix) To set up consumer library with facilities for increasing the consumers' knowledge.

Model Quiz

1. Quality of agricultural commodities is ensured by

   a. AGMARK b. ISI c. BSI d. ISO Ans: a

2. International food safety standards are developed by

   a. HACCP b. CODEX c. ECOMARK d. WTO

   Ans: b

CHAPTER 7

WAREHOUSING AND FOOD CORPORATION OF INDIA

Warehousing

Meaning and Functions

Warehouses are scientific storage structures especially constructed for the protection of the quantity and quality of stored products. Warehousing may be defined as the assumption of responsibility for the storage of goods. It may be called the protector of national wealth, for the produce stored in warehouses is preserved and protected against rodents, insects and pests, and against the ill-effect of moisture and dampness.

The warehousing scheme in India is an integrated scheme of scientific storage, rural credit, price stabilization and market intelligence and is intended to supplement the efforts of co-operative institutions. The important functions of warehouses are:

1. Scientific Storage: Here, a large bulk of agricultural commodities may be stored. The product is protected against quantitative and qualitative losses by the use of such methods of preservation as are necessary.

2. Financing: Warehouses meet the financial needs of the person who stores the product. Nationalized banks advance credit on the security of the warehouse receipt issued for the stored products to the extent of 75 to 80 per cent of their value.

3. Price Stabilization: Warehouses help in price stabilization of agricultural commodities by checking the tendency to making post-harvest sales among the farmers. Farmers or traders can store their products during the post-harvest season, when prices are low because of the glut in the market. Warehouse helps in staggering the supplies throughout the year. They thus help in the stabilization of agricultural prices.

4. Market Intelligence: Warehouses also offer the facility of market information to persons who hold their produce in them. They inform them about the prices prevailing in the period, and advise them on when to market their products.

This facility helps in preventing distress sales for immediate money needs or because of lack of proper storage facilities. It gives the producer holding power; he can wait for the emergence of favourable market conditions and get the best value for his product.

Types of Warehouses

Warehouses may be classified on two bases:

1. On the Basis of Ownership

(a) Private Warehouses: These are the warehouses which are owned by the government and are meant for the storage of goods of any member of the public against a prescribed storage charge. The method of operation and the charges for storage are regulated by the government.

(b) Bonded Warehouses: These warehouses are specially constructed at a seaport or an airport and accept imported goods for storage till the payment of customs by the importer of goods. These warehouses are licensed by the government for this purpose. The owner of the warehouse gives an undertaking to the government that customs duty will be collected from the person before he is allowed to remove the goods from the warehouse. In other words, the goods stored in this warehouse are bonded goods. They may be owned by the dock authorities or privately-owned; but they have to work under the close supervision and control of the customs authorities. The following services are rendered by bonded warehouses:

(i) The importer of goods is saved from the botheration of paying customs duty all at one time because he can take delivery of the goods in parts.

(ii) The operation necessary for the maintenance of the quality of goods – spraying and dusting, are done regularly.

(iii) Entrepot trade (re-export of imported goods) becomes possible. The importer may take delivery of the goods without paying the customs duty if they are to be re-exported. He is thus saved from the botheration of first making the payment of customs duties on imported goods and then getting a refund on re-exported goods.

2. On the Basis of Type of Commodities Stored

(a) General Warehouses: These are ordinary warehouses used for storage of most of foodgrains, fertilizers etc. In constructing such warehouses no commodity-specific requirement is kept in view.

(b) Special Commodity Warehouses: These are warehouses which are specially constructed for the storage of specific commodities like cotton, tobacco, wool and petroleum products. They are constructed on the basis of the specific requirements of the commodity.

(c) Refrigerated Warehouses: These are warehouses in which temperature is maintained as per requirements and are meant for such perishable commodities as vegetables, fruits, fish, eggs and meat. The temperature in these warehouses is maintained below 30^{o} to 50^{o}F or even less, so that the product may not get spoiled by high atmospheric temperature.

Warehousing in India

In 1928, the Royal Commission on Agriculture underscored the need for a warehousing system in India. The Central Banking Enquiry Committee, 1931, too, drew attention to this need. The Reserve Bank of India emphasized the need for warehouses as early as in 1944, and proposed that every State Government should enact legislation to regulate the functioning of warehouses. The All-India Rural Credit Survey Committee of the Reserve Bank of India (set up in 1951 and submitted its report in 1954) also made comprehensive recommendations for the development of warehousing as an integrated scheme of rural credit and marketing. As a result of the recommendations of the Committee, the Government of India enacted the Agricultural Produce (Development and Warehousing) Corporations Act, 1956. The Act provided for:

(a) The establishment of a National Co-operative Development and Warehousing Board (which was set up on 1st September, 1956);

(b) The establishment of the Central Warehousing Corporation (which was established at Delhi on 2nd March, 1957); and

(c) The establishment of State Warehousing Corporations in all the States in the country (which were established in various states between July 1957 and August 1958).

In 1962, the Government of India decided to break up the Act of 1956 into two separate Acts – the National Co-operative Development Corporation Act, 1962, and the Warehousing Corporations Act, 1962. The Warehousing Corporations Act came into operation on 18th March, 1962. The Act defines the specific functions and the area of operations of Central and State Warehousing Corporations. It enlarged the list of the number of commodities meant for storage.

(a) National Co-operative Development and Warehousing Board

This board was set up on 1st September 1956 to perform the following functions:

(i) To advance loans and grants to State Governments for financing co-operative societies engaged in the marketing, processing or storage of agricultural produce, including contributions to the share capital of these institutions;

(ii) To provide funds to warehousing corporations and the State Governments for financing co-operative societies for the purchase of agricultural produce on behalf of the Central Government.

(iii) To subscribe to the share capital of the Central Warehousing Corporation and advance loans to State Warehousing Corporations and the Central Warehousing Corporation;

(iv) To plan and promote programmes through co-operative societies for the supply of inputs for the development of agriculture; and

(v) To administer the National Warehousing Development Fund.

In March 1963, the Board was converted into the National Co-operative Development Corporation (NCDC), and its functions were limited to co-operative development.

(b) Central Warehousing Corporation (CWC)

This Corporation was established as a statutory body in New Delhi on 2nd March, 1957. Under the new Act, the Central Warehousing Corporation was formally re-established on March 18, 1963. This Corporation which made a modest start with seven warehouses, with 7,000 tonnes capacity, in December 1957, had set up 458 warehouses in different places in the country, with a total storage capacity of 78.87 lakh tones at the end of March 2001. Of this, the present utilization is nearly 85 per cent of the total available capacity. CWC is operating 487 Warehouses across the country with a storage capacity of 10.6 million tonnes providing warehousing services for a wide range of products ranging from agricultural produce to sophisticated industrial products. Warehousing activities of CWC include food grain warehouses, industrial warehousing, custom bonded warehouses, container freight stations, inland clearance depots and air cargo complexes. Apart from storage and handling, CWC also offers services in the area of clearing & forwarding, handling & transportation, procurement & distribution, dis infestation services, fumigation services and other ancillary activities.

The Central Warehousing Corporation provides safe and reliable storage facilities for about 120 agricultural and industrial commodities. The areas of operations of these central warehouses include centres of all-India and inter-state importance. The functions of the Central Warehousing Corporation are:

(i) To acquire and build godowns and warehouses at suitable places in India;

(ii) To run warehouses for the storage of agricultural produce, seeds, fertilizers and notified commodities for individuals, co-operatives and other institutions;

(iii) To act as an agent of the government for the purchase, sale, storage and distribution of the above commodities;

(iv) To arrange facilities for the transport of above commodities;

(v) To subscribe to the share capital of State Warehousing Corporations; and

(vi) To carry out such other functions as may be prescribed under the Act.

While foodgrains, sugar and fertilizers occupy 78 per cent of the total utilized storage capacity, in the remaining 22 per cent are stored cement, chemicals and other commodities. Warehouses of the corporation are fairly full all through the year.

Besides the conventional storage godowns, the Central Warehousing Corporation is running air-conditioned godowns at Kolkatta, Mumbai and Delhi, and provides cold storage facilities at Hyderabad. Special storage facilities have been provided by the Central Warehousing Corporation for the preservation of hygroscopic and fragile commodities. The Corporation has been able to evolve a technique for a proper and scientific preservation of jaggery during the hot and rainy seasons by selective aeration and controlled conditions. It has set up special warehouses at some centres for the storage of jaggery. The jaggery stored in warehouses fetches a premium price in the market. The Corporation has also evolved techniques for the storage of spices, coffee, seeds and other commodities.

The Corporation is operating a number of customs bonded warehouses at important centres in Delhi, Amritsar, Ludhiana, Kolkata, Kandla, Ahmedabad, Baroda, Surat, Bhopal, Cochin, Ernakulam and Mumbai to enable exporters/importers to keep their commodities in a good condition, pending their shipment. It has also undertaken the storage and handling of export and import cargo at the international air-port at Palam, New Delhi. At this complex, all the facilities, including inspection and clearance by customs, the payment of duty into the bank, and space for clearing agents, have been provided by the corporation. It has put up a similar air cargo complex at Amritsar for the export/import of goods. It has been expanding its capacity at the port towns to serve the industry and co-operative bodies. It has already established a sizeable capacity at Mumbai, Kolkata, Cochin, Chennai, Mangalore, Paradeep, Kandla, Haldia and Vizag.

The Corporation has introduced a scheme, called the Farmers Extension Service at selected centres to educate farmers about the benefits of a scientific storage and use of public warehouses. The Central Warehousing Corporation also provides a package of services, such as handling and transport, safety and security of goods; insurance, standardization, documentation, and other connected services and facilities.

Administrative Setup

The Corporate Office is located at "WAREHOUSING BHAWAN" 4/1 Siri Institutional Area, August Kranti Marg, New Delhi - 110016. CWC has 17 Regional Offices located in major state capitals of the country. The details of the Senior Executives is as under:

1. B.K. Saha, IAS (Retd.)
Chairman, Central Warehousing Corporation,
Tele: 91-11-26515980 Fax : 91-11-26962411
E-mail: chrmn.cwhc@nic.in ,
2. B.B. Pattanaik,
Managing Director, Central Warehousing Corporation,
Tele: 91-11-26515160 Fax : 91-11-26967844
E-mail: mdcwc@nic.in
3. G N Nair,
Director (Finance), Central Warehousing Corporation,
Tele: 91-11-26966295, 26566107 / 103 Fax : 91-11-26534146
E-mail: gnnair.cwhc@nic.in
4. G.Mathialagan, Director (Personnel), Central Warehousing Corporation,
Tele: 91-11-26852825, 26566107 / 104 Fax : 91-11-26850575
E-mail: dirpers.cwhc@nic.in
5. T.K. Doshi, Director (MCP), Central Warehousing Corporation,
Tele: 91-11-26967245 Telefax: 91-11-26518031
E-mail: dmcp.cwhc@nic.in
6. Vineet Pandey, Chief Vigilance Officer, Central Warehousing Corporation,
Tele: 91-11-26966219 Fax : 91-11-26964082 E-mail : cvo.cwhc@nic.in
7. Dr. S C Batra, OSD (Recovery), Central Warehousing Corporation,
Tele: 91-11-26851410 Fax : 91-11-26852248 E-mail :
8. O P Bharati, General Manager (Com), Central Warehousing Corporation,
Tele: 91-11-26967712 / 26850568, Fax : 91-11-26967712
E-mail: gmcomm.cwhc@nic.in, bharti.cwhc@nic.in
9. A V Jawakar, Secretary, Central Warehousing Corporation,
Tele: 91-11-26518013, 26566107 / 104 Fax : 91-11-26966268
Email: secycwc@nic.in
10. N K Grover, General Manager (F&A)
Central Warehousing Corporation,
Tele: 91-11-26515148, Fax : 91-11-26964082 E-mail: grover.cwhc@nic.in,
11. J V Bendre, Dy. General Manager (Per.) , Central Warehousing Corporation,
Tele: 91-11-26515178 Fax : 91-11-26967256

Our Services offered by CWC

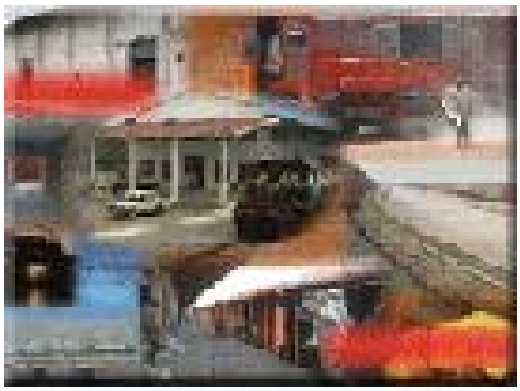
Scientific storage and handling services for more than 400 commodities include Agricultural produce, Industrial raw-materials, finished goods and variety of hygroscopic and perishable items. Scientific Storage Facilities for more than 200 commodities including hygroscopic and perishable items through network of 487 warehouses in India with its 5,765 trained personnel. Import and Export Warehousing facilities at its 36 Container Freight Stations in ports and inland stations. Bonded Warehousing facilities , Disinfestation services Handling, Transportation & Storage of ISO Containers.

