

A
PROJECT REPORT

ON

**"BUILDING UP OF AN EFFICIENT MARKETING SYSTEM TO OBVIATE
THE NEED FOR BETTER AGRICULTURAL MARKET OPTION IN
PALANPUR (GUJARAT) : A CASE OF CASTOR SEED"**

**Project submitted to the Institute of Agribusiness Management in
partial fulfillment of the requirements for the award of the Degree of**

**Master of Business Administration
(Agribusiness)
2008-09**

**SUBMITTED BY
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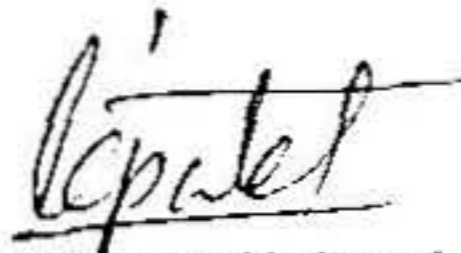


DECLARATION BY STUDENT

I hereby declare that the project entitled "BUILDING UP OF AN EFFICIENT MARKETING SYSTEM TO OBVIATE THE NEED FOR BETTER AGRICULTURAL MARKET OPTION IN PALANPUR (GUJARAT): A CASE OF CASTOR SEED" submitted for the M.B.A. (Agribusiness) Degree is my original work and the dissertation has not formed the basis for the award of any degree, associate ship, fellowship or any other similar titles.

Place: Navsari

Date: 3/7/09



Kirankumar K. Patel

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CERTIFICATE

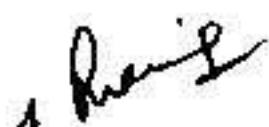
This is to certify that the project entitled "BUILDING UP OF AN EFFICIENT MARKETING SYSTEM TO OBVIATE THE NEED FOR BETTER AGRICULTURAL MARKET OPTION IN PALANPUR (GUJARAT): A CASE OF CASTOR SEED" is the bonafide research work carried out by KIRANKUMAR KANTILAL PATEL student of M.B.A. (Agribusiness) during the year 2008-2009, in partial fulfillment of the requirements for the award of the Degree of Master of Business Administration (Agribusiness) under my guidance and supervision and that the project has not formed the basis for the award previously of any degree, diploma, associate ship, fellowship or any other similar title.

Place: Navsari

Date: 3/7/09


Dr. Ruchira Shukla

Approved


Dean, IABM

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This is certify that

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has successfully completed his

PROJECT WORK

on


**"BUILDING UP OF AN EFFICIENT MARKETING
SYSTEM TO OBVIATE THE NEED FOR BETTER
AGRICULTURAL MARKET OPTION IN PALANPUR
(GUJARAT): A CASE OF CASTOR SEED"**

in

National Spot Exchange Limited

Bombay,

during 8th February to 4th May, 2009.



Anjani Sinha
MD & CEO (NSEL)

Date of issue:-

EXECUTIVE SUMMARY

- | | |
|------------------------------|--|
| I Project Title | Building Up Of An Efficient Marketing System To Obviate The Need For Better Agricultural Market Option In Palanpur, Gujarat: A Case Of Castor Seed |
| II Organization | National Spot Exchange Ltd., Palanpur, Gujarat |
| III Reporting Officer | Mr. Pradip Misra, Asst. Vice President and
Mr. Amit Mukherjee, Asst. Manager, Business Development |
| IV Faculty Guide | Dr. Ruchira Shukla |
| V Students' Name | Kirankumar K. Patel |

Objective: As a part of this project, I was required to study the present APMC model as well as NSEL model and identified better marketing system.

Scope: The purpose of regulation of agricultural markets was to protect from the exploitation of intermediaries and traders and also to ensure better prices and timely payments for his produce. Over a period of time these markets have, however, acquired the status of restrictive and monopolistic markets providing no help in direct and free marketing, organized retailing, smooth raw material supplies to agro-processing, competitive trading, information exchange, and adoption of innovative marketing systems and technologies. A farmer cannot sell his produce directly in bulk except on retail basis to the consumers. Farmers have to bring their produce to the market yard. Exporters, processors, and retail chain operators cannot get the desired quality and quantity of produce for their business due to restrictions on direct marketing. The processor cannot buy the produce at the processing plant or at the warehouse. The produce is required to be transported from the farm to the market yard and then only can it be purchased and taken to the plant. There is thus an enormous increase in the cost of marketing and the farmer ends up getting a low price for his produce. Under the APMC Act, only state governments are permitted to set up markets. Monopolistic practices and modalities of the state-controlled markets have prevented private investment in the sector. The licensing of traders in regulated markets has led to the monopoly of licensed traders who, in turn, are a major entry barrier for a new entrepreneur. The traders, commission agents, and other functionaries organize themselves into associations, which generally do not allow easy entry of new persons

and thereby stifle the very spirit of competitive functioning.

Methodology: A qualitative and quantitative approach of data collection through semi-structured questioners is used for different level of stakeholders. Responses are collected personally through personal depth interview, focus group discussion and observations of members, employees, farmers, traders, aggregators, millers, investors, speculators & labours.

Major findings: There was a difference seen in pricing at APMC and NSEL platform mainly due to long chain of intermediaries, local buyers only.

Limitations: The major limitation of project was to establish electronic spot market in well set physical market as well as in bare market condition where participant expect better price.

Recommendations: In order to establishment of well develop national level electronic spot market, NSEL must require to increase participants i.e. buyers, sellers and investors etc.

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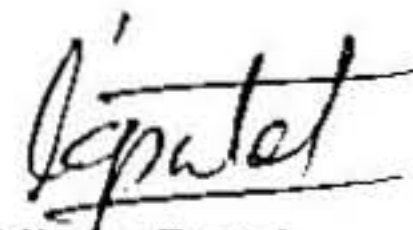
At the very onset I would like to express my warm and heart-felt gratitude to the officials of the **National Spot Exchange Ltd., Palanpur, Gujarat** who made me feel at home during the entire stay and extended every possible help to me.

I am extremely thankful to the **Mr. Pradip Misra, Asst. Vice President, Mr. Amit Mukherjee, Asst. Manager, Business Development** and all other staff members of NSEL for providing me with their invaluable help and support in providing me with the required data and also for giving me important insights about the plant operations.

I express my sincere thanks to **Dr. R. R Shah, Dean, IABM, NAU, Navsari** for providing me with this wonderful opportunity of learning the various nuances of organizational life and observing it so closely.

My sincere thanks to **Dr. Ruchira Shukla**, our faculty guide for guiding me throughout the project.

I am thankful to **Mitesh, Hiren and Girish** for giving continuous support during successful completion of the project.



Kiran Patel

IABM, NAU, Navsari.

*INTRODUCTION TO THE
ORGANIZATION*

1. INTRODUCTION TO THE ORGANIZATION

1.1 MICROSTRUCTURE OF PHYSICAL COMMODITY MARKETS

All agricultural commodities in India trade in wholesale markets or mandis where the price of the commodity is set. If it is a principal commodity and the market determined price is below a threshold (MSP), the trader has to take delivery at the MSP. In return, the trader is compensated by the mandi which is in turn, compensated by the government. Some of the principal crops are rice, wheat, pulses, oilseeds, cotton and sugarcane. Today, there are approximately 25 agricultural commodities for which the government of India still sets a "minimum support price" (MSP).

Agricultural commodity markets in India started as areas specific to limited geographical locations where producers and buyers collected to trade their goods. APMC or Mandis are official markets set up at a specific location to trade a set of agricultural commodities. They are sanctioned and "governed" by a mandi board which can be a committee or a trust. These are, in turn, governed by a state government state mandi board. Most mandis trade at least one primary commodity. The physical infrastructure of the mandi consists of a yard with platforms or open sheds where farmers bring their crops to sell to traders.

Mandis are set up only with the permission of state governments. Each state has a state agriculture marketing boards (SAMB). These, in turn, set up mandi boards at the level of a district. It is the mandi board that evaluates proposals to set up new mandis and permits the creation of a mandi.