CWC'S FORAYS INTO DEVELOPMENT OF RAILSIDE COMPLEXES

Railways has vast network for not only operating passenger trains but also for freight movement, an imminent need was assessed to augment the utilization level of Railway transportation system so as to reduce the pressure on road traffic by making it cost effective and efficient operation for the trade. As such, concept of Rail Side Warehousing facilities was evolved by the Corporation as value addition to the rail transport system which extends benefits to the users in avoiding multiple handling of their stocks and resultant escapable losses on this account; curtailing handling cost and having a hassle free efficient operation. For transforming the concept into tangible shape, CWC successfully developed a pilot project of Rail Side Warehousing facility at Whitefield, Bangalore in association with South Western Railway in February 2002 and on the strength of fruitful effect of this project on the front of increase in traffic/freight revenue and the kind of satisfaction that trade enjoyed out of it on availing this value added services in the arena of rail transportation, CWC and Ministry of Railway joined their hand in the avenue of developing Rail Side Warehousing facilities at 22 strategic locations of Railway Terminal to provide better services through total logistic solution to Rail users for, not only to attract additional traffic, but also to provide a cost beneficial and efficient transport cum storage service to the trade under single window concept.

Under the purview of MoU entered between MoR and CWC, the Corporation has commenced the expansion of RWC facilities at Whitefiled, Bangalore to meet even growing demand of users. The Corporation has started construction of RWC facilities at Nishatpura (Bhopal) - West Central Railway; Shakurbasti (Delhi); Alamnagar (Lucknow); Roza (Shahjahanpur) - all under Northern Railway and Sanathnagar (Hyderabad) - South Central Railway after the agreements entered with respective Divisional Railway Managers. A subsidiary in the name of "Central Railside Warehouse Company Ltd." was

incorporated on 10.07.2007, under the Companies Act 1956 which commenced its business on 24.07.2007.



Aircargo Complexes

Ambitious expansion of CWC over the years has also brought CWC in the operation of Aircargo Complexes which is a major step towards providing complete services as a multi-modal transport operator. Presently, CWC is operating 4 Aircargo Complexes at the International Airports of Amritsar, Goa, Singanallur and Virugambakkam besides managing the accompanied/mishandled cargo warehouse at Indira Gandhi International Airport at New Delhi.

Disinfestation and Pest Control Services

Govt. of India, vide Notification dated 23rd March 1968, entrusted additional responsibility to CWC to undertake Disinfestation/Pest Control Services beyond its warehouses in respect of Agricultural produce or other notified commodities.

Over the years, CWC has developed the expertise in Pest Management in the following areas

- Rodent Control
- House hold Pest Management- Cockroaches, Mosquitoes, House Flies, Bed Bugs, Spiders, Lizards, Carpet Beetles, Fleas, Crickets, Ants, Wasps, Locusts etc.
- Storage Pest Management.
- Anti-termite treatments (Pre & Post Construction)
- Container Fumigation.
- Ship Fumigation(on Board)
- Pre-shipment fumigation of Export Cargo
- Rail Coach disinfestations
- Aircraft disinfestations
- Hospital & Nursing Homes Treatments

- Disinfestations of Hotels & Restaurants
- Disinfestations of Commercial Complexes & Office premises.
- Disinfestations of Oil Refineries
- Disinfestations of Airports & Ports
- Disinfestations of Delhi Metro Rail Premises

CWC the only organization in the public sector recognized by the Directorate of Plant Protection Quarantine and Storage, Ministry of Agriculture, Govt. of India as well as the Export Inspection Council of India to undertake Pre-shipment fumigation and Ship (on board) fumigation of exportable commodities. CWC earned a major breakthrough in disinfestation of aircrafts of Air India using timer device. CWC has thus earned the status of a National Pest Control Agency.

CWC has taken lead in accreditation of its pest control operators under newly introduced National Standards on Phytosanitary Measures NSPM 11 & 12 to facilitate MBr fumigation treatment of export/import cargo carrying wood packaging material (WPM) in compliance to the FAO/IPPC guidelines issued through International Standard on Phytosanitary Measures ISPM -15. Under this accreditation regime, the Corporation is catering to quarantine treatments at the following major centres:-

CFS-JN Port , CFS-Tuticorin (Tamil Nadu), CFS-Chennai, CFS-Adalaj (Ahmedabad), CFS-Kandla Port (Gandhidham), CFS-Vizag, CFS-Whitefield (Bangalore), CFS-Panambur (Mangalore), ICD-Patparganj (Delhi), CW-Nampally (Hyderabad), CW-Kakinada (Hyderabad), CWC-Regional Office Bhopal, CWC-Regional Office Kolkata, CW-Cochin (Hyderabad), CWC-Regional Office- Mumbai.

Major clients of CWC for pest control services include:-Many leading grain exporters, shippers for containerized cargo, Indian Railways, Air India, Air Sahara, Air Deccan, Indian Airlines, Jet Airways, Airport Authority of India, Indian Oil Corporation, GAIL (India) Limited, Reserve Bank of India, AIIMS, Central Public Works Department, VSNL, ONGC, AIR etc

.

Pre-shipment fumigation and ship fumigation facilities are offered at the following ports:- Mundra, Kandla, Jamnagar, Pipavav, Mangalore / Karwar, Tuticorin, Visakhapatnam, Kakinada, Kolkata, Haldia, Navi Mumbai, Port Blair.

Some of the Grain exporters who have availed CWC's pest control services during the recent past include:-

Satnam Overseas, Cargill India Ltd., Adani Exports Ltd., MMTC, PEC, STC, Vicnivas Agencies, PUNSUP, Seaways, Bishan Swaroop Ram Kishan Agro, Olam International, LMJ International, SS Exports, V. Arjun, Vishal Exports, Ruchi Soya, VASS Exports, CWC also takes POD guarantee for off-loading pest free cargo at the foreign destinations (country of import) at a nominal cost in addition to the usual fumigation charges.

CWC is keen to enter into agreements with users for providing Pest Control Services as well as Strategic Alliance with other pest control service providers/firms dealing with pest control related activities for further widening its clientele. Pest Control Information Please contact:

Mr. Sher Jagjit Singh, Dy. General Manager, (Pest Control Services)
Central Warehousing Corporation, 4/1, Siri Institutional Area, August
Kranti Marg, Hauz Khas, New Delhi-110016.
Telefax: 011-26862977 Mobile: 9891937407 e-mail: cwcpcs07@gmail.com>

(c) State Warehousing Corporations (SWCs)

Separate warehousing corporations were also set up in different States of the Indian Union. The first state warehouse was set up in Bihar in 1956. At the end of March 2001, State Warehousing Corporations were operating 1440 warehouses with a total capacity of over 131.38 lakh tones.

The area of operation of the State Warehousing Corporations are centres of district importance. The total share capital of the State Warehousing Corporations is contributed equally by the concerned State Governments and the Central Warehousing Corporation. The SWCs are under the dual control of the State Government and the Central Warehousing Corporation.

Working of Warehouses

Acts: The warehouses (CWC and SWCs) work under the respective Warehousing Acts passed by the Central or State Governments. They are lincensed under the provisions of the Act.

Eligibility: Any person may store notified commodities in a warehouse on agreeing to pay the specified charges. The person is required to bring his produce to the warehouse for storage. The commodity is inspected, and the quality of the product is determined.

Warehouse Receipt (Warrant): This is a receipt/warrant issued by the warehouse manager/owner to the person storing his produce with them. This receipt mentions the name and location of the warehouse, the date of issue, a description of the commodities, including the grade, weight and approximate value of the produce based on the present price.

The warehouse warrant is a negotiable instrument and can be transferred by a simple endorsement and delivery. A delivery of part of the goods may be taken through this warrant by the depositor. Sometimes, the warrant may be non-negotiable.

Use of Chemicals: The produce accepted at the warehouse is preserved scientifically and protected against rodents, insects and pests and other infestations. Periodical dusting and fumigation are done at the cost of the warehouse in order to preserve the goods.

Financing: The warehouse receipt serves as a collateral security for the purpose of getting credit. Commercial banks advance up to 75 per cent of the value of the produce stored in the warehouse.

Delivery of Produce: The warehouse receipt has to be surrendered to the warehouse owner before the withdrawal of the goods. The holder may take delivery of a part of the total produce stored after paying the storage charges.

The main provisions of the Act governing the grant of a license to run warehouses were: (a) Any person, including a company, association or corporate body may apply to the State Government for the grant of a license to carry on the business of warehousing.

(b) The government grants the license after examining the warehouse building and the financial soundness of the party, and after the realization of the prescribed fees.

(c) The license has to be renewed periodically on payment of prescribed fees.

(d) The warehouse owner is authorized to receive only notified commodities for storage in his warehouse and issue receipts in a prescribed form.

(e) It is the responsibility of the warehouse owner to keep the premises clean, keep different lots of goods separately in the warehouse, and carry on such operations as are necessary to protect the goods against losses from damage and pilferage.

Number and Capacity of Warehouses

The Government, the Food Corporation of India, Co-operative Marketing Societies and Central and State Warehousing Corporations have taken important measures for the creation of warehousing facilities in the country. As a result, a large number of warehouses/godowns have been built throughout the country in all important rural and urban centres, metropolitan cities, ports and railway stations.

(a) Central and State Warehousing Corporations (CWC and SWC)

The number and capacity of warehouses of CWC and SWC in the country at different points of time have been given in Table 7.1.

Table 7.1

Number and Capacity of Warehouses in India (including hired)

Year	Number			Capacity in Lakh Tonnes		
	CWC	SWC	Total	CWC	SWC	Total
1957-58	7	-	7	0.07	-	0.07
1960-61	40	266	306	0.79	2.78	3.57
1970-71	102	601	703	8.36	18.11	26.47
1980-81	330	1050	1380	37l89	50.00	87.89
1990-91	495	1331	1826	66.48	93.54	160.02
1992-93	465	1350	1815	64.41	90.74	155.15
1993-94	458	1364	1822	63.73	95.58	159.31
1994-95	457	1370	1827	64.31	101.72	166.03
1995-96	458	1371	1829	69.24	114.71	183.95
199-00	451	1440	1891	74.79	123.74	198.53
2000-01	466	1639	2105	83.91	148.99	232.90
2001-02	475	1540	2015	89.17	815.49	274.66

Source: a) Central Warehousing Corporation of India; quoted in Fertilizer Statistics, Various issues, Fertilizer Association of India, New Delhi, December 1994, p.111-64, and Economic Surveys, Various issues, Government of India, New Delhi.

b) Government of India, Annual Report, 1995-96, and Foodgrains – Monthly Bulletin, July 1996, Ministry of Food, New Delhi.

Considerable efforts were made to increase the storage capacity in the country. The number of warehouses, which had increased from only seven during 1957-58, to 306 during 1960-61, and 703 during 1970-71, went up to 1380 during 1980-81 and

further to more than 2000 during 2001-02. The total capacity of warehouses which was almost negligible during 1957-58 went up to 275 lakh tones at the end of March 2002. Out of the total storage capacity of 275 lakh tones, nearly 89 lakh tones was with the Central Warehousing Corporation and remaining 186 lakh tones with State Warehousing Corporations.

The number of commodities stored in the warehouses has steadily increased. These include foodgrains, fibre crops, fertilizer, cement, rubber, cotton yarn, textiles, paper and leather.

Food Corporation of India

An efficient management of the food economy with a view to ensuring an equitable distribution of food grains at reasonable prices to the vulnerable sections of society is essential in the present socio-economic environment of the country. The government felt the necessity of an organization which can act as its main agency for handling food grains, acquire a commanding position in the food grain trade as a countervailing force to the speculative activities of private traders and, at the same time, work on commercial lines. Towards the end of 1964, Parliament decided to transfer the government's function of trading in food grains to the public sector. Legislation was enacted; and the Food Corporation of India (FCI) was born on January 1, 1965.

OBJECTIVES

- Effective price support operations for safeguarding the interests of the farmers.
- Distribution of food grains throughout the country for public distribution system
- Maintaining satisfactory level of operational and buffer stocks of food grains to ensure National Food Security

In its 45 years of service to the nation, FCI has played a significant role in India 's success in transforming the crisis management oriented food security into a stable security system. FCI's Objectives are:

- To provide farmers remunerative prices
- To make food grains available at reasonable prices, particularly to vulnerable section of the society
- To maintain buffer stocks as measure of Food Security
- To intervene in market for price stabilization

OPERATIONAL NETWORK

FCI operates through a country-wide network with its Corporate Office in New Delhi, 5 Zonal Offices, 23 Regional Offices practically in all the State capitals, 165

District Offices(as on 01.10.2008) and 1470 depots (as on 01.01.2007). Most of the Revenue Districts in the country are covered by FCI. It has a manpower of 33,473 officers and staff /employees as on 31.03.2010 and about 53,646 regular food handling workers besides approximately one lakh food handling contract labourers being engaged by the Handling & Transport Contractors, as on 31.03.2010. The general superintendence, direction and management of the affairs and business of the Corporation shall vest in a board of directors which exercise all such powers as may be exercised or done by the Corporation under this Act. The board of directors, in discharging its functions, act on business principles having regard to the interest of the producer and consumer and shall guided by such instructions on questions of policy as may be given to it by the Central Government.

Today, the FCI is the unrivalled food marketing agency, serving the interests of both the farmers and consumers. Its market operations prevent the speculative trader from acting against the interest of the farmer by assuring him a remunerative price for his produce. It ensures a prompt and uninterrupted supply of food grains to the vulnerable sections of society all over the country. Operationally, the FCI reaches the remotest corners of the country through its vast network of offices and storage centres. Financially, it is one of the largest public sector undertakings, with an annual turnover of over Rs.25400 crores.

Functions

The main functions of the Food Corporation of India are:

(a) To procure a sizeable portion of the marketable surplus of foodgrains and other agricultural commodities at incentive prices from the farmers on behalf of the Central and State Governments;

(b) To make timely releases of the stocks through the public distribution system (fair price shops and controlled items shops) so that consumer prices may not rise unduly and unnecessarily;

(c) To minimize seasonal price fluctuations and inter-regional price variations in agricultural commodities by establishing a purchasing and distribution network; and

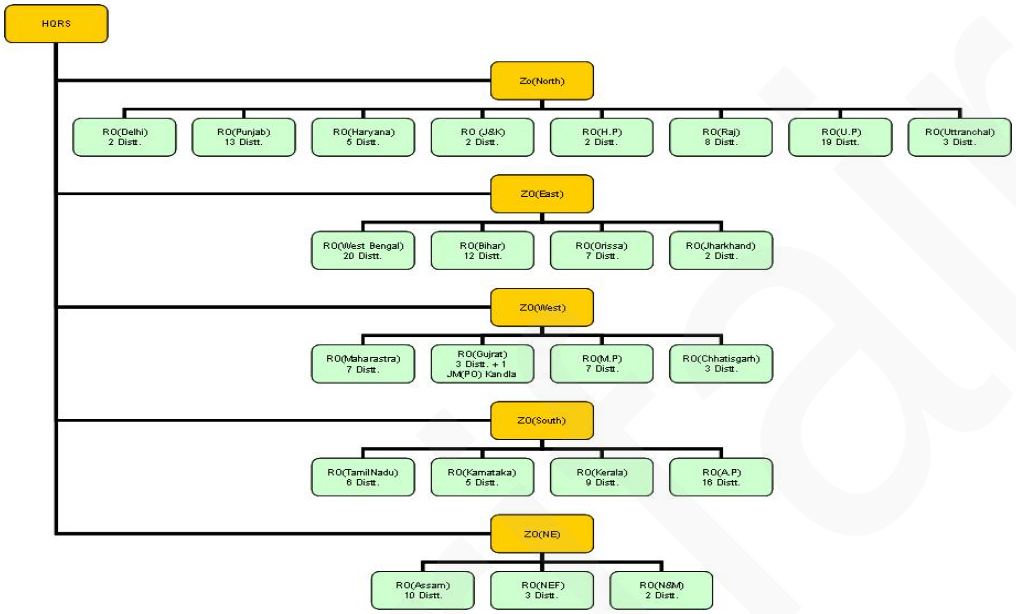
(d) To build up a sizeable buffer stock of foodgrains to meet the situations that may arise as a result of shortfalls in internal procurement and imports.

Growth and Structure

The Corporation discharges its responsibility to the nation through a country wide network of offices and points of contact, it is divided into five zones, each region

generally coinciding with the geographical boundary of a State. Each region has district offices. The Corporation now has five zonal offices, 19 regional offices, four sub-regional offices, four offices of Joint Managers (operations), 173 district offices, and thousands of operating points throughout the country for its purchase and distribution operations.

Organisational Structure of FCI



The tremendous growth of the organization is the direct result of the staggering increase in the volume of its business. The progress of the FCI in various areas may be assessed from the following:

(i) Procurement

The Food Corporation of India undertakes the procurement of food grains on behalf of the Government of India and State Governments in the States where it has been entrusted with this responsibility either as a sole agency or jointly with other public procurement agencies. It also undertakes massive price support operations for cereals on behalf of the Central and State Governments to protect the interests of the growers. It prevents distress sales by ensuring to the farmers, predetermined procurement/support prices. It also handles huge stocks of food grains procured by other agencies for the central pool, and utilizes the services of co-operative societies to the maximum extent possible.

The Food Corporation of India purchases food grains from producers during both the seasons, directly or through the agency of co-operatives or purchasing agents, and from millers under various arrangements of procurement determined by different State Governments. The quantities procured in different years by the Food Corporation of

India are given in Table 7.2. A glance at the procurement of food grains by the Corporation would show the vital and effective role it has played in the national economy. Commercial purchases of some commodities, *viz*., cereals and pulses, are also made by the Corporation at market prices with a view to supplying them to the defense services.

Table 7.2

Procurement of Food grains by Food Corporation of India

(thousand tones)

Calendar year	Rice	Wheat	Coarse grains	Total
1965	2951	375	705	4031
1970	3043	3183	488	6714
1975	5042	4098	423	9563
1980	5210	5866	102	11178
1985	9568	10355	184	20107
1990	12792	11094	105	23991
1995	9997	12327	-	22324
1995-96*	10047	12327	-	22374
1996-97*	12960	8157	-	21117
1997-98*	15486	9298	-	24784
1998-99*	12590	12652	-	25242
1999-00*	18207	14143	-	32350
2000-01*	20824	16356	-	37180
2001-02*	22129	20630	-	41910
2005-06	14785	27656	1154	43595
2006-07	9226	25107	0.20	34333
2007-08	11127	28491	203	39821
2008-09	22682	33683	1375	57740
2009-10	25382	23687**	320**	49389**

*Figures are for marketing year (October-September for rice and April-March for wheat)

Source : (i) Govt. of India, Department of Food, New Delhi.

(ii) Govt. of India, Agricultural Statistics, At a Glance, 2002 and 2003, New Delhi.

(iii) ** As on 8.3 2010

(ii) Storage

The provision of adequate and proper scientific storage facilities for food grains from the time of procurement till their distribution is another important function performed by the Corporation. Its responsibility for storage has increased with the transfer to it of the responsibility for building up a buffer stock by the government. Food grains are stored in go downs which are scientifically constructed for protection against dampness, rats and fungus.

Till the beginning of 1968, there had been a more or less complete ban on the construction of new go downs. With the onset of the green revolution, there was an urgent necessity of augmenting substantially the storage facilities for food grains at the production and consumption centres. The Corporation, therefore, launched a crash programme for the construction of go downs. It also encouraged private parties to construct modern food grain go downs on a guaranteed occupation basis. Constant and effective inspection and treatment of food grains in storage ensures that the stocks are kept in good condition. New and cheap methods for the preservation of stocks have been developed by the technical experts of the Corporation. Storage losses in FCI go downs have been brought down to less than one per cent as against its former very high percentage loss (up to 10%). The activities undertaken by the FCI for this purpose are:

(a) It has constructed 28.30 million tones of storage capacity – well-built go downs, silos and CAP (Cover and Plinth) located at strategic points near the production and consumption centres and major ports. CAP storages are in large open areas and are scientifically planned to hold thousands of bags of grains under polythene covers.

(b) The FCI has taken over the construction of silos in order to switch over to the bulk handling and storage of food grains in a phased manner. Silos are tall and massive structures with huge storage facilities and facilities for mechanical handling. As a result, the losses arising out of handling are reduced. As a result, the losses arising out of handling are reduced. Handling charges, too, are brought down. The construction of silos has been taken up in Punjab, Haryana, Uttar Pradesh and Delhi.

(c) The FCI uses air strips, army barracks and former palaces for the storage of food grains during the massive procurement season.

(d) The FCI has a chain of 138 quality control laboratories which develop quality control measures to ensure the safe storage of food grains. In addition, scientists, technicians and workers air, rotate and fumigate stocks at regular intervals so that quality does not deteriorate.

Storage Capacity with FCI

(in Million Tonnes as on 1st April)

Capacity.	2003	2004	2005	2006 Covered	2007	2008	2009
Owned	12.82	12.82	12.91	12.93	12.94	12.95	12.97
Hired	13.77	10.85	10.46	9.90	9.34	8.71	12.01
Total	26.59	23.67	23.37	22.83	22.28	21.66	24.98
CAP (Cover and Plinth)							
Owned	2.26	2.21	2.25	2.21	2.29	2.20	2.31
Hired	2.88	1.36	0.41	0.51	0.63	0.03	0.42
Total	5.14	3.57	2.66	2.72	2.92	2.23	2.73
Grand Total	31.73	27.24	26.03	25.55	25.20	23.89	27.71

(iii) Transportation

The Food Corporation of India organizes swift and massive movement of food grains, both by rail and road, to ensure timely arrivals in the areas of consumption and of storage. This activity of the Corporation enables it to maintain a steady public distribution system – from the procurement centres and the ports to the areas of consumption and storage without any serious difficulty. It is one of the largest users of the railways. The quantity transported by rail and road during 1966-67 was 1.238 million tones, which increased to an average of more than 20 million tones during the last five years.

(iv) Imports

The Food Corporation of India handles the entire quantity of imported foodgrains at all major ports. This responsibility was entrusted to it by the government in 1969-70. The imported food grains are speedily dispatched to various destinations to avoid congestion at the ports and to augment supplies to the public distribution system.

(v) Distribution

Another important function of the Corporation is the distribution of procured/ imported food grains through nearly 4.91 lakh fair price shops all over India. Food grains are issued on the basis of the allocations made by the Central Government. The Food Corporation of India makes food grains available to the vast majority of population at reasonable prices. The quantity of food grains distributed through public distribution and open sales has varied between 17.4 to 25.8 million tones during the last 5 years.

(vi) Processing

The Food Corporation of India has made notable strides in the field of food processing. It has acted as a pace-setter in the modernization of food processing operations. It has set up 24 modern rice mills in different States to increase the availability of rice and extract oil from rice bran. It has also set up a Paddy Processing Research Centre at Tiruvarur in Tamil Nadu in collaboration with the Government of Tamil Nadu and the Union Ministry of Agriculture with a view to evolving a new technology for increasing the outturn of rice at rice mills, better utilization of bran for the extraction of edible oil and proper use of by products. A solvent extraction plant at Sembanarkoil (Tamil Nadu) has also been set up for the manufacture of edible and industrial grade oil from rice bran. These have served as models for private interests in this line to set up such mills elsewhere.

The Corporation has set up paddy dryers in Thanjavur district in Tamil Nadu and a maize dryer at Khanna in Punjab to dry the grain and transport it to other districts without any damage by quick sprouting diseases which break out because of high moisture content. The FCI has also set up a solvent extraction plant at Ujjain (M.P.) to process groundnut. The FCI has set up a maize mill at Faridabad (Haryana) to manufacture a variety of maize products. It has set up a dal mill at Lucknow (U.P.) to meet the purchase requirements of the army.

The FCI also produces (about 40,000 tonnes per annum) a protein-rich food (Balahar), a midday meal for school children, Balahar is a mix of wheat flour, groundnut meal, vitamins and minerals.

(vii) Consultancy

The Food Corporation of India has taken a new function of consultancy service, and provides technical and scientific assistance to other public and private undertakings as well as co-operatives in the country and abroad. The consultancy service offers assistance in the modernization of rice and dal mills and other agro-processing units. The service includes the conduct of feasibility and technoeconomic studies, management systems and optimization studies, and market surveys.

(viii) The corporation also collects and manages levy sugar on behalf of the government of India.

Buffer Stocking, Procurement and Distribution of Food grains

Buffer Stocks

The term buffer stock of food grains refer to the stock of food grains maintained by the government to be used as a buffer to cushion the shocks of fluctuating supply and price, to meet the emergency needs and to meet the situations arising out of serious unexpected shortages resulting from transport bottlenecks, natural calamities like war, flood, famine, earthquakes, and from the influx of refugees.

The main advantages of maintaining a buffer stock are:

(i) It helps in the stabilization of prices by counteracting the effects of the activities of speculators and hoarders;

(ii) It safeguards the producers against low prices, specially during the surplus-production years; and

(iii) It imparts stability to the country's food economy.

The government enters the market and purchases food grains for the maintenance of the buffer stock. This buffer stock can be built either by internal purchases or by imports from foreign countries. It is maintained by the Food Corporation of India and has averaged more than 10 million tones annually since 1976, as against a normal stock of less than 5 per cent tones before that year. After 5 years of a very comfortable position in food grains, the year 1981 witnessed some tightening in the supply position. The all-time record off take of 14.9 million tones in 1980, the relatively low procurement of 11.2 million tones, and the estimated exports of 2 million tones of food grains in repayment of a wheat loan led to a sharp decline in the size of stocks. The procurement of wheat boosted the food grains stocks to 13.5 million tones by the end of July 1981. These stocks, though adequate, were well below the level during the five years from 1976 to 1980.