Initially, mandis were set up only at the level of a specific district. But their numbers have been rapidly increasing to allow trading at a more micro-level. Today there are several mandis to a district, with around 750 mandis that facilitate the trade of 140 crops and their different varieties, all across India. Most mandis in the same district trade a very similar set of commodities in the same district. This makes for a very fragmented market for any single agricultural commodities across the vast geographical reach of India.

1.2 NATIONAL SPOT EXCHANGE LTD, BOMBAY: A BACKGROUND

National Spot Exchange is a national level institutionalized, electronic, transparent spot Exchange, which is poised to transform the rural economy. National Spot Exchange is a state-of-the-art unique market place providing customized solutions to various problems faced by the farmers, traders, processors, exporters, importers, arbitrageurs, investors and the general mass. The foundation stone for National Spot Exchange was laid on 10th February, 2005 in New Delhi in a function presided over by Shri Sharad Pawar, Honorable Union Minister for Agriculture and Consumer Affairs, Food and Public Distribution.

National Spot Exchange Ltd. has been promoted by the following institutions:

FTIL (Financial Technologies India Limited) is among the very few companies globally that offers exhaustive solutions library for Exchanges, provides technology solutions to financial markets and facilitates expansion of stock broking terminals.

NAFED (National Agricultural Cooperative Marketing Federation of India Limited), the leading Government agency, engages in food procurement, distribution and storage activities.

MISSION

To develop a Common Indian Market, by setting up a national level electronic spot market and providing a state of art trading, delivery and settlement facilities in various commodities, which can be accessed from across the country.

OBJECTIVES

- To provide an effective method of spot price discovery in various commodities, in a transparent manner from across the country.
- To create a market where farmers can sell their produce and realize sale proceeds at the best prevailing price.
- To create a market where the processors, end users, exporters, corporates (both private and government) and other upcountry traders can procure agricultural

produces at the most competitive price, without any counter party and quality risk.

- To create a transparent market where financiers, investors and arbitrageurs can invest money in buying various commodities across the country without going through the hassles of physical market.
- To provide authentic spot price of various commodities that can be used by the futures market as the benchmark price for settlement of their contracts on the date of expiry.
- To help the futures exchanges, Forward Markets Commission (FMC) and the Government in achieving the target of compulsory delivery in all agricultural produces by way of creating a structured and standardized spot market.
- To promote grading and standardization of agricultural produces and create a market, where banks and money lending agencies can provide warehouse receipt financing to farmers and traders.

*THE
PROJECT*

2. THE PROJECT

2.1 INTRODUCTION

Castor (*Ricinus communis* L.) is cultivated around the world because of the commercial importance of its oil. India is the world leader in castor production and dominates the international castor oil trade. The Indian variety of castor has an oil content of 48% and 42% can be extracted, while the cake retains the rest. Castor grows under tropical conditions. It loves heat and humidity and does best in regions where both are ample.

Castor oil obtained from castor seed is inedible oil but is of great industrial importance. It is used as a raw material in the manufacture of a number of chemicals used in the manufacture of surfactants, specialty soaps, surface coatings, cosmetics and personal care products, pharmaceuticals, perfumes, plasticizers, greases and lubricants, and specialty rubber etc. Castor meal has uses in agriculture as organic manure.

The world castor seed production fluctuates between 12 to 18 lakh tons. India is the world's leading castor seed producer with 64.34 % share, followed by China and Brazil with 22.7 % and 6.56 % share respectively in 2008.

India's castor seed area, output and yield noted steady improvement from 1950's to 2008. However, the production of castor seed in the country 10.11 lakh tons in 2007-08.

Gujarat accounts for 86% of India's castor seed production followed by Andhra Pradesh and Rajasthan. Castor is mainly grown in Mehsana, Banaskantha and Saurashtra/Kutch regions of Gujarat and Nalgonda and Mahboobnagar districts of Andhra Pradesh.

The annual domestic consumption of castor oil in India is only about 80,000-1,00,000 tons. Of this, the soap industry consumes about 25,000 tons, the paint and allied industries 35,000 tons and the lubricant and derivatives industry 20,000 tons.

India annually exports around 2.0 - 2.4 lakh tons of commercial castor oil, 50,000 - 60,000 tons of castor seed extractions and 15,000 - 20,000 tons of castor seed. While 90 % of castor seed and oil in India is produced in Gujarat and Andhra Pradesh, the domestic consumption is dispersed all across the country. Castor seed and oil are also exported to various countries, especially European Union, US and Japan. The domestic ready market is quite well developed in Gujarat and Andhra Pradesh. The major mandi

prices near the producing centers, upcountry prices and export prices from ports are available on a daily basis in public domain. The price dissemination is also up to the mark due to the export orientation of the commodity.

In the past few decades India has seen a sustainable growth in food production and incomes along with growing diversification both in consumption and production. Food security and sustainability our major goals to keep agriculture sector out of a danger zone seems to be have been fulfilled. But this feel good factor seems to be a myth as we see new and bigger challenges emerging in this most vulnerable sector. Share of agriculture in country's GDP has declined from 48.7% in 1950 to 24.4 % in 1996-97 and further 17.2% in 2008. Agriculture sector is the backbone of country's development and lifeline for 65 per cent of the population based in rural areas and approximately more than 58 percent of the population still dependent on agriculture for their livelihood. Besides this to achieve an ambitious rate of growth for the country of as high as 9-10% in the eleventh five year plan, the country needs a strong pull-up support to agriculture sector which should grow at least at the rate of 4 per cent per annum, all the more since in 2005-06 the growth in agriculture was merely 2.2% which is expected to go even negative next year. Commodity markets are of great importance and hold a great potential in case of economies like India, where more than 65% of the population are dependent on agriculture.

There is a huge domestic market for commodities in India since India consumes a major portion of its agricultural produce locally. India is the world's leading producer of more than 15 agricultural commodities and is also the world's largest consumer of edible oils and gold. It has major markets in regions of urban conglomeration (cities and towns) and nearly 7,500+ Agricultural Produce Marketing Cooperative (APMC) mandis. To add to this, there is a network of over 27,000+ haats (rural bazaars) that are seasonal marketplaces of various commodities which trading in 140 crops. These marketplaces play host to a variety of commodities everyday. The commodity trade segment employs nearly five million plus traders.

Markets have existed for centuries worldwide for selling and buying of goods and services. The concept of market started with agricultural products and hence it is as old

as the agricultural products or the business of farming itself. Traditionally, farmers used to bring their products to a central marketplace (called mandi / bazaar) in a town/village where grain merchants/ traders would also come and buy the products and transport, distribute and sell them to other markets.

In a traditional market, agricultural products would be brought and kept in the market and the potential buyers would come and see the quality of the products and negotiate with the farmers directly on the price that they would be willing to pay and the quantity that they would like to buy. Deals were struck once mutual agreement was reached on the price and the quantity to be bought/ sold.

In traditional markets, shortage of a commodity in a given season would lead to increase in price for the commodity. On the other hand, oversupply of a commodity on even a single day could result in decline in price—sometimes below the cost of production. Neither farmers nor merchants were happy with this situation since they could not predict what the prices would be on a given day or in a given season. As a result, farmers often returned from the market with their products since they failed to fetch their expected price and since there were no storage facilities available close to the marketplace.

Improvement in the agriculture sector needs an improvement and strengthening at all the levels of the supply chain- inputs delivery, credit, farmers diversifying, improve procurement, minimizing post harvest losses, cold storage chains, better and efficient processing and marketing techniques, efficient storage, warehouses and also efficient and competitive retailing. The development of organized input market and infrastructure for its storage and distribution will add to the productivity of the agricultural sector. Development of cold chain network will help in particular with the perishable commodities and reduce their post harvest losses. Improving the post harvest management means an overall improvement in the per unit productivity.

One such important factor is the linking of the markets- domestic and international through efficient supply chain. The must need for today is the public private partnership, not only in investment but also in the research, extension and policy implementation. Agriculture sector reforms should be initiated at war-footing, to bring together all the

best that's available and make agriculture an organized unit to give farmers the maximum benefits. Turning agriculture into an organized business with the farmer as the entrepreneur should be the key to the second green revolution and for the much desired evergreen revolution in India. Farming should be taken up with the motive of profit making rather than just making a subsistence living.