In mid-eighties, a buffer stock of 10 million tones comprising 5 million tones of wheat and equal quantity of rice was considered adequate. It should be noted that this buffer stock is over and above the operational stocks. Considering both together, a stock of around 20 million tones was considered necessary for a country of India's size. However, the stock, which can be considered optimum, depends on the level of public distribution of food grains intended by the government. On July 1, 1990, the food rains stock with the government of India was 20.3 million tones. But on the same day, a year before (July 1, 1980), the stock was only around 13 million tones.

Apart from CWC and SWCs, the Food Corporation of India has also created storage facilities. The Food Corporation of India has a storage capacity of 21 million tones. Most of the capacity is of covered type which include conventional but scientifically designed godowns and silo complexes but a part of the storage capacity is of covered and plinth (CAP) type. The CAP storage capacity consists of cemented floor as the base and tarpaulins or other similar sheets as the cover (Table 7.3).

Table 7.3

Storage Capacity of Food Corporation of India

(Lakh Tonnes)

At the end of		Covered	Cover and Plinth (CAP)	Total
1990-91	Owned	119.97	10.42	130.39
	Hired	75.95	14.74	90.69
	Total	195.92	25.16	221.08
1995-96	Owned	168.24	57.66	225.90
	Hired	40.29	-	40.29
	Total	208.53	57.66	266.19
2001-02	Owned	126.10	83.38	209.48
	Hired	141.07	-	141.07
	Total	267.17	83.38	350.55

Source: Food Corporation of India, New Delhi and Ministry of Food, Government of India, New Delhi.

PROCUREMENT OF RICE FOR CENTRAL POOL (Marketing Season: October-September)

PROCUREMENT OF RICE FOR CENTRAL POOL

(Figures in lakh tonnes)

	Procurement		
Year	**FCI**	**State Agencies**	**Total**
2005-06	109.77	166.80	276.56
2006-07	168.85	81.90	250.75
2007-08	124.28	160.65	284.93

2008-09	27.63	309.22	336.85
2009-10*	10.55	143.07	153.62

*Position as on 31.12.2009

PROCUREMENT OF RICE (INCLUDING PADDY IN TERMS OF RICE)

Total Procurement during KMS 2009-10 = 153.62

Total Procurement during KMS 2008-09 = 152.00

	2009-10		2008-09	
State	**Quantity**	**% of Quantity Procured**	**Quantity**	**% of Quantity Procured**
Andhra Pradesh	9.01	5.87	14.80	9.74
Chhattisgarh	11.28	7.34	10.21	6.72
Haryana	18.03	11.74	13.75	9.05
Madhya Pradesh	0.40	0.26	0.61	0.40

Source: Annual Report-2009-10, Department of Food & Public Distribution

Procurement of Rice (Including Paddy in terms of rice) During KMS 2008-09 for the Central Pool

Total procurement = 336.85 lakh tonnes

State Procured	**Quantity Procured (in lakh tonnes)**	**% of Quantity to Total Procurement**
Andhra Pradesh	90.61	26.90
Chhatisgarh	28.48	8.45
Haryana	14.25	4.23
Madhya Pradesh	2.45	0.73
Maharashtra	2.61	0.77
Orissa	27.90	8.28
Punjab	85.53	25.39
Tamilnadu	11.99	3.56
Uttar Pradesh	36.87	10.95
Uttarakhand	3.49	1.04

Total	304.18	90.30
Others	32.67	9.70
Grand Total	336.85	100.00

The share of procurement of paddy by State Agencies out of the total procurement during KMS 2009-10(31.12.09) and 2008-09 in major States has been as under: -

State	Quantity Procured (In Lakh Tonnes)			% of Quantity Procured by State Agencies to Total
Agencies	FCI	State Agency	Total	% of state agency to others in the state
Andhra Pradesh	0.18	0.19	0.37	51.35
Chhatisgarh		3.48	3.48	100.00
Haryana	0.42	25.82	26.24	98.40
Madhya Pradesh		0.12	0.12	100.00
Maharashtra		0.29	0.29	100.00
Orissa	0.06	0	0.06	0.00
Punjab	6.69	131.15	137.84	95.15
Tamilnadu		0.33	0.33	100.00
Uttar Pradesh		1.44	1.44	100.00
Uttarakhand	NEG	0.05	0.05	100.00
Total	7.35	162.82	170.22	95.65
Others	0.21	1.09	1.30	83.85
Grand Total	7.56	163.96	171.52	95.59

The State-wise procurement of wheat and the share of different States during the last 5 years is given below:-

Total Paddy procured during KMS 2009-10 (As on 31.12.2009)

State	Quantity Procured (In Lakh Tonnes)			% of Quantity Procured by State Agencies to Total
	FCI	State	Total	
Andhra Pradesh	0.18	0.19	0.37	51.35
Chhatisgarh		3.48	3.48	100.00
Haryana	0.42	25.82	26.24	98.40

Madhya Pradesh		0.12	0.12	100.00
Maharashtra		0.29	0.29	100.00
Orissa	0.06		0.06	0.00
Punjab	6.69	131.15	137.84	95.15
Tamilnadu		0.33	0.33	100.00
Uttar Pradesh		1.44	1.44	100.00
Uttarakhand	NEG	0.05	0.05	100.00
Total	7.35	162.82	170.22	95.65
Others	0.21	1.09	1.30	83.85
Grand Total	7.56	163.96	171.52	95.59

Position as on 31.12.09

Procurement made by the State Agencies

State	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**
Haryana	45.29	22.29	33.50	52.36	69.24
M.P.	4.84	Neg	0.57	24.09	19.68
Punjab	90.10	69.46	67.81	99.40	107.25
Rajasthan	1.59	0.02	3.83	9.35	11.50
U.P.	5.60	0.49	5.46	31.37	38.80
Others	0.43	0.00	0.11	10.32	7.35
All India	147.85	92. 26	111.28	226.89	253.82

(c) Co-operative Sector

The co-operative sector has also built a storage capacity of 13.55 million tones up to March 2002. The co-operatives have also constructed 175 cold storage warehouses with a total capacity of 2.14 lakh tones. The National Co-operative Development Corporation had helped in contracting 55988 rural godowns and 9363

cooperative marketing godowns by the end of March, 2002. These co-operative godowns are used by the Food Corporation of India in times of need, and provide a readily available cushion when the procurement of foodgrains is at peak.

The spatial distribution of CWC, SWC, FCI and Cooperative marketing societies godowns constructed in the country is uneven across states with relatively poor storage facilities in the eastern states of the country. The available storage facility is also poor in the hilly and desert areas.

Table 7.4

Storage Capacity Available in India 2000-01

(Million Tonnes)

Storage Capacity Created by the Agency	Storage capacity (owned)	
	1969	March 2001
1. Food Corporation of India and Department of Food	3.68	15.0
2. State Governments	2.66	-
3. Central Warehousing Corporation (CWC)	0.96	6.5
4. State Warehousing Cooperations	0.83	11.2
5. Cooperatives	2.60	13.6
6. Rural Godowns and Godowns Created by Marketing Societies	-	13.5
7. Others	-	10.3
Total Storage Capacity	10.91	70.1

Source:(i) Government of India, Planning Commission, Fourth Five-Year Plan 1969-74, New Delhi, 1969, p.131 Quoted in the Book "Indian Foodgrains Marketing by Moore, John R; Johl, S.S. and Khusro, A.M., Prentice Hall of India, New Delhi, 1973, p.127.

(ii) Report of the Expert Committee on Strengthening and Developing of Agricultural Marketing, Ministry of Agriculture and Cooperation, Government of India, New Delhi, June 2001.

(iii) Planning Commission, Tenth Five Year Plan (2002-07), pp.548.

(d) Total Storage Capacity in India

There are three main agencies, which are involved in the creation of storage facility in the public sector in the country *viz*., Food Corporation of India, Central

Warehousing Corporation and State Warehousing Corporations. Cooperative Marketing Societies also provide storage facilities at the primary marketing level. Recently rural godowns have also been constructed in rural areas under the Gramin Bhandaran Yojana initiated by the Government of India.

Total storage capacity available in India is shown in Table 4.14.

Total storage capacity available in the country in 1969 was only 10.9 million tones. This has increased in 70.1 million tones in 2000-01. However, this is considerably short of the requirements. The available storage capacity is sufficient only for 30 per cent of total foodgrains production provided cent per cent of the available capacity is utilized only for the storage of foodgrains. Private sector has also created facilities for storage of agricultural commodities nearby their place of business but most of these storage structures are unscientific and are located in the congested lanes of cities/towns. Union Budget 2010 of India announced that deficit in the storage capacity would be met through an ongoing scheme for private sector participation – FCI to hire godowns from private parties for a guaranteed period of 7 years.

The storage plan of the Ministry aims at providing the capacity required for buffer and operational stock of food grains to maintain the public distribution system and general warehousing.. The Board approach is to provide scientific storage capacity and reduce dependence on the capacity under cover and plinth. The Ministry has also been making efforts to improve the traditional storage practices in vogue at the farm level.

Food grain Storage and General Warehousing there are three agencies in the public sector which are engaged in building large scale storage/warehousing capacity namely. Food Corporation of India (FCI) Central Warehousing Corporation (CWC) and 17 State Warehousing Corporation (SWCs). Over a period of time sizeable scientific storage/warehousing capacity has been developed by these public sector agencies and they are implementing plans to increase it further. While the capacity available with FCI is used mainly for storage of food grains that with CWC and SWCs is used for storage of food grains as well as certain other items.

Table 7.5

Storage capacity of FCI , CWC and SWCs 01.02.2010

(Figure in lakh MT)

State	FCI	CWC	SWC	Grand Total
Andhra Pradesh	37.87	15.87	19.33	73.07
Arunachal Pradesh	0.22	0.00	0.00	0.22

Assam	2.71	0.65	2.50	5.86
Bihar	6.71	1.24	2.65	10.60
Chhatisgarh	8.28	2.79	8.33	19.40
Delhi	3.67	1.51	0.00	5.18
Goa	0.15	0.41	0.00	0.56
Gujrat	6.62	7.95	1.52	16.09
Haryana	23.44	5.07	16.81	45.32
Himachal Pradesh	0.25	0.07	0.00	0.32
Jammu & Kashmir	1.29	0.00	0.00	1.29
Jharkhand	1.20	0.35	0.00	1.55
Karnatka	8.44	6.70	9.18	24.32
Kerala	5.37	1.23	2.02	8.62
Madhya Pradesh	10.56	5.36	18.86	34.78
Maharashtra	19.18	16.98	13.66	49.82
Manipur	0.20	0.00	0.00	0.20
Meghalaya	0.26	0.00	0.11	0.37
Mizoram	0.23	0.00	0.00	0.23
Nagaland	0.28	0.13	0.00	0.41
Orissa	6.60	3.16	4.09	13.85
Punjab	69.76	6.69	52.07	128.52
Rajasthan	15.53	3.99	7.67	27.19
Sikkim	0.11	0.00	0.00	0.11
Tamilnadu	9.70	6.32	6.37	22.39
Tripura	0.51	0.24	0.00	0.75
Union Territories	3.51	0.22	0.00	3.73
Uttar Pradesh	26.55	11.65	32.60	70.80
Uttara Khand	2.38	0.71	0.00	3.09
West Bengal	11.10	6.38	2.50	19.98
Grand Total	282.68	105.67	205.24	588.62

The capacity of the FCI includes101.08 lakh MT capacity hired from the CWC and SWCs. Details of the Storage capacity constructed by FCI and CWC over years are given. **Storage capacity constructed by FCI and CWC over years**

Agency	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
FCI	0.94	1.32	0.97	0.23	0.20	0.17	0.02
CWC	3.59	2.98	1.17	2.78	3.78	2.40	0.54
Total	4.53	4.30	2.14	3.01	3.98	2.57	0.56

Capital Structure

The authorized share capital of the Corporation is Rs.100.00 crores. There has been no change in the Corporation's subscribed share capital and the paid up share capital during 31.03.2009 is Rs.68.02 crores.

Physical Performance

Growth in Storage Capacity

As would be seen from the following table 7.6 below, the owned warehousing capacity with the Central Warehousing Corporation has grown over the years.

Table 7.6

Owned and Hired Warehousing Capacity with CWC

(in Lakh Tonnes)

As on	Owned	Hired	Total
31.03.2000	54.47	20.32	74.79
31.03.2001	56.12	27.79	83.91
31.03.2002	58.89	30.28	89.17
31.03.2003	63.53	27.61	91.14
31.03.2004	65.46	28.70	94.16
31.03.2005	66.57	35.29	101.86
31.03.2006	66.61	33.77	100.38
31.03.2007	66.99	35.21	102.70

31.03.2008	67.63	31.15	98.78
31.03.2009	67.60	37.65	105.25
01.02.2010	67.91	38.56	106.47

Capacity Utilisation

The average utilization of the Warehousing Capacity of the Corporation during the year 2009-10 has been to 86 % upto 01.02.2010).