Existence of a vibrant, active, and liquid commodity market is normally considered as a healthy sign of development of a country's economy. Growth of a transparent commodity market is a sign of development of an economy. It is therefore important to have active commodity markets functioning in a country.

Many nationalized and private sector banks have announced plans to disburse substantial amounts to finance commodity-trading business. The Government of India has initiated several measures to stimulate active trading interest in commodities. Steps like approving new exchanges with modern infrastructure and systems such as online trading, and removing legal hurdles to attract more participants have increased the scope of commodities trading in India. This has boosted the spot market in India.

2.2 OBJECTIVES

The overall aim of the project was to develop, implement and evaluate an integrated extension model which would enable faster and more widespread uptake by farmers.

The key objectives of the project were:

1. To examine the prevailing system of marketing of Castor seed (APMC) in Gujarat.
2. To examine deficiencies in factors impacting market efficiency, such as physical infrastructure, market intelligence and trade practices for Castor seed and suggest measures to improve them.
3. To examine the possibility of adoption of NSEL markets in the case of Castor seed and measure their performance in price risk management and price discovery as well as in handling the situation of surplus and shortages through coordination of storage decisions of market participants.
4. To suggest measures to improve marketing efficiency.

*EXISTING PHYSICAL
COMMODITY (SPOT) MARKETS IN
INDIA*



Instead, the MSP is often higher than the market price, and it has become a subsidy provided by the government.

Large-scale public sector procurement, storage, and transportation of commodities were initiatives that the government actively pursued since Independence. This has protected the interests of farmers with small- and medium-size landholdings.

In a more market-driven agricultural sector that has emerged since the liberalization of the Indian economy in 1991, the physical spot market and derivative markets have become central, both in terms of direct transactions and utilization of prices for information processing and making production decisions.

There are questions that naturally arise in debates about agricultural liberalization: who will maintain the buffer stocks that are currently maintained by government; how will price fluctuations be smoothed; how will farmers not be vulnerable to sharp falls in prices; how will farmers make sowing decisions with highly uncertain future prices; and so on. Commodity futures markets have started playing a major role in addressing each of these questions.

Strengthening Institutions in spot and derivative markets for commodities is vital for reducing the commodity price risk in today's era of economic liberalization. Commodity markets impact the lives of millions of Indians because each participant in the commodity ecosystem is exposed to price risk. This chapter describes the microstructure (market design) prevalent in the physical commodity (spot markets and the scope for making it more efficient.

3.2 REGULATORY FRAMEWORK OF PHYSICAL COMMODITY (SPOT) MARKETS

Agriculture continues to be the mainstay of life for a majority of the Indian population even though its contribution as a percentage of the GDP has decreased to 19% in 2005-06 from a high of 50% in the 1950s. The agricultural sector employs more than 60% of the country's workforce. Significant strides have been made in agriculture production since Independence. The subject of agriculture and agricultural marketing is dealt with both by the states as well as the central government. Starting from 1951, the different Five-Year Plans laid stress on the development of physical markets, farm and off-farm storage structures, facilities for standardization and grading, packaging, transportation, etc. The development of horticulture marketing attracted attention of

policy makers during the 3rd Five-Year Plan. In 1965, Central Warehousing Corporation, Food Corporation of India, Agricultural Prices Commission (later renamed as Commission for Agricultural Costs and Prices) and several other organizations came into existence. Besides, a number of organizations were set up in the form of commodity boards, cooperative federations, and export promotion councils for monitoring and boosting the production, consumption, marketing, and export of various agricultural commodities. The prominent among them included Cotton Corporation of India Ltd (CCI), Jute Corporation of India Ltd (JCI), National Cooperative Development Corporation Ltd (NCDC), National Agricultural Cooperative Marketing Federation Ltd (NAFED), National Tobacco Growers Federation Ltd (NTGF), Tribal Cooperative Marketing Development Federation Ltd (TRIFED), National Consumers Cooperative Federation Ltd (NCCF), etc for procurement and distribution of commodities; and Tea Board, Coffee Board, Coir Board, Rubber Board, Tobacco Board, Spices Board, Coconut Board, Central Silk Board, National Dairy Development Board (NDDB), National Horticulture Board (NHB), State Trading Corporation (STC), Agricultural & Processed Foods Export Development Authority (APEDA), Marine Products Export Development Authority (MPEDA), Indian Silk Export Promotion Council, Cashewnuts Export Promotion Council of India (CEPC), etc. for promotion of production and export of specific commodities.

Most agricultural commodity markets generally operate under the normal forces of demand and supply. However, as discussed earlier, with a view to protecting farmers' interest and to encourage them to increase production, the government also fixes minimum support/statutory prices for some crops and makes arrangements for their purchase on state account whenever their price falls below the support level. The role of the government normally is limited to protecting the interests of producers and consumers only in respect of wage goods, mass consumption goods, and essential goods. The role of the government is to promote organized marketing of agricultural commodities in the country through a network of regulated markets. To achieve an efficient system of buying and selling of agricultural commodities, most of the state governments and union territories have enacted legislations (Agriculture Produce Marketing Committee Act) to provide for regulation of agricultural-produce markets. The

are brought for sale. They are brought for sale only in a few markets. The cold storage units exist only in 9% of the markets and grading facilities exist in less than one-third of the markets. The basic facilities such as internal roads, boundary walls, electric lights, loading and unloading facilities, and weighing equipment are available in more than 80% of the markets. Farmers' rest houses exist in more than half of the regulated markets. All this shows that there is considerable gap in the facilities available in the market yards.

As mentioned earlier, agricultural markets in most parts of the country are established and regulated under the State APMC (Agriculture Produce Marketing Committee) Act. The whole geographical area in each state is divided and declared as a market area wherein the markets are managed by Market Committees constituted by the state government. Once a particular area is declared a market area and falls under the jurisdiction of a Market Committee, no person or agency is allowed to free carry on wholesale marketing activities. The monopoly of government regulated wholesale market has prevented the development of a competitive marketing system in the country, providing no help to farmers in direct marketing, organizing retailing, smooth supply of raw materials to agro-process industries, and adoption of innovative marketing system and technologies.

Efficient agricultural marketing is essential for the development of the agriculture sector as it provides outlets and incentives for increased production; the marketing system contributes significantly to the commercialization of subsistence farmers.

Worldwide, governments have recognized the importance of liberalized agricultural markets. The Task Force on Agricultural Marketing Reforms, set up by the Ministry of Agriculture, has suggested promotion of new and competitive agricultural markets in private and cooperative sectors to encourage direct marketing and contract farming programme, facilitate industries and large trading companies undertake procurement of agricultural commodities directly from the farmer's fields, and establish effective linkages between the farm production and retail chains. There is a necessity to integrate farm production with national and international markets to enable farmers to undertake a market-driven production plan and adopt modern marketing practices.

If agricultural markets are to be developed in private and cooperative sectors and

provided a level competitive environment as compared to regulated markets, the existing framework of the APMC will have to undergo a change. The state has to facilitate varying models of ownership of markets accelerate investment in the area and enable private investment in owning, establishing, and operating markets. Working of existing government regulated markets also needs to be professionalized promoting public-private partnership in their management. An appropriate legal framework is required to promote direct marketing and contract farming arrangements as alternative marketing mechanism. Therefore, there is a need to formulate a new model law for the agricultural market.

3.3 OBJECTIVES OF APMC

- To ensure reasonable gain to the farmers by creating environment in markets for fair play of supply and demand forces,
- To regulate market practices and attain transparency in transactions Aimed at providing proper method of sale, correct weighing, prompt payment and various marketing related services
- Democratic set up to control and manage markets
- Advent of regulated markets has helped in mitigating the market handicaps of producers/ sellers at the wholesale assembling level
- Achieved only limited success and Rural Periodic Markets in general, and the tribal markets in particular, remained out of its developmental ambit.

At the proposal stage, the mandi starts with the goal of trading a principal commodity. After it is commissioned and built, every mandis physically a yard or a set of yards with platforms where licensed traders buy from the farmers and sell to wholesale dealers. Since almost all order flow goes through the mandis, they become a source of daily information about the quantity of commodities and the prices at which they trade. The market design of a mandi is as follows:

3.4 PRODUCTS

Every mandi trades in at least one primary commodity specific to the region. Typically, trading is done in a set of primary and non– primary commodities at any one mandi.

As the seller brings the produce to the market, it is first weighed and both the type and quantity recorded at the entrance by a mandi inspector. The seller is given a certificate of the type and quantity. Some mandis charge a fee at the entrance. Once the produce is recorded at one mandi, it has "free" access to other mandis in the district; ie, the produce does not get double-counted at other mandis, nor is the farmer double-charged. The probability that the farmer will access more than one mandi to find the best price in the region then rests on the cost of transportation and the lack of good packaging and storage during transport.

3.5 MARKET PLAYERS AND MOTIVES AT THE MANDIS

There are different kinds of participants in the markets, which are listed below. Their activities vary slightly according to the markets they operate and they also carry different names according to the place of operation.

1. **Sellers:** A person who has goods to offer for willing buyers to buy. Farmers are the main sellers of produce at the mandis.
2. **Buyers:** A person who buys commodities or products. Buyers are classified as consumer / industrial buyer and buying behaviour vary with time, place etc. Wholesale dealers are some of the main buyers of produce at the mandis.
3. **Broker/ commission agent:** A persons are licensed by the mandi to buy from the farmers who intermediate between the farmers and the wholesale dealers or mill owners. They facilitate trade and take some part of the price margin.
4. **Stockiest:** A trader who buys goods at lower levels and stores it for some time and sells when prices improve.
5. **Hammali:** A person who work as labour for weighing, stitching, sieving, loading & unloading etc.

3.5.1 MOTIVES OF MARKET PARTICIPANTS

The market participants have different kinds of motives to meet physical requirement. The different kinds of motives are listed below

1. Investment motive

A trader who is neither a producer nor a consumer of a produce, but operates in the markets for profit motive is an investor. He works in the market by buying goods and selling it at a later period or in a different market and gains from the price differences. Investment may be subdivided into speculative and arbitrage motive.

2. Speculative motive

A speculator buys, holds and sells commodities in the market to profit from the fluctuations in the market. Risk involved is more when a person operates with a speculative motive.

3. Arbitrage motive

Arbitrage is the practice of taking advantage of a price differential between two or more markets, time periods etc. eg. A person buying in the Palanpur market and selling in the Visnagar market or vice-versa.

3.6 OPERATIONS AT MANDI

3.6.1 TRADING AND CLEARING

The crop is weighed and identified when it comes to the mandi for the first time. The quantity is recorded by the mandi. Trading in the mandi has two stages: one is a dealer market where sellers typically approach the traders for a price quote. Once they find a favourable quote, it is considered sold to the trader. The second is an "open-outcry auction", where the commodity is sold. The auction process has a fixed time at every mandi. The base price decides by mandi on base of last day trade and arrivals on day after that open auction start from sequence of last day starting point. The seller gathers price quotes from the traders and sells to the most profitable trader. Traders clear trades with sellers and buyers on the spot. If the trade is for a primary commodity, the traders pay the minimum support price of the crop. If there is a dispute about crop quality between the trader and either the buyer or the seller, the mandi inspector is the final arbitrator of the problem. At the end of the day, the inspectors collect volumes and price information from the traders. They are charged fees as a fraction of the value of business done.

There is no central dissemination of information of prices. As every lot is auctioned, a new price is set. The collection of prices takes place when the clearing is in process. Once again, this is very like the situation of price dissemination at ending of auctioned.

A cross-check available to the mandi is to tally the total volume brought into the mandi with the volumes reported by the traders. However, this is not fully reliable if sellers choose to exercise their option of moving to another mandi in search of a better price.

3.6.2 SETTLEMENT

Farmers bring the goods to the mandi which they deliver to the trader to whom they sell. Traders, in turn, have this produce picked up by buyers. There are typically no facilities at the mandi for long-term storage. If there is excess produce than could be sold on the same day, the mandi permits the traders to keep the goods at the mandi yards overnight. There are either private or state-owned warehouses that provide storage close to the mandis at a cost.

Once settlement takes place, any dispute that arises about the quality of the good delivered is between either the buyer/seller or the trader. Since one counterparty is always the mandi trader, it is settled by a mandi inspector. Inspectors are the final arbitrators of dispute; they have the onus of checking and certifying the quality of the good, and they have the power to close the trade at a price that they deem correct. Both parties who trade at the mandi have to abide by the inspector's decision.

3.6.3 GOVERNANCE

The mandis are set up and monitored by the mandi board, which is a committee that has representations both by the farmer and the trader communities. There is also a representative from the state government on the mandi boards. The chairman of the mandi board however, is typically from the farmer community. It is the farmer community that usually originates discussions with the SAMB to organize a mandi in a new locality, and this community typically has a large voice in the governance of the mandi.

The operations of the mandi are handled by staffs consisting of a secretary, clerks for record keeping and at least one inspector who is qualified to certify the quality of the

produce. The staffs are paid out of the fees collected from farmers and/or market intermediaries.

3.6.4 OVERSIGHT AND REGULATION

At the spot market, where settlement takes place on a $T + 0$ or $T + 1$ basis, there is very little scope for problems of regulation. The disputes that arise are about prices and quality of the produce, which are typically handled by the mandi inspector. The most important regulatory requirement is the reporting of prices and volumes to the SAMB. Every district mandi board takes the responsibility of collecting and dispatching this information to the SAMB. The SAMB, in turn, dispatches it to the Ministry of Agriculture, where the prices are available on the internet at the end of every trading day.

The presence of the state government representative on the mandi board appears to be the main link for the oversight role of the SAMB.

3.7 CHALLENGES TO EXISTING MARKETS

The main problem, which the farmers face is related to the marketing of their produce. Most of the States have 'Agricultural Produce Marketing Committee Act' which forces the individual farmers to sell their produce only to designated agencies and do not allow them to sell in the open market. There are following lacunas of existing regulated market i.e. APMC

- Lack of vision, leadership, professional competence etc restricts the development of APMCs and increases the corruption and mal practices.
- Poor availability of markets & monopolistic tendencies of APMCs
- Role of APMCs for building integrated channel to connect farm gate to food plate is negligible
- Existing markets do not play a pro-active role in attracting produce.
- The wide dispersal of produces with small quantity, results in costly transportation and handling efforts to ensure the final markets.
- Predominantly marketed to small farmers Hence small marketable surpluses & limited bargaining power

- Numerous intermediaries widely spread between farm gate and consumer increase the cost of consumer but not the value received by the producer.
- Excessive dependence on and consequent exploitation by money lenders which leads to forced sales by farmers.
- Lack of proper price dissemination and transparency in auctions and other trade related activities. Therefore, farmer does not ordinarily get the information about the ruling prices in the big markets. As a result the farmer have to accept whatever price quoted to them and have to believe whatever the traders tell them.
- Local brokers are often in collusion with arathiya and therefore the price which is settled is generally to the advantage of the arathiya and not to the farmer.
- Failure to develop a common trade language.
- Lack of linkage and orientation with R & D institutions, as well as poor market intelligence.
- Lack of proper certification and standardization of commodities & knowledge of quality parameters and standards.
- Lack of modern warehousing and storage facilities.
- Poor Backward and Forward linkages of APMCs with producers as well as agro processing industries.
- Long chain of intermediaries and clumsy transfers, resulting in substantial leakage of value and actual physical loss.
- Limited value addition because of poor linkages to agro processing industries. Even, inefficiencies at post harvest operations like; cleaning, grading, storage, handling and packaging. The losses occur due to excessive moisture, infestation by insects, pests and rodents etc.
- The farmers' ignorance about the spot prices of commodities in mandis before they reach there to sell their produce.
- Lack of an effective mechanism to eliminate price risk. The risk arises due to variations in demand and supply and also due to uncertainties in economic and market conditions.
- Lack of cleaning, grading, packaging & quality certification facilities.

*RESEARCH
METHODOLOGY*

4. RESEARCH METHODOLOGY

4.1 SOURCES OF DATA

Primary and secondary source of data are used to conduct the project.