Diversification

Over the years, the Corporation had diversified its activities.. As on 31.03.2009 it had 75 Custom Bonded Warehouses & (as on 01.02.2010 72 Custom Bonded Warehouses.) To cater to the needs of export trade it is operating Air Cargo Complexes at Amritsar, Goa , Singanallur and Virugambakkam , Truck Terminal at a land custom station at Petrapole on Indo Bangladesh Border . Holds a Category – I Pan India license to operate container trains . The CWC is also operating 36 Inland Container Deport ICD/ Container Freight Station (CFS)

FINANCIAL PERFORMANCE

Turnover Profit and Dividend The turnover increased from RS 255.64 crores in the year 1998-99 to RS 849.25 crores during the year 2008-09 . The Corporation has been consistently earning profits and paying dividends to the Government of India and other stakeholders. The Corporation has been making profits and paying dividends consistently.

Receipts for Food Corporation of India in Rs. crores

Year	Turnover	Net Profit(Pre-tax)	Central Govt.	Others	Total
1998-99	255.64	41.50	4.49	3.67	8.16
2000-01	276.34	48.30	4.49	3.67	8.16
2001-02	339.86	73.33	7.49	6.11	13.6
2002-03	379.94	90.72	7.49	6.11	13.6
2003-04	471.08	47.62	4.12	3.36	7.48
2004-05	522.87	60.42	4.50	3.65	8.15
2005-06	619.5	71.00	7.86	6.40	14.26
2006-07	686.44	133.80	10.10	8.23	18.33
2007-08	778.23	154.76	11.23	9.14	20.37
2008-09	849.25	110.44	11.23	9.16	20.39

Internal Resources

The Corporation has been generating internal resources which have grown significantly over the years and are sufficient for funding its own storage construction programmed as well as contributing to the State Warehousing Corporation equity.

The Central Warehousing Corporation has 17 associates in the State Warehousing Corporations offers with operated capacity 315.25 Lakh MTs at 1993 locations . The Total investment of the Central Warehousing Corporation, is Rs. 60.12 crores shareholder in the equity of State Warehousing Corporation as on 31.03.09. The State Warehousing Corporation paid a total dividend of Rs. 268.88 crores to the Central Warehousing Corporation during 2008-09 .

The cover storage capacity available with the State Warehousing Corporation is given in following table. (in Lakh Tonnes)

As on	Owned	Hired	Total
31.03.2000	82.20	41.54	123.74
31.03.2001	105.80	41.33	147.13
31.03.2002	104.28	58.50	182.78
31.03.2003	151.55	47.76	199.31
31.03.2004	158.05	48.76	206.81
31.03.2005	128.84	66.36	195.20
31.03.2006	127.64	69.41	197.05
31.03.2007	119.55	72.65	192.20
31.03.2008	124.27	63.05	187.32
31.03.2009	126.30	70.52	196.82
01.02.2010	133.08	72.16	205.24

Utilization of Warehousing Capacity

The utilization of warehousing capacity of the Central Warehousing Corporation was only 42 per cent in 1959-60, which increased over time to 96 per cent in 1970-71. The utilization of the capacity of State Warehousing Corporations increased from 64 per cent in 1960-61 to 75 per cent in 1968-69. At present, about 85 per cent of their storage capacity is being utilized. Of the total storage capacity with CWC, 57 per cent is utilized for foodgrains, seven per cent for fertilizers and 36 per cent for other purposes. But the available storage capacity, is mostly utilized by traders or public agencies. A study has indicated that only 29 per cent of the warehousing capacity of the Central Warehousing

Corporation and six per cent of that of State Warehousing Corporations was utilized by farmers or their cooperatives.

The main reasons for the very low utilization of warehouses by farmers are:

1. Lack of knowledge about the facility of warehousing available for the farmers;

2. Locational disadvantages for warehouses to most of the cultivators located in villages;

3. Complicated and time-consuming procedure of depositing and withdrawing the produce from the warehouses;

4. Non-existence of nationalized banks in villages and the problem of arranging finance at the time of taking delivery of the receipt from the bank; and

5. Small quantity of surplus produce available with most farmers, and the pressing need for finance.

These apart, there are some fundamental factors responsible for lower use of warehouses and consequent slow progress in rural areas.

Causes of slow progress

The following are the main causes of the slow progress of warehousing in the agricultural sector in India:

(i) Indian farmers are small landowners. Obviously, the marketed surplus available with them in small. Often, it is not worthwhile for them to store the produce in a warehouse;

(ii) Indian agriculture is largely dependent on the monsoon and occasional failures of crops in one or another part of the country are common resulting in lack of regular business for the warehousing;

(iii) Agricultural products are more perishable than industrial products;

(iv) Agricultural commodities are heterogeneous. Their grading is, therefore, essential before placing them in a warehouse. This facility is not available in most of the markets;

(v) The warehouses are located in urban centres, near railway stations and big cities. The transport facility from the villages to these centres is not easily available;

(vi) The cost of warehousing per unit of the produce is high;

(vii) Warehouse receipts are papers having no intrinsic value, unless the lenders are sure that these receipts are backed by tangible assets. Often, the lenders are not interested in lending against this collateral security.

In this context, it must be recognized that storage of the produce is at a cost. It is not only the charges of the warehouse that are to be paid but also the interest on the value of the produce and the premium for risk of a lower price at a later date are to be met. With the prevailing rate of interest, the interest component of the storage cost is no less significant. Moreover, the intra-year price rise may not cover the entire cost of storage every year. The probability of returns from storage being positive is not one. This means that the gains from storage depend on the decision on the timing of the purchase and sale. This necessitates acumen of astute trading, which every farmer does not possess. This apart, farmers in surplus-producing states like Punjab and Haryana sell their produce at the minimum support price to the public agencies and as the minimum support price remains the same till the next harvest season, such farmers do not gain by storing the produce, unless open market prices in the lean season rise to such levels as to cover the cost of storage and still leave a margin as an incentive to store, which rarely happens. The worry on low utilization of warehouses by the farmers should be seen in this light. Even if the facility is utilized by the traders, it indirectly helps the farmers by way of augmenting the demand for commodities stored by the traders.

Suggestions

The projected availability of food grains and the currently available storage capacity in India show that there is big gap in storage capacity. This gap has to be bridged as early as possible if advantage is to be taken of the benefits of increased agricultural production. The Union Government, therefore, constituted a Working Group on Warehousing to go into this question. The Working Group, in its report submitted to the Ministry of Agriculture made the following recommendations:

(i) A network of rural storage centres should be built on a priority basis in order to prevent distress sales, wastage and loss arising out of inadequate and defective storage facilities;

(ii) These storage centres may be constructed and managed by panchayats, co-operatives and other suitable agencies selected by the State Government;

(iii) These centres may have a storage capacity of 100 to 250 tonnes, mainly for foodgrains and other agricultural produce;

(iv) The cost of the construction of these structures, may be met by a 50 per cent subsidy and 50 per cent bank loans. Out of the subsidy part, 35 per cent may be borne by the Central Government and 15 per cent by the State Government.

(v) Each rural storage centre should have a manager, preferably from the area served by the centre. The manager should be trained in the basic essentials of warehousing by attaching him to a warehouse of the CWC or SWC;

(vi) Technical guidance, supervision and assistance in the design, construction and management of the centres should be provided by the CWC/SWC free of charge, or at a nominal charge;

(vii) Farmers should be provided with receipts for the commodities stored by them. Each receipt should be a negotiable instrument to enable them to obtain credit from banks;

(viii) The banks should provide credit to the extent of 90 per cent of the value of the stocks stored by the farmers; and the credit should be provided at concessional rates of interest;

(ix) The scheme of rural storage centres should be linked with the procurement machinery for foodgrains and also with the public distribution system, and

(x) The programme should be co-ordinated by a state level co-ordination committee, of which representatives of State Governments, the department of agriculture, rural development, co-operation and panchayats, the SWC, FCI and nationalized banks, should be the serving members.

However, it must be recognized that the success of the warehousing scheme depends on winning the confidence of the depositors and making people at all levels aware of the intrinsic merits of warehousing. Steps taken by the Government of India to overcome the problems in marketing of agricultural commodities include the following among others.

P rovide proje ct im port s ta tus with a conce s s iona l im port duty of 5 pe r ce nt for the setting up of mechanised handling systems and pallet racking systems in ‘mandis’ or warehouses for food grains and sugar as well as full exemption from service tax for the installation and commissioning of such equipment.

P rovide proje ct im port s ta tus a ta concessional customs duty of 5 per cent with full exemption from service tax to the initial setting up and expansion of ♦ Cold storage, cold room including farm pre-coolers for preservation or storage of agriculture and related sectors produce ; and Processing units for such produce.

P rovide full e xe m ption from cus tom s duty to re frige ra tion units re quire d for the manufacture of refrigerated vans or trucks.

P rovide conce s s iona l cus toms duty of 5 pe r ce nt to s pe cifie d a gricultura l m a chine ry not manufactured in India;

P rovide ce ntra l e xcis e e xe m ption to s pe cifie d e quipm e nt for pre s e rva tion, s tora ge and processing of agriculture and related sectors and exemption from service tax to the storage and warehousing of their produce; and

Cold Storages

The term cold storage refers to a refrigerated chamber for the storage of such perishable commodities as fruits, vegetables, fish, eggs, meat, dairy products, etc: In these storage structures, the temperature is controlled and maintained so that the stored perishable products may not deteriorate in quality. In a cold storage, the temperature is maintained in the range of -1.1^{o}C to 10^{o}C (30^{o} to 50^{o}F). The other form of cold storage is the freezer storage, in which the temperature is kept below 1.1^{o}C (30^{o}F), and the product remains in a frozen state.

In addition to the preservation of the quality of perishable products, the cold storage offers the following advantages:

(i) It makes possible the even placement of perishable commodities in the market. This would not have been possible without the cold storage facility.

(ii) It helps in the price stabilization of perishable commodities by removing the gluts occurring in the production season.

(iii) It helps in widening the market for the products, lowering marketing costs, raising the price realized by the producer and lowering the price to consumers, and ensures that products are available throughout the year.

(iv) Cold storage facilities have made it possible for consumer to live in greater comfort.

Till recently, the establishment of cold storage industry remained under regulation. The Central Government issued Cold storage Order in 1964 and later in 1980. However, some State Governments like that in West Bengal, Uttar Pradesh, Punjab and Haryana were permitted to promulgate their own orders. The Cold Storage Order was promulgated by the Government of India under Section 3 of the Essential Commodities Act, 1955. It was being administered by the Directorate of Marketing and Inspection to achieve the following objectives:

(i) To ensure hygienic and proper refrigeration conditions in the cold storage;

(ii) To regulate the growth of the cold storage industry in a planned manner;

(iii) To render technical guidance for scientific preservation of foodstuffs; and

(iv) To safeguard the interests of farmers and other depositors.

Cold Storage Order, 1964 and also of 1980 was applicable all over the country except in the States of Uttar Pradesh, West Bengal, Punjab and Haryana, where the State Governments have enacted their own Cold Storage Acts. West Bengal and Uttar Pradesh sought permission to enact their own Acts in 1960 and 1975. Punjab and Haryana Governments were permitted to promulgate their own State orders for regulating the cold storage industry in 1979.

Under the Cold Storage Order, the prospective entrepreneur was required to obtain the permission from the Agricultural Marketing Advisor to the Government of India for construction of a cold storage. With effect from 1st January, 1965, it was obligatory for a cold storage, with a capacity exceeding 8.50 cubic metres to obtain a licence before storing any foodstuff. The Agricultural Marketing Advisor to the Government of India was the authority under the Cold Storage Order, and it is he who is empowered to licence the setting up of a cold storage.

The Cold Storage Order, 1980 was rescinded in May, 1997. The repeal of the cold storage order of 1980 aimed at enabling the government in the removal of licensing, price control and requisitioning of the cold storage space with a view to allowing the functioning of free marketing mechanism for demand based growth of cold storage industry in the country free from all kinds of administrative interference.

Most of the cold storages are in the private sector. The National Commission on Agriculture in 1976 had recommended for adequate measures to be taken by co-operatives and public sector undertakings to provide cold storage facilities in production areas and terminal markets. As a follow-up, the National Cooperative Development Corporation prepared a project for setting up 4.8 lakh tones of cold storage capacity in the co-operative sector by 1985 with the World Bank assistance in the states of Uttar Pradesh, Bihar, West Bengal and Madhya Pradesh.

The first cold storage was established in India as early as in 1892 at Kolkata. But noticeable progress in expansion of the cold storage industry was not made until 1947. Even up to 1955, the total cold storage capacity in the country was only 0.771 lakhs tones. The number of cold storage units and their capacity in India are given in Table 7.7.