Primary data: different level of stakeholders

Secondary data: internal organizational records, reports & publication, books, internet

4.2 METHOD OF DATA COLLECTION

A qualitative approach of data collection through semi-structured questionnaires is used for different level of stakeholders. Responses are collected personally through personal depth interview, focus group discussion and observation.

4.3 SAMPLING PLAN AND SAMPLE SIZE

Sample Size: Due to limitation of time horizon it is not possible to contact all stakeholders. Keeping in mind these constraints, 1000 respondents are taken.

Sample unit: members, employees, farmers, traders, aggregators, millers, investors, speculators & labours.

Sampling Design: Random sampling is used for the selection of respondents.

4.4 METHOD OF DATA PROCESSING AND ANALYSIS

There are various management tools used to analyze the various situation present in market i.e. SWOT, Price analysis, Cost analysis and comparison and Averages etc.

*ELECTRONIC SPOT MARKET:
AN EMERGING CONCEPT*

5. THE ELECTRONIC SPOT MARKET: AN EMERGING CONCEPT

When we seek to understand electronic commodity markets in India, there is a need to know more about the market design which is presently in use. In this subsection, we seek to closely describe one electronic commodity market as a case study: The electronic spot market, which is located at Palanpur. The electronic spot market at Palanpur is operated by a private firm, National Spot Exchange Ltd.

5.1 NSEL CONCEPT

- NSEL is poised to set up a delivery based e-market (a national level electronic transparent institutionalized spot market).
- It provides a place, where farmers can sell at the best possible rate, end users can buy at the most competitive rate and NSEL would provide counter party guarantee in respect of all trades.
- NSEL would also provide services like quality certification, storage of goods and other customized value added services.
- NSEL would strengthen the future market by creating a delivery platform, which can be used by the buyers and sellers to procure/ dispose off deliveries.
- After launching of NSEL, the canvass of commodity trading would be complete. India will have both spot and future market available on electronic platform with national reach.

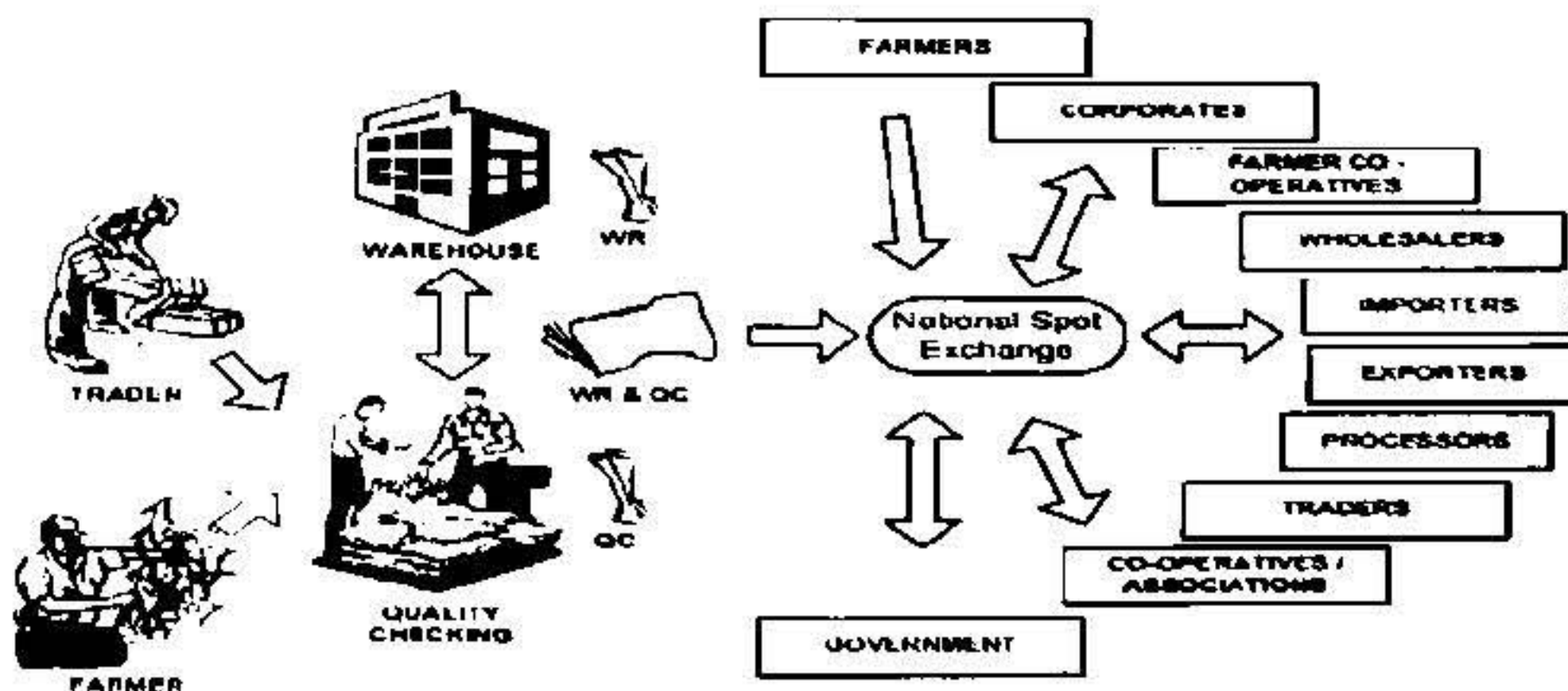


Fig. 1. National Spot Exchange services

5.2 CONTRACT DESIGN

There are different types in the castor seed i.e. small, bold etc. However, NSEL trades only Gujarat- Castor seed small for its farmers and trader contract, Palanpur.

All contracts are written with physical settlement on $T+0$ for farmer contract and $T+7$ for trader contract. The settlement price is generated through NEST system on basis of buyer-seller price quotation on electronic platform.