Table 7.7.

Growth of Cold Storage Facility in India

Year	Number of Cold storage	Storage Capacity

	Units in Operation	(Lakh Tonnes)
1947	4	0.031
1952	100	0.592
1955	NA	0.771
1960	359	3.055
1965	615	6.820
1970	1218	16.380
1975	1615	20.530
1980	2283	39.650
1985	2522	50.991
1990	2795	68.150
1995	3167	85.800
1996	3253	87.300
2001	4199	153.85

Source:(i) Economic Survey, Various Issues, Ministry of Finance, Government of India, New Delhi.

(ii) Directorate of Marketing and Inspection, Ministry of Agriculture and Rural Development, Government of India, Faridabad.

The rapid strides in the expansion of cold storage capacity were made after 1955. The cold storage capacity increased to 3.055 lakh tones in 1960, 16.38 lakh tones in 1970, 39.65 lakh tones in 1980, 68.15 lakh tones in 1990 and further to 153.85 lakh tones in 2001. The total number of cold storage units in the country in 1996 has been 3253, which increased to 4199 in 2001. There is a wide inter-state variation in the availability of cold storage facilities in India.

Table 7.8

Sector wise Distribution of Cold Storage Facilities in India

Sector	Number of Cold storage Units	Capacity of Cold Storage Units (Lakh Tonnes)
Private	3739 (89.04)	146.13 (94.98)
Cooperative	310 (7.39)	6.80 (4.42)
Public	150 (3.57)	0.91 (0.60)
Total	4199 (100)	153.85 (100)

Note : Figures in parentheses are percentages of the total number and total capacity of storage units.

Source: Report of Expert Committee on Strengthening and Developing of Agricultural Marketing, Ministry of Agriculture and Cooperation, Government of India, June, 2001.

Potato is the main product which is stored in the cold storage. Out of the total capacity utilization, 88 per cent is used for storing potato. Commodity-wise utilization of cold storage units in India can be seen in Table 7.9.

The construction of a cold storage requires heavy investment in terms of building and machines. Similarly, to run the cold store, the cost on electricity input is very high and it amounts to 50 per cent of total running or variable cost. As such there is need to develop low cost and energy saving cold storage units.

Table 7.9

Commodity-wise Percentage Distribution in Cold Storage Units in India

Commodity	Number of cold storage units (%)	Capacity utilization (%)
Potato	63.0	88.3
Fruits & Vegetables	1.1	0.4
Milk & Milk Products	6.9	0.7
Meat	0.8	0.1
Fish	11.3	0.9
Meat and Fish	2.1	0.4
Multi-purpose	9.7	8.0
Others	5.1	1.2
Total	100.0	100.0

Source: Agricultural Marketing, XXIX(1), April-June, 1986.

For promotion of cold storage units in the private sector to meet their increasing needs, a capital investment subsidy scheme for construction/expansion/modernization of cold storages/storages for horticultural produce has been initiated by Government of India. This scheme is implemented by National Horticulture Board. Under this scheme, the promoters of cold storage units are provided 25% back-ended capital investment subsidy, 50% is provided as term loan and 25% is promoter's contribution. The proposals are considered and sanctioned by National Cooperative Development

Corporation (NCDC) under cooperative sector. This scheme is implemented in those States/Union Territories, which do not control rentals for cold storages under any statutory or administrative order.

The available capacity of cold storage is much less than the country's requirements. It is barely sufficient for 15 per cent of potato production and for less than one per cent of fruits, vegetables and fish production. The cold storage requirement has further increased in view of the need to promote exports of processed foods.

There is a considerable scope for expansion of the cold storage industry in India. However, due to large capital requirements, lack of proper technical guidance, inadequate and fluctuating power supply and lack of appreciation for stored products, the entrepreneurs are not attracted to establish cold storage units. The lack of cold storage facilities is leading to heavy losses and violent fluctuations in prices of fruits and vegetables. There is a need to encourage cold storage industry in several regions of the producing areas as well as in large urban centres.

In India, the production patterns, dietary habits and economic considerations warrant long period of storage in large quantities of onion and potato. The conditions required for the storage of potato and onions are distinctly different. While the potato requires low temperature and high relative humidity, onions require low temperature and low relative humidity. Most of the cold storages in the country meet the storage requirements of these two vegetables. For other vegetables, temporary storage structures for short period usually not exceed a week are needed along the route of their movement from producing areas to consuming centres.

As per the estimates of the Expert Committee on Strengthening and Developing of Agricultural Marketing (Government of India, June 2001), there is a need for construction of 15000 cold storage units with 45 lakhs tones capacity in the next ten years for storage of increased output of horticultural products. There is also need for technological upgradation for cost effective refrigeration machinery and improvement in the methods of scientific preservation of perishable commodities.

The country would also need reefer containers/vans for transport of perishable commodities for domestic and export marketing. Their availability was nil in fifties but increased in recent years to 400. During the next 10 years, it is estimated that atleast 3000 reefer containers/vans each of 8 tonnes capacity would be needed to handle the available surplus of perishable agricultural products (Government of India, June 2001).

Considering the fact that an average farmer may not need and have access to mechanical refrigerated cold stores; ventilated storages like direct evaporation cooled structures; energy cool chambers; cool homes and forced evaporation cool stores have been developed. These structures provide relatively lower temperature and high humidity as compared to ambient conditions because of natural/forced evaporative cooling. These can be constructed with locally available materials. The zero energy cool home, AADF CIP design cool home and two-tier structures can be afforded by the farmers on their farms. However, other improved structures can be constructed by growers co-operatives or owners of large size farms.

The Associated Chamber of Commerce and Industry (Assocham), highest body of the Chambers of Commerce of India (CCI), providing a forum for dialogue between business and government said in its report “Food Processing and Agri Business” that the country is short by 10 million tonnes of cold storage capacity due to which about 30-40% of agricultural produce goes waste every year. The report is jointly prepared by Assocham and international advisory company – KPMG.

According to Assocham’s latest study report, against a requirement of over 31 million tonnes of cold storage, India has a capacity of nearly 21.7 million tonnes, leading to a loss of about 40% of the agri-produce post harvest. About the new study on cold storages S Jindal, president – Assocham, said, “Cold storage facilities now available are mostly for single commodity like potato, orange, apple, grapes, pomegranate and flowers, resulting in poor capacity utilisation. Long and fragmented supply chain in India along with inefficiencies lead to huge losses due to wastage or shrinkage of perishable commodities.” The industry body has also asked the government to build new cold chain infrastructure to increase its storage capacity.

At present, the Indian cold chain market is worth $2.6 billion. This market is expected to grow to $12.4 billion by 2015. Uttar Pradesh and West Bengal have 65% of the total installed capacity of cold storage in the country. Cold chains are used primarily for fruits and vegetables, meat and marine products, floriculture, dairy products, ice creams and confectionery. Further, the report said that entire supply chain in the country is dominated by unorganised players with several intermediaries adding to wastage from farm to consumer via retailer, processor or exporter. In a long supply chain, one level is unaware of requirements of next level, leading to disconnection between farmer and processor. Secondly, absence of any structured market hampers discovery of correct price and availability of consistent quality of produce.

India is losing food items worth a whopping Rs 50,000 crore (Rs 500 billion) every year due to poor post-harvest handling of farm produce, a development that analysts say may jeopardise the Centre's plan to formulate a food security law, especially in view of a "below-normal" monsoon. "The level of wastage of agricultural food items is estimated to be about Rs 50,000 crore (a year), occurring at various stages of handling after harvesting," food processing minister Subodh Kant Sahai said in a written reply in the Rajya Sabha.

Identifying the need for food safety and quality, the Ministry of Food Processing Industry, Government of India, has earmarked Rs 250 crore towards the sector under the 11th Five-Year Plan. Deliberating in the oneday seminar on 'Sensitizing Programme on Food Safety Systems,' organised by the Confederation of Indian Industries (CII), K Rajeshwara Rao, Joint Secretary, Ministry of Food Processing Industries said, "it is vital to sensitize masses about important aspects of protecting themselves against foodborne diseases.'' Sharing details about a scheme implemented by the Central Government in assoication with CII, NGOs and municipal bodies to improve food safety in the streets, Rao said, "this scheme lays down standards, quality upgradation and capacity building of street food vendors in about 50 cities across the country through microfinance linkages.''

"Safe farm produce could be unfit for human consumption during transportation, storage, packaging, food preparation in kitchens, if handled unhygienically,'' said Utpal Sen Gupta, chairman, CII AP chapter and vice chairman, Agrotech Foods Limited.

Model Quiz

1. Food Corporation of India was established in the year

   a. 1955 b. 1965 c. 1972 d. 1975 Ans: b

2. Buffer stock operations does not ensure

   a. Price fall b. Price stabilisation c. Food securityd. None of these Ans: d

3. Building buffer stock is possible by

   a. Domestic procurement b.import c. Both a and b d. None of these Ans: c

TRUE or FALSE

1. Warehouse can be used to secure upto 90 per cent of the value of commodity stored. (False)
2. Warehouses help in stabilizing the commodity price by staggering its supply throughout the year (True)

3. Warehouses do not provide market intelligence to persons who hold their produce there. (False)
4. A farmer cannot store the commodity in a public warehouse. (False)
5. Bonded warehouses are meant for use by exporters and importers only. (True)
6. State warehousing corporation cannot get loan from the National Cooperative Development and Warehousing Board (False)
7. Only notified commodities could be stored in the central warehousing corporation godowns. (True)
8. Central government is providing up to 50 per cent of the capital cost for constructing rural godowns as back ended subsidy (False)

CHAPTER 8

AGRICULTURAL PRICES AND RISK MANAGEMENT

Administered Prices

Commission for Agricultural Costs and Prices (CACP)

Another method of intervention in the market mechanism has been the announcement of different administered prices *viz*., minimum support prices, statutory minimum prices, procurement prices and issue prices. These prices are announced for different agricultural crops by the Government of India on the recommendations of Commission for Agricultural Costs and Prices (CACP). This Commission was originally set up in January, 1965 in the name of the Agricultural Prices Commission (APC).

(i) The Agricultural Prices Commission was set up on the recommendations of the Foodgrains Prices Committee headed by Shri L.K.Jha with the aim of advising the Government on price policy of agricultural commodities with due regard to the interests of both producers and consumers. The price policy of the country aims at evolving a balanced and integrated price structure taking into account the overall needs of the economy and with due regard to the interests of both the groups of the economy

Price Policy

The government has formulated a price policy for agricultural produce that aims at securing remunerative prices to farmers to encourage them to invest more in agricultural production. Keeping this in mind, the government announces minimum support prices for major agricultural products every year. These prices are fixed after taking into account the recommendations of the Commission for Agricultural Costs and Prices (CACP). The Commission of Agricultural Costs and Prices while recommending prices takes into account important factors, such as: Cost of production

Changes in input prices
Input/Output Price Parity
Trends in market prices
Inter-crop Price Parity
Demand and supply situation
Effect on Industrial Cost Structure
Effect on general price level
Effect on cost of living

International market price situation

Parity between prices paid and prices received by farmers (Terms of Trade)

The terms of reference of the Commission were made broad based in March, 1980 with the change in its name to Commission for Agricultural Costs and Prices. Since 1966, the Commission has set up a fairly logical scheme for arriving at the administered prices of farm products. The Commission has been recommending two sets of administered prices *viz*., minimum support prices and procurement prices.

The Commission for Agricultural Costs and Prices is a statutory body. The Commission submits separate reports recommending these prices for the kharif and rabi season crops. The Central Government after considering the report of the Commission and views of the State Government and keeping in view the demand and supply situation in the country, takes decision on the level of administered prices.

The Commission for Agricultural Costs and Prices (CACP), which was instrumental in evolving a balanced and integrated price structure in the country, has been manned by several eminent and experienced agricultural economists.

The main objectives of the Government's price policy for agricultural produce, aims at ensuring remunerative prices to the growers for their produce with a view to encourage higher investment and production. Towards the end, minimum support prices for major agricultural products are announced each year which are fixed after taking into account, the recommendations of the Commission for Agricultural Costs and Prices (CACP). The CACP while recommending prices takes into account all-important factors, viz.

Cost of Production, Changes in Input Prices, Input/Output Price Parity, Trends in Market Prices, Inter-crop Price Parity, Demand and Supply Situation, Effect on Industrial Cost Structure, Effect on General Price Level, Effect on Cost of Living, International Market Price Situation and Parity between Prices Paid and Prices Received by farmers (Terms of Trade).

Of all the factors, cost of production is the most tangible factor and it takes into account all operational and fixed demands. Government organises Price Support Scheme(PSS) of the commodities, through various public and cooperative agencies such as FCI, CCI, JCI, NAFED, Tobacco Board, etc., for which the MSPs are fixed. For commodities not covered under PSS, Government also arranges for market intervention on specific request from the States for specific quantity at a mutually agreed price. The losses, if any, are borne by the Centre and State on 50:50 basis. The price policy paid rich dividends.