5.3 TRADING, CLEARING AND SETTLEMENT CYCLE

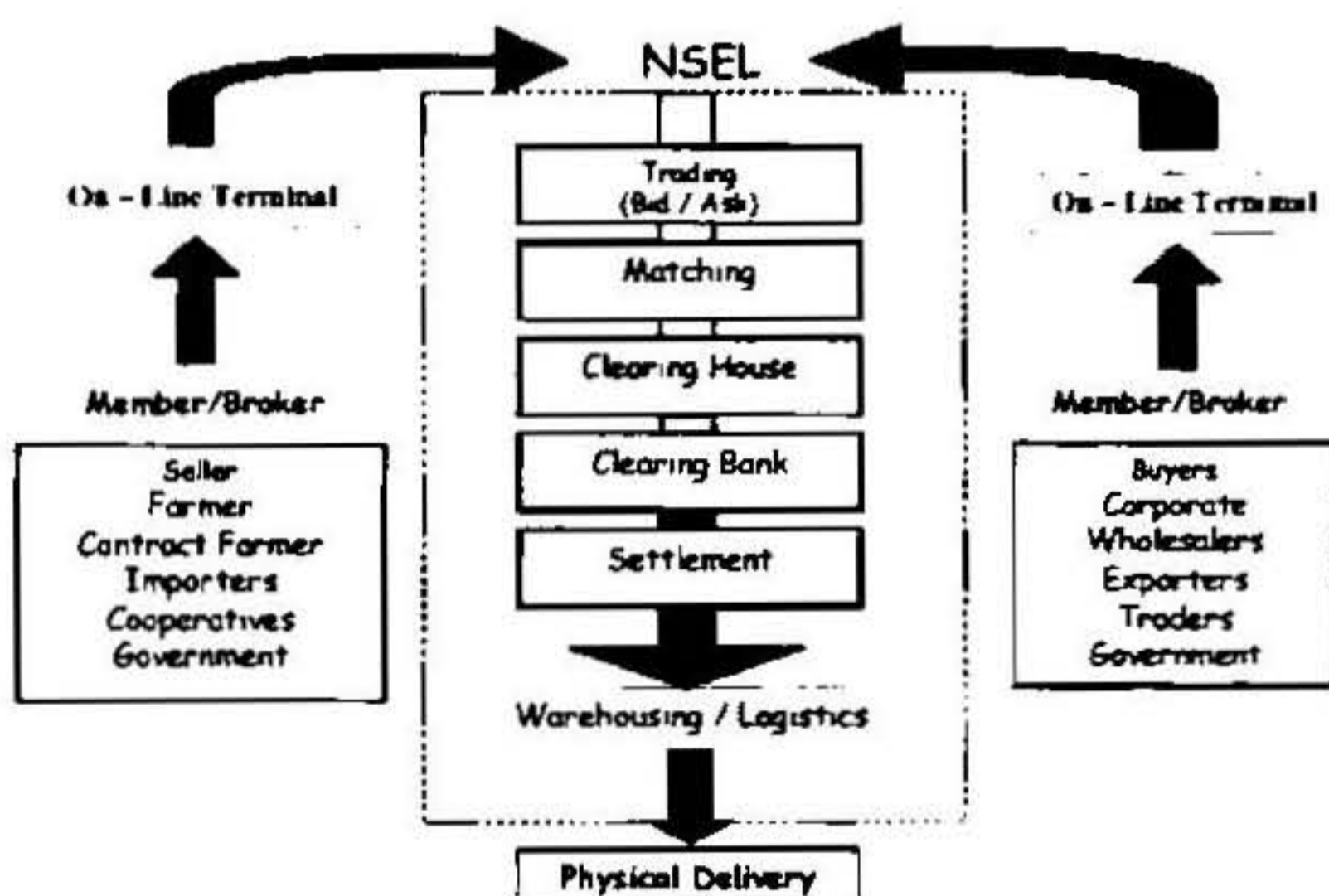


Fig. 2. Trading, clearing and settlement cycle

5.3.1 TRADING SYSTEM

National Spot Exchange is providing an online screen based trading system, which can be accessed through VSAT, leased line or internet. Exchange has launched daily expiry contracts for various agri-commodities, which can be traded from 10 am to 4 pm for farmer's contract and 6 pm for trader contract. The positions outstanding at the end of the day will result into compulsory delivery. But during the day, the transactions of offsetting nature will be netted off and delivery will be executed only with respect to the net quantity outstanding at the end of the day. All the terms relating to quality

specifications, place of delivery, date of delivery and other conditions will be specified by the Exchange in advance and all contracts executed on the system would be on the basis of such terms only.

The price band is 2% up or down on a daily price for a 20 kg, set by the FMC, and are said to be rarely binding.

The exchange charges Rs.500 per one lacks transaction in farmer contract, out of which Rs.75 is brokerage that has to be paid to the trading member at the end of the month and Rs.500 per lot (150 bags x 75kg) & Rs. 20 per lacks for transaction charge and warehouse receipts transfer in trader contract and member charge their brokerage as per their policy.

5.3.2 DELIVERY, CLEARING AND SETTLEMENT

All trades executed on a day will be netted off at the end of the day as per the weighted average price of last 30 minutes. The profit / loss arising would be settled on the basis of MTM on the next day. The net sellers have to give delivery by way of depositing goods in the Exchange designated warehouses / storage tanks as specified in the Circular. The buyer's account will be debited by the Exchange and delivery order will be handed over to them after ensuring that payment is through and Pay out will be credited to the seller's account.

In case the seller fails to give delivery, the position will be auctioned / closed out at the risk and cost of the seller separately. In case the buyer fails to make payment, the buying position would be auctioned by the Exchange at the risk and cost of the buyer.

5.3.3 RISK MANAGEMENT, MARGINING AND SURVEILLANCE

The Exchange is using various tools for risk management, margining and surveillance to ensure market integrity. All positions outstanding in the market would be subject to margin payable by both buyers and sellers. However, if the sellers have deposited goods in the Exchange designated warehouses, margin will not be applicable on such positions.

5.3.4 SETTLEMENT GUARANTEE FUND

The Exchange will guarantee performance of all contracts executed on the Exchange platform. For this purpose, the Exchange will maintain a settlement guarantee fund. Notwithstanding default of any member, the pay out will be declared as per the Exchange schedule.

5.3.5 PARTICIPANTS

Trading on the exchange is done by Trading cum clearing members (TCMs). Clients can clear their trades only through trading members.

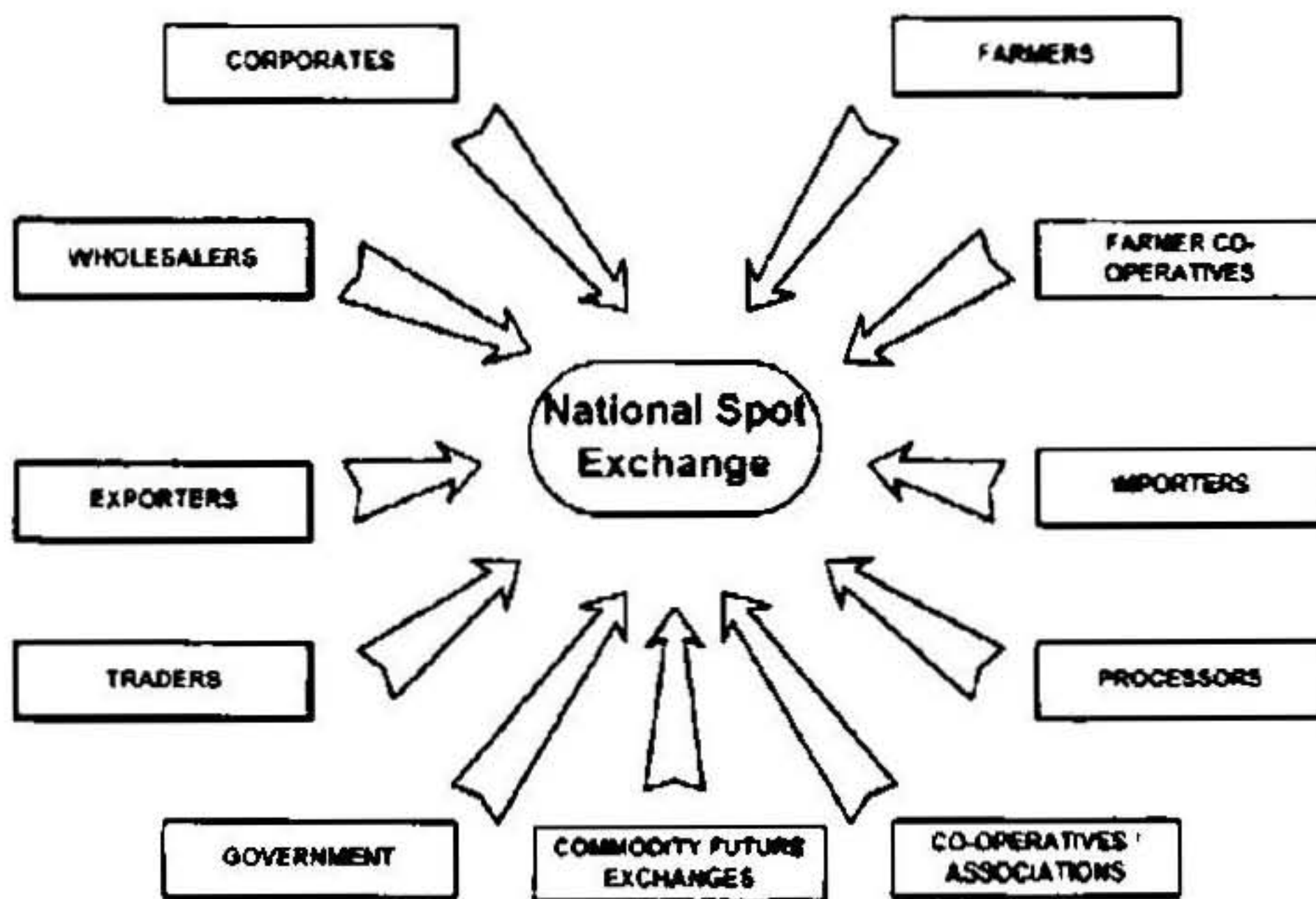


Fig. 3. Participants of National Spot Exchange Ltd.

5.3.6 GOVERNANCE

The exchange is governed by a board of directors, SAMB and FMC. The board is in charge of taking important decisions like how a bankruptcy is to be "dealt with"

The day to day management of the exchange operations is carried out by the exchange staff, partner firm and members. None of the management staff can take positions or trade themselves.