Procurement / Minimum Support / Statutory Minimum Prices Fixed By The Government For Agricultural Commodities in Absolute term (As On 12.2.2001)

(Rs. per quintal)

CROP	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Paddy	360	380	415	440	490	510
Jowar	300	310	360	390	415	445
Bajra	300	310	360	390	415	445
Maize	310	320	360	390	415	445
Ragi	300	310	360	390	415	445
Wheat	380	475[X]	510[Y]	550	580	
Barley	295	305	350	385	430	
Tur(Arhar)	800	840	900	960	1105	1200
Moong	800	840	900	960	1105	1200
Urad	800	840	900	960	1105	1200
Gram	700	740	815	895	1015	
Groundnut -in- shell	900	920	980	1040	1155	1220
Soyabean Black	600	620	670	705	755	775
Soyabean Yellow	680	700	750	795	845	865
Sunflower seed	950	960	1000	1060	1155	1170
Rape & Mustard	860	890	940	1000	1100	
Toria	825	855	905	965	1065	
Safflower	800	830	910	990	1100	
Cotton	1150	1180	1330	1440[XX]	1575[xx]	1625[xx]
	1350	1380	1530	1650	1775	1825
Jute	490 T	510 T	570	650	750	785
Sugarcane #	42.50	45.90	48.45	52.70	56.10	
Tobacco(VFC) Black Soil	19.00	19.00	20.50	22.50	25.00	26.00
Light Soil (Rs.per kg.)	21.50	22.00	23.50	25.50	27.00	28.00

Copra Milling (For Calender Year)	2500	2500	2700	2900	3100	3250
Ball	2725	2725	2925	3125	3325	3500
Sesamum	850	870	950	1060	1205	1300
Niger Seed	700	720	800	850	915	1025

Note:

X - Including a Central Bonus of Rs. 60.00 per quintal payable on wheat offered for sale to the procurement agencies for central pool upto 30.6.97.

XX - For J-34 variety also.

Y - Including a central Bonus of Rs. 55 per quintal payable on wheat offered for sale to the procurement agencies for central pool up to 30.6.98.

RISK IN MARKETING AND ITS MANAGEMENT

Meaning and Importance of Risk

Hardy has defined risk as uncertainty about cost, loss or damage. Risk is inherent in all marketing transactions. There is the risk of the destruction of the produce by fire, rodents or other elements, quality deterioration, price fall, change in tastes, habits or fashion, and the risk of placing the commodity in the wrong hands or area.

There is a time lag between the production and consumption of farm products. The longer the time lag, the greater will be the risk. The risk associated with marketing cannot be dispensed with, for this risk contributes to profit. Someone has to bear the risk in marketing process. But most of the risk is taken by market middlemen, as they have the capacity to bear it.

Whenever risks are greater and varied, the margin taken by the risk-bearers is higher, and vice versa. One who holds the commodity in the process is the bearer of the risk, because of which he may be better off or worse off.

Types of Risk in Marketing

The risks associated with the marketing process are of three basic types:

(i) *Physical Risk*: This includes a loss in the quantity and quality of the product during the marketing process. It may be due to fire, flood, earthquake, rodents, insects, pests, fungus, excessive moisture or temperature, careless handling and unscientific storage, improper package, looting or arson. These together account for a large part of the loss of the product at the individual as well as at the macro level. Such losses are a loss to society, too, and must be averted to the extent possible.

(ii) *Price Risk*: The prices of agricultural products fluctuate not only from year to year, but during the year from month to month, day to day and even on the same day. The changes in prices may be upward or downward. Price variation cannot be ruled out, for the factors affecting the demand for, and the supply of, agricultural products are continually changing. A price fall may cause a loss to the trader or farmer who stocks the produce. Sometimes, the risks are so great that they may result in a total failure of the business, and the person who owns it may become bankrupt.

(iii) *Institutional Risks*: These risks include the risks arising out of a change in the government's policy, in tariffs and tax laws, in the movement restrictions, statutory price controls and the imposition of levies.

Minimization of Risk

The agencies engaged in marketing activities worry about the risk associated at every stage; and they continually try to minimize the effects of these risks. A risk cannot be eliminated because it also carries profit. The agencies which do not take risks hardly earn profit. The risk management by the adoption of some of the measures listed below may minimize the risks:

1. Reduction in Physical Loss

The physical loss of a product (quantity and quality both) may be reduced by the adoption of the following measures:

(a) Use of fire-proof materials in the storage structures to prevent accidents due to fire;

(b) Use of improved storage structures and giving necessary pre-storage treatment to the product to prevent losses in quality and quantity arising out of excessive moisture, temperature, attacks by insects and pests, fungus and rodents;

(c) Use of better and quicker transportation methods and proper handling during transit; and

(d) Use of proper packaging material.

2. Transfer of Risks to Insurance Companies

The burden of physical risk may be minimized by shifting it to insurance companies. There are specialized professional agencies to bear such risks. They collect some premium and provide full compensation to the party in case of loss due to the reasons for which the products are insured. In this way, the company insures a number of farmers against losses.

3. Minimization of Price Risk

The risk associated with the variations in the prices may be minimized by the adoption of the following measures:

(a) Fixation of minimum and maximum prices of commodities by the government and allowing movements in prices only within the specified range:

(b) Marketing arrangements for the dissemination of accurate and scientific price information to all sections of society over space and time. This should include information on market demand, acreage under a particular crop, estimates of market supply and of the import and export of commodities;

(c) An effective system of advertising may reduce price uncertainty and create a favourable atmosphere for commodity;

(d) Operation of speculation and hedging. The price risk associated with the commodities for which the facility of forward trading is available may be transferred to professional speculators through the operation of hedging. A detailed exposition of speculation and hedging follows.

Risk Management Strategies in Agricultural Marketing Speculation and Hedging

Speculation and hedging are important ways of minimizing price risk in business. In the former, risk is taken by the person specializing in the business without much consideration of business trends, while in the second, a calculated risk is taken.

Speculation

The fundamental idea underlying speculation is the purchase or sale of a commodity at the present price with the object of sale or purchase at some future date at a favourable price. The speculator is normally concerned with profit-making from price movements. He purchases when prices are low. He is, therefore, not a normal or regular trader. The difference in the prices prevailing at two times constitutes his profit. Speculator may lose in this process. The essentials of a speculator are:

(i) He enters the trade at current prices;

(ii) The transactions of speculators are completed on some future date;

(iii) The speculators enter the trade with the sole object of making profit from price movements. Sometimes, they indulge in hoarding as well;

(iv) Except in a few cases, the physical delivery of produce is neither taken nor given. Only the difference in the prices is paid or taken; and

(v) Speculators are not regular buyers and sellers in the market. They do not conduct any regular business apart from speculative business.

Based on the legalities involved, speculation is of two types:

(i) Speculation Proper

Speculation proper refers to speculation on the part of a person who makes it his profession. Such professional speculators devote their whole time and energy to the collection of information about the future course of price movements. The decisions of the speculator are not hunch decisions. These are intelligent forecasts based on predicted trends. This type of speculation is beneficial for the economy as a whole and is usually accepted by the society.

(ii) Illegitimate Speculation

This is a gamble in business. The speculators adopt such manipulative practices as create conditions of artificial scarcity in the market and lead to a rise in prices. The main aim of the speculator is to earn a big profit. This type of speculation is not based on any rationale, though it influences the prices of products. Such speculation is prohibited by the government in the best interest in the economy.

Economic Benefits of Speculation

(i) Speculation Dampens Price Fluctuations: Speculators buy at current prices in anticipation of a rise in prices in the future which results in pushing up the current prices. This encourages production and discourages consumption. Other speculators, who sell in the present period in the expectation of a fall in future prices, bring about a fall in the current prices, which encourages consumption and discourages production. The sum total of the effects of these speculative activities results in dampening price fluctuations.

(ii) The price differentials in different markets are bridged to some extent.

(iii) Speculation helps in the adjustment of the supply of, and demand for, commodities at normal prices.

Related Terms

(i) *Spot/Cash Transactions*: A transaction in which payment is made on the spot or within a prescribed short period, and delivery is taken on the same day or within a specific period are known as spot or cash transactions. Three things are essential in cash transactions:

(a) The purchaser has to take the delivery of the produce immediately after sale;

(b) The seller has to deliver the goods immediately; and

(c) Payment for the produce has to be made immediately.

(ii) *Futures Transactions*: This is a transaction in which prices of commodities are settled in cash but the commodities are delivered on some future date as agreed. Generally, in futures transactions, the loss or profit is paid or received on the expiry of the time instead of the physical handing over of the commodity.

In futures transactions, two groups of persons are involved, i.e., the bulls and the bears. Persons who expect that prices will go up in future are bulls; but those who expect that prices will go down in future are bears. The futures transactions take place as a result of action on the part of these two groups of persons.

(iii) *Contract*: A contract is a promise to deliver or accept delivery of specific grade of a commodity at a specified time in future.

Hedging

Meaning

Hedging is a trading technique of transferring the price risk. It protects traders from extreme crash in prices. Hedging has been defined as follows:

"Hedging is executing opposite sales or purchases in the futures market to offset the purchases or sales of physical products made in the cash market".

- *Shepherd*

"Hedging is the practice of buying or selling futures to offset an equal and opposite position in the cash market and thus avoid the risk of uncertain changes in prices".

- *Hoffman*:

Hedging refers to the purchase or sale of a commodity in a futures market accompanied by a sale or a purchase in the cash market. In this approach, each sale is entered into with an equivalent, purchase of the commodity. It is assumed that prices in the two markets move exactly parallel, and that the losses arising in one market are offset by profit in another market. Hedging is based on two assumptions:

(a) The future and cash commodity prices move up and down together, *i.e.*, the basis of price changes remains unchanged.

(b) The mechanics of hedging includes the making of simultaneous transactions, but of opposite nature, in the futures and cash markets.

Benefit of Hedging

The benefits of hedging are:

(i) It protects the hedger from sustaining loss and enables him to earn his normal trade profit;

(ii) Hedging enables him to keep the trade margins at a lower level because there is no risk; and

(iii) Hedging facilities the financing of inventories of stored commodities to the maximum possible extent.

Hedging is employed by many traders to protect themselves against losses due to market price fluctuations by executing cash purchases and sales practically simultaneously with future transactions in the opposite side. It is the performance of mainly the two contracts of an opposite, though corresponding nature at the same time, one in the spot market where the commodity physically is handled, and the other in the futures market; where the commodity exchange takes place. In short, there are two opposite responsibilities balancing each other.

One other example should make the operation and logic of hedging clear. Suppose, a cotton trader contracts a deal with some overseas firm in February 2010 to supply 1000 quintals of cotton lint at a price of Rs.4200 per quintal to be shipped in May 2010. In order to protect himself from a possible loss, he buys cotton futures at a ruling futures price of say Rs.4210 per quintal. Now in the month of May 2010, he discovers that the ruling spot price of cotton is Rs.4250 per quintal. As he had contracted to ship 1000 quintals at a price of Rs.4200, he looses Rs.50 per quintal on this deal. But the future prices also have moved up (say) to Rs.4260 per quintal, in sympathy with the spot or ready or cash prices. Hence, he sells cotton future at Rs.4260 per quintal (which he purchased at Rs.4210 per quintal) and gains Rs.50 per quintal. This way, his loss on the spot or ready or cash market is compensated by the gain in futures market.

Difference between Speculation and Hedging

The basic differences between speculation and hedging are:

	Speculation	Hedging
(i)	Purchases and sales in the cash as well as in future markets are made with the objective of making profit.	The purchases and sales in the cash and futures markets are made to protect oneself against excessive price fluctuations.
(ii)	The activities of buying and selling are not necessarily opposed to each other.	The activities of buyers and sellers are always opposed to each other.
(iii)	It is not necessary that the two types of	It is obligatory to buy and sell the goods

	transactions should be of equal quantity.	in equal quantities in the two markets.
(iv)	Under speculation, the speculator purchases goods and sells them when prices rise as per his expectations.	The commodities are not stored by traders. Only the difference in the price is given or taken on the due date.

Futures Trading

Meaning

Futures trading is a device for protection against the price fluctuations which normally arise in the course of the marketing of commodities. Stockists, processors or manufacturers utilize the futures contracts to transfer the price risk faced by them.

Futures trading includes both hedging and speculation. But since hedging is its *raison deter*, it is also known as hedge-trading. Futures markets are, therefore, known as "hedge" markets.

Widely divergent views exist on the effects of futures trading. A few are convinced that commodity futures trading tend to stabilize prices and reduce price variations. Others not only disagree with this view but vigorously allege that, more often than not, futures trading aggravate the price trends and increase both the magnitude and frequency of price variations. A third group denies that futures trading have any influence, either favourable or adverse, on commodity prices.