There are several trading member committees to deal with specific problems at the exchange, such as:

1. Clearing house committee: decisions on disputes at the clearing house.
2. Daily rates committee: decides the daily opening, high, low and close of the day.
3. Survey committee: certify the quality of the goods transferred from buyers to sellers.
4. Arbitrators: Every dispute is handled by two designated arbitrators, one appointed by each of the two conflicting parties.
5. Vigilance committee: investigates any violation of the exchange bye-laws, rules, regulations and the FCRA, 1952.

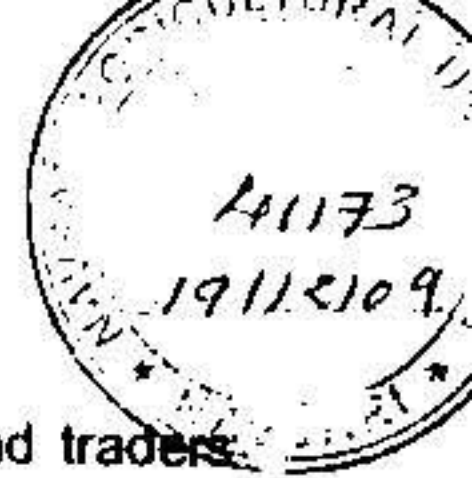
5.3.7 REGULATION

The Forwards Markets Commission (FMC) is the regulatory body for commodity spot markets. Daily reports of the prices, positions and margins of each of the trading members are passed onto the FMC at the end of every trading day. Position limits, margin rules, fees and charges have also to be approved by the FMC.

The FMC and SAMB or mandis both plays an important regulatory role in the running of the electronic spot markets.

5.4 SERVICES OFFERED BY NATIONAL SPOT EXCHANGE

- Common National level platform for buying selling commodities with efficient price discovery
- Integrate the fragmented market electronically
- Electronic spot trading facility in multiple commodities with specific delivery centers
- Grading, quality certification and standardization of commodities



- Efficient spot price discovery, price dissemination small producers and traders get equated with large consumers or traders
- Facilitating collateral financing and borrowing against warehouse receipts
- Customized services relating to storage, transportation, logistics handling and shipment
- Trade and payment guarantee
- Procurement and disposal of commodities through online trading system
- Market Intelligence Reports

5.5 ADVANTAGE TO BUYER/ CORPORATES/ EXPORTERS/ IMPORTERS

- Saving money in terms of purchasing material and employment cost
- Availability of grading and standardization material at competitive rate
- Complete avoidance of hassles relating to purchasing material from traders, farmers and physical market operations
- Looking at the price available at National Spot Exchange, they can make export commitment and cover themselves immediately by buying at National Spot Exchange
- Customized services regarding logistics and storage can be provided by National Spot Exchange i.e. procurement at outstation
- Facilitates bulk procurement operations without counter party and quality risks

5.6 ADVANTAGES TO FARMERS

- Realizing the best possible price at the time of sale for agricultural produces
- Access to a national level transparent market, where direct selling to processors or end users would be feasible
- Increase in holding capacity due to availability of warehouse receipt financing
- Increase in bargaining power due to availability of an alternative market
- Cost reduction in handling and other activities
- Trade and payment guarantee

5.7 ADVANTAGE TO TRADERS

- Elimination of credit risk in physical trade will be the real boon to the traders

- Traders would get a bigger market, where they can sell huge quantity.
- In physical market, they always face the risk of counter party defaults, which will be totally guaranteed on National Spot Exchange platform. A settlement guarantee fund would be maintained for this purpose.
- Since large number of investors from all across the country would be available at National Spot Exchange platform, they can realize better price for their product.
- They can expand their activities to multiple commodities, because of operational ease, availability of finance and absence of counter party risk under National Spot Exchange system.
- It will provide a platform through which local traders will be able to negotiate price of their commodity with the end users spread across the country at negligible cost.
- Growth of a structured, transparent, institutionalized, electronic Common Indian Market. Commodity Futures Exchanges would get a fair transparent spot price for settlement of their contracts.
- Operational comfort. Instead of contacting various suppliers or brokers, they can see the best prices on the system or they can submit their own buy prices too.
- National Spot Exchange would function as a single window system for procurement of various materials. Common National Level Platform for Buying and Selling of Commodities

5.8 ADVANTAGES TO ARBITRAGEURS

- Advantage of cash-future arbitrage electronically
- Disposal of deliveries received on Future market
- Jobbing and spread trading between cash and futures

5.9 ADVANTAGES TO FUTURES EXCHANGES

- Transparent spot price available for Due Date Rate calculation
- Ease of moving towards compulsory delivery contracts through structured spot market
- Healthy growth of futures market ensured through development of the structured spot market

5.10 ADVANTAGES TO STATE GOVERNMENT & APMC

- Better realization of cess, because all deliveries can be tracked. National Spot Exchange will provide a statement of all physical deliveries along with name of traders every month.
- Better realization for the farmers, which accelerates the pace of economic development in state.
- It promotes industrial activity, processing and export due to assurance of uninterrupted supply of raw materials through NSEL.
- Various centers in the State emerge as important trading hubs, which generates lot of direct and indirect employment.
- All these objectives are achieved without any load on the exchequer- no subsidy, no grant, no tax holiday, no investment, no land allotment, no loss of revenue and no loss of APMC cess.

*DATA PROCESSING
AND
ANALYSIS*

6. DATA PROCESSING AND ANALYSIS

6.1 Indian and Global demand-supply scenario of Castor seed

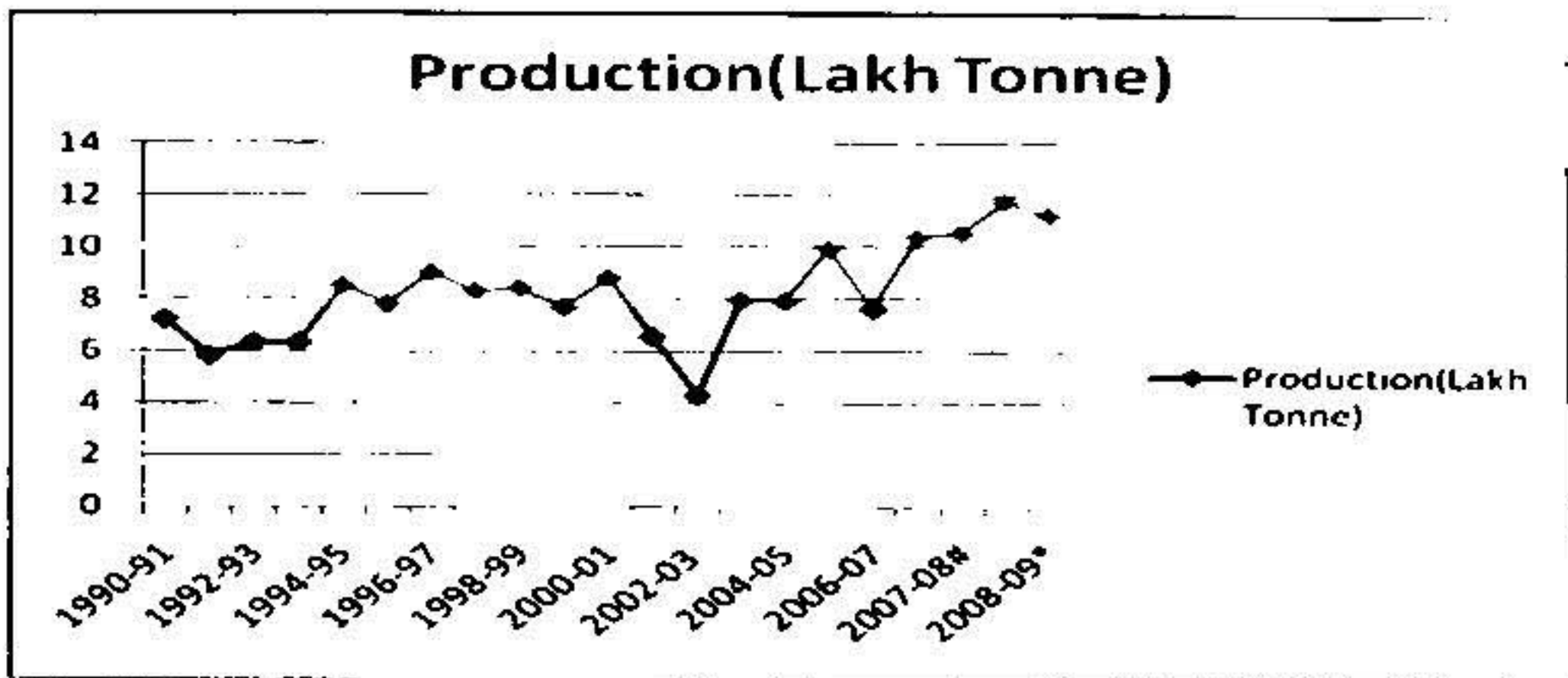


Fig. 4. Yearly production of Castor Seeds in India (lakh tonnes) (1990-2009)