Futures trading in various groups of commodities was established about the end of 19th century. In cotton, futures trading was started in Bombay. The Europeans took a hand in founding the Bombay Cotton Traders Association in 1875 for the regulation of cotton trade, which was the first step in the evolution of an organized futures market. The futures markets were established for oilseeds at Bombay in 1900, for wheat at Hapur in 1913, for raw jute and jute goods at Kolkata in 1912, and for bullion at Mumbai in 1920. Subsequently, similar markets for these commodities were established at other places also. To provide against unhealthy speculation, forward trading in agricultural commodities was regulated under the Forward Contracts (Regulation) Act, 1952. The Act was enacted with a view to regulating forward contracts prohibiting options in goods and dealing with certain other related matters. This job has been assigned to the Forward Market Commission, which was established in September, 1953. The government has regulated or banned forward trading in several commodities in order to

check unhealthy speculation. The Act has been amended from time to time to plug the loopholes.

The Forward Markets Review Committee, set up by the Government of India under the chairmanship of Prof. M.L.Dantwala, recognized the need for futures trading even in conditions of short supply, and upheld the view that speculations in futures markets should be recognized as a necessary factor for their proper working.

Commodities for Futures Trading

The commodities permissible under futures trading must satisfy the following conditions:

(i) Commodities should be in plentiful supply. If a commodity is in short supply, a few traders may corner the whole supply and charge any price they like to the buyers.

(ii) The commodity must have a minimum degree of perishability, i.e., it must be storable for futures delivery.

(iii) The commodity should be homogeneous and capable of being graded so that its future deliveries may be made without problems regarding quality.

(iv) The commodity should have a large demand from a number of independent consumers so that a single buyer may not be in a position to impose his terms for his purchase.

(v) The supply of the commodity should not be controlled by a few large firms. It should be available with a large number of suppliers.

(vi) The price of the commodity should be liable to fluctuations over a wide range, and

(vii) There should be free flow of the commodity to and from the market without any outside interference/control.

Services Rendered by a Forward Market

The forward market renders the following services to the economic system:

(i) It enables the merchants, stockists and processors to protect themselves against the risk of adverse fluctuations in the prices of the commodity. It reduces price fluctuations so that the margin of profit may be small;

(ii) The highly competitive character of the market smoothens out price fluctuations and ensures an even flow of goods from the purchaser to the consumer, avoiding gluts in the peak season and shortages in the slack seasons;

(iii) It brings about an integration of the price structure of commodities at different points of time in the same way as transportation and communications bring about an integration of prices in different parts of the market;

(iv) It facilitates large purchases and sales of the commodity at short notice in advance of delivery and in the absence of production; and

(v) It brings about a co-ordination of the current and future expectations by a continual revaluation of stocks of goods in the light of the changing supply and demand conditions.

Dangers of Forward Market

The dangers arising out of the forward market are:

(i) The forward market opens out the way for a large number of persons with insufficient means, inadequate experience and information to enter into commitments which may be beyond their means. In such conditions, market gets demoralized.

(ii) It enables unscrupulous speculators, with little interest in the actual supply of, and demand for, a particular commodity, to corner the supplies and organize bear raids and bull raids on the market in the hope of making easy money for themselves. This results in violent fluctuations in prices.

Forward Market Commission

The Forward Market Commission (FMC) was established Under Section 3 of the Forward Contracts (Regulation) Act, 1952 and has executive as well as advisory functions. The functions assigned to the commission are:

(i) To advise the government in respect of recognition or withdrawal of recognition of associations conducting forward trading.

(ii) To keep forward markets under observation.

(iii) To draw the attention of the government to the various developments that are taking place in the different forward markets with suitable recommendations.

(iv) To collect and publish information as regards trading conditions in respect of markets falling under its jurisdiction.

(v) To submit periodical reports to government on the operation of the Act and on the working of the forward markets, and

(vi) To inspect accounts of recognized associations generally with a view to improving the organization and working of forward markets.

Contract Farming/Contract Marketing

(Farmer – Processor Linkages)

Meaning

Contract farming or marketing essentially is an arrangement between the farmer-producers and the agri-business firms to produce certain pre-agreed quantity and quality of the produce at a particular price and time. It can only be a pure procurement transaction or can extend to the supply of inputs or even beyond.

Contract farming is emerging as an important mode of procurement of raw materials by agri-business firms in India due to the development in the field of agricultural marketing, changes in food habits and in agricultural technology in the new economic environment. This is an important initiative for reducing transaction costs by establishing farmer-processor linkages in addition to the already existing methods of linking the farmers to the consumers.

The distinction between 'sales' and 'contract to sell' needs to be understood clearly. In the case of sale, the title or ownership of goods is transferred at once whereas in the 'contract to sell', the goods are transferred at a later date. A contract to sell is not in the true sense of the word a sale, rather it is merely an arrangement to sell. A contract is an agreement but an agreement is not necessarily a contract.

In contract farming, companies or organizations engaged in processing and marketing of agricultural products are entering into contracts with the farmers. They provide inputs to the farmers and buy back the product at a rate specified in advance. Following type of inputs and services are normally provided by the company to the farmers:

- Seeds of the variety they need for processing/marketing
- Guide lines to grow the crops
- Pesticides which do not result in residual toxicity
- Extension services
- Fertilizers/harmones required for the crop
- Other material if not locally available.

The contract may be entered into by parties anytime from the start of the sowing or planting to the harvesting, processing, packaging and marketing stage of the crop.

Normally, the contract is entered before the start of the sowing or planting because the buyer can then stipulate the conditions of cultivation, use of the seed variety needed by them, use of pesticides and insecticides, and requirement of onfarm grading, sorting, packaging and processing. The buyer of the product generally keeps the right to monitor the crop at every stage of its growth.

Following documents are obtained/given to selected farmers by the companies:

- Application/Registration form
- Contract farming agreement
- Issue of pass book
- Issue of ID Card

Advantages of Contract Farming

Contract farming/marketing is beneficial both for the producer-farmers as well as to the processing company in several ways:

To the farmer, contract farming

(i) Reduces the risk of price/production
(ii) Ensures the price as market is assured
(iii) Increases the quality consciousness
(iv) Ensures higher production because of better quality seeds and pesticides
(v) Reduces marketing costs
(vi) Provides financial support in cash or kind
(vii) Ensures efficient/timely technical guidance almost free of cost.

To the processing company, contract farming –

(i) Ensures supply of quality agricultural produce at right time and at lesser cost to the company.
(ii) Canalizes direct private investment in agricultural activities.
(iii) Ensures that the toxicity level is reduced as per requirement for export.

Government is increasingly looking towards the corporate sector to augment the rural incomes and employment through agro-processing. In this context, policy makers see the contract farming/marketing as an important avenue to ensure greater private sector participation in agriculture.

Flip Side of Contract Farming

The important weaknesses of contract farming are:

(i) Contract farming is involved mostly in cash crops which may lead to shift in area from food crops which, beyond a limit may endanger food security, biodiversity and agricultural crops cycle of the country.

(ii) Contract farming may create the danger of imposition of undesirable seeds.

(iii) The temptation of getting commercial profits from cultivation of a variety of the crop may cause permanent damage to the land.

(iv) Market making outside the country may cause market breaking inside the country.

However, contract farming is a welcome development. But the contract should be made under high scrutiny possibly because of exploitation of the farmers. The terms of the contract should be spelt out in advance and a consent letter is obtained both from the farmer and the company. The government should establish a monitoring mechanism and a dispute settlement body to ensure that both parties adhere to the terms of contract.

Experience in Contract Farming

The following companies are presently under the tie-ups in India for contract farming for the products specified:

Poultry	-	Contract farming of broilers between the Coimbatore hatchery with farmers
Pulpwood	-	ITC/WIMCO/JK Papers and farmers in Andhra Pradesh, Orissa, Punjab and Uttar Pradesh.
Organic dyes	-	Marigold farmers and extraction units in Coimbatore.
Dairy Processing	-	Chitale of Pune and small farmers in Maharashtra and Gujarat.
Tomato Pulp	-	Pepsi Company and farmers of Punjab and Rajasthan for tomato growing
Exotic vegetables	-	Trikaya Foods/VST and small farmers of Maharashtra and Andhra Pradesh
Mushrooms	-	NAFED and Sonepat (Haryana) farmers
Gherkins	-	Exporters with farmers of Bangalore
Edible oils	-	ITO Agro-Tech and sunflower cultivators in Andhra Pradesh and Karnataka

Other areas where farmer processor linkage (contract farming) are being practiced in India are:

- Baby corn cultivation
- Tomatoes for manufacture of sauce and ketchup
- Chillies for manufacture of chilly paste
- Garlic and onion for manufacture of paste, powder and dehydrated products
- Special varieties of Banana
- Potato for making chips and wafers
- Barley in making of beers
- Onions and Mandarin Oranges
- Durum Wheat

Presently contract farming is confined to few selected crops in selected pockets. However, there is enormous scope for contract farming/marketing because with the increasing income, consumers are becoming more health and quality consciousness and look for branded products.

Incentives for Promoting Contract Farming

Contract farming is means of allocating/distribution of risk between processor and the farmers. It will succeed if both the parties share the risks and rewards.

The Ministry of Food Processing Industries of Government of India has launched a scheme entitled 'Grant Under Backward Linkages' to promote contract farming. Under this scheme, a grant of 10 per cent of value of raw material purchased from the contract farmers (subject to a maximum of Rs.10 lakhs per annum) is provided to food processing units upto three years. The Ministry has also prescribed a model agreement form. The criteria for the grant are:

(i) The processing unit should provide seed, insecticides, fertilizers and extension services to contract farmers at reasonable charges;

(ii) The number of contract farmers should be atleast 25;

(iii) There should be an agreement prior to the period of contract farming for a maximum period of one year;

(iv) The processing unit should give advance intimation about its contract with farmers to the Ministry as well as State Nodal Authority (One Month before the contract comes into operation).

(v) The claim for reimbursement should be recommended by the State Nodal Authority.

Model Quiz

1. Which of the following is correct about CACP?
   a. CACP recommends minimum support price in kharif only.
   b. CACP recommends minimum support price in rabi only.
   c. CACP recommends minimum support price in kharif and rabi.
   d. CACP does not recommend minimum support price for food grains.

   Ans: c

TRUE or FALSE

1. Procurement prices are announced by Govt. Of India during sowing period every year. (False)
2. Procurement prices of food grains are usually lower than their market price. (True)
3. Most of the risk in agricultural marketing is borne by middlemen. (True)
4. The longer the time lag between production and consumption, the greater will be the marketing risk. (True)
5. Risk in marketing forms the part of profit earned. (True)
6. Risk in marketing always rests with the owner of the commodity. (False)
7. Hedging is the trading technique of transferring physical risk. (False)
8. Persons who expect the prices will go up in future are known as bears. (False)
9. Hedging involves purchasing and selling in both cash and futures market. (True)

Notes and References

1. Moore, J.R., S.S.Johl and A.M.Khusro, *Indian Foodgrain Marketing*, Prentice-Hall of India Private Limited, New Delhi, 1973, p.35.
2. Kohls, R.L. and J.N.Uhl., *Marketing of Agricultural Products*, Macmillan Publishing Co., Inc., New York, 1980, p.595.
3. Randhawa, B.S., A.S.Kahlon and J.S.Sahota, "Costs & Margins in Marketing of Live poultry in Gurdaspur District of Punjab", *Agricultural Marketing*, Vol.X, No.1, April, 1967, p.11.
4. Acharya, S.S., Agricultural Production Marketing and Price Policy in India, Mittal Publications, New Delhi, 1988.
5. Pawar, P.P., K.R.Waykar, B.K.Mali and S.S.Bhosale, Need of Shetkari Bazar for Marketing of Fruits and Vegetables in Maharashtra, *Ind. Journal of Agri. Marketing*, 15(3), Sept.-Dec., 2002, pp.53-54.
6. Atibudhi, H.N. and Binodini Sethi, Krushak Bazar: An Ideal Bazar: A Case Study in Orissa. *Indian J. of Agri. Marketing*, 15(3), Sept.-Dec. 2001, pp.35-40.

Additional links

www.rakmb.com

www.msamb.com

www.maratavahini.kar.nic.in

www.tnagmark.tn.nic.in

www.agri.rajasthan.goc.in

www.market.ap.nic.in

www.maniboardpunjab.com

www.mpmandiboard.com

www.gov.ua.nic.in

www.upmandiparishad.com

www.bsamb.com

www.megamb.nic.in

www.osamboard.org

www.nafed.com

www.assamagribusiness.nic.in

www.hortibizindia.org

www.agriwatch.com

www.kisan.com

www.indiagriline.com

www.iopea.com

www.echoupal.com

www.indg.in

www.nhrdf.com

www.fishinfo.siffs.in

www.spiceboardindia.com

www.seaofindia.com
www.agrifair.in

****** ☺ ******

DISCLAIMER:

The information on this website does not warrant or assume any legal liability or responsibility for the accuracy, completeness or usefulness of the courseware contents.

The contents are provided free for noncommercial purpose such as teaching, training, research, extension and self learning.

****** ☺ ******