As can be observed from the above graph, India's castor seed area and production noted steady improvement from 1990's to 2008. However, the production of castor seed in the country fell from 7.00 – 7.50 lakh tons in 1990-2000 to 5.00 - 5.50 lakh tons in 2000-01 because of lower acreage due to poor price realization by the farmers from their 1999-2000 crops. After 2002-03 production and acreage steady improve due to better price and production.

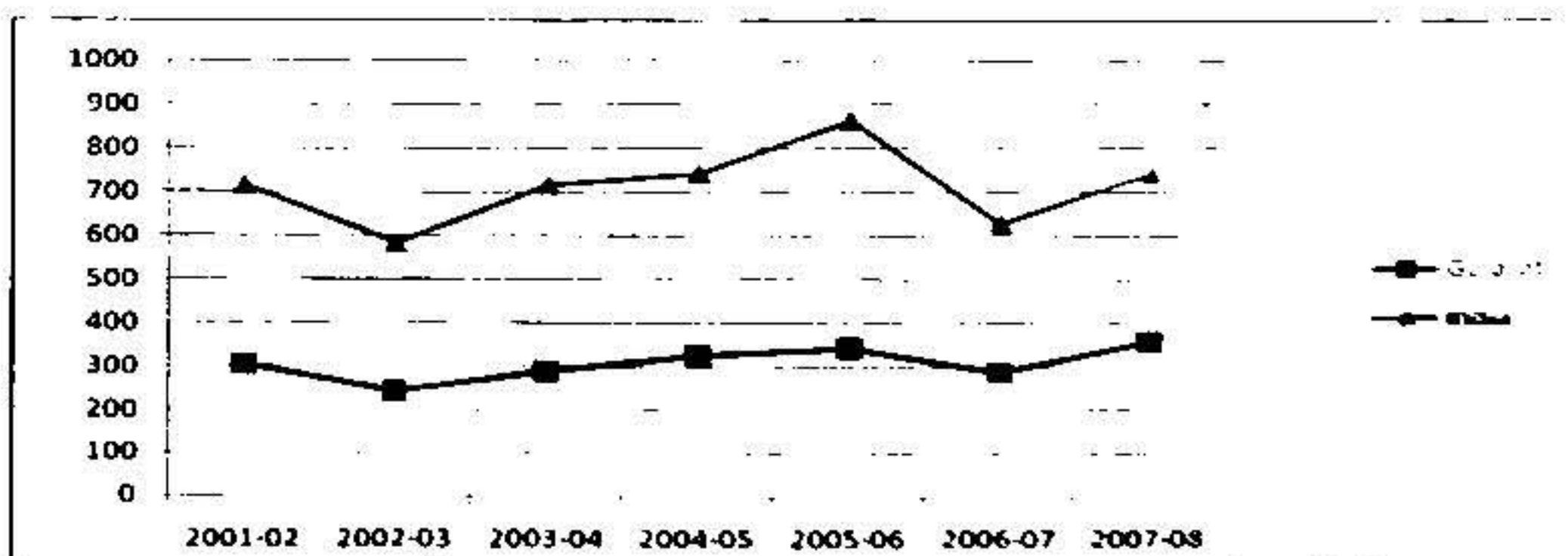


Fig. 5. Year wise comparison of Castor seed growing area in Gujarat and India (000' ha) (2001-08)

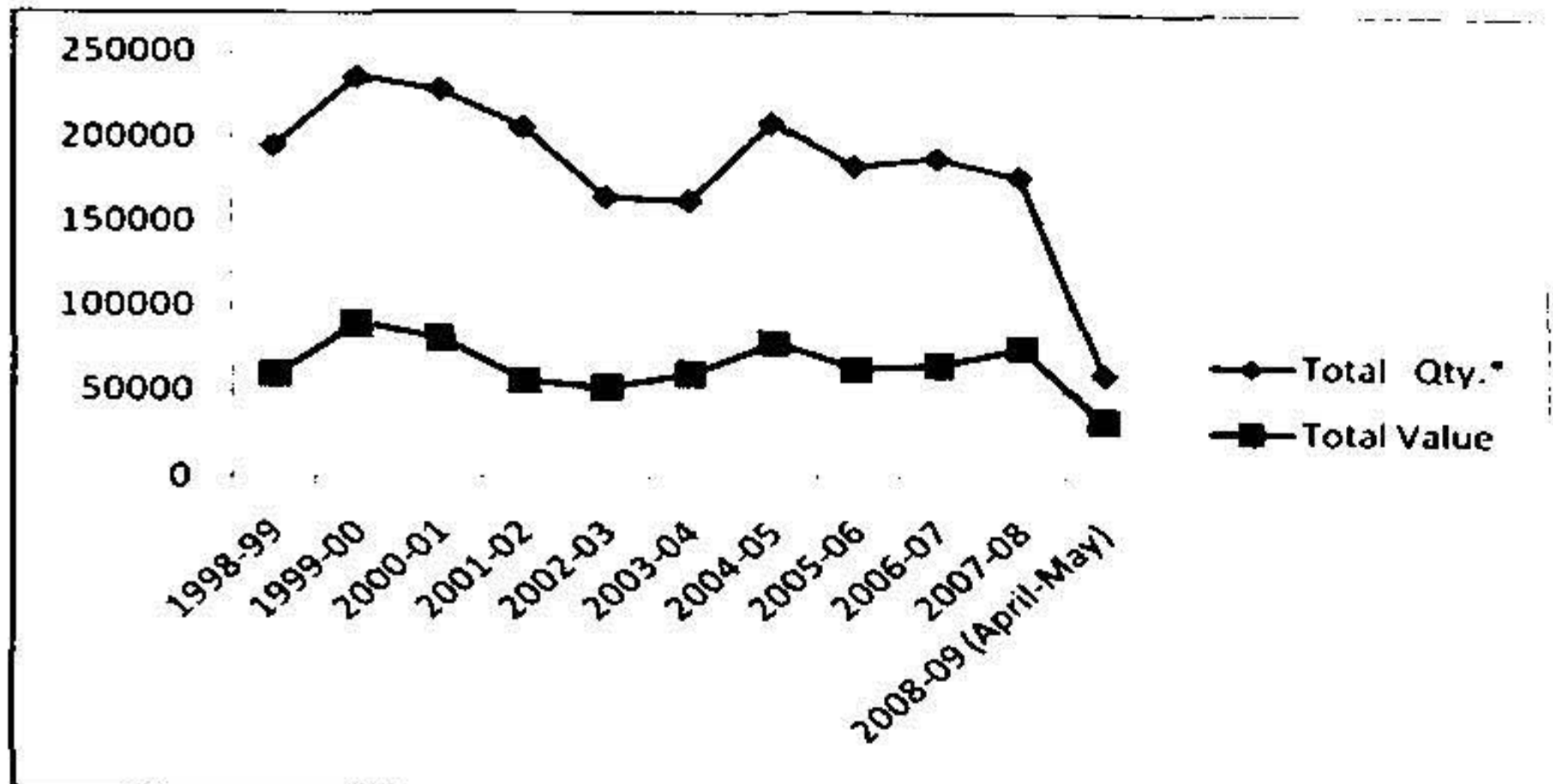


Fig. 6. Year wise export of Castor oils in quantity (MT) and values (Lakhs) (1998-2008)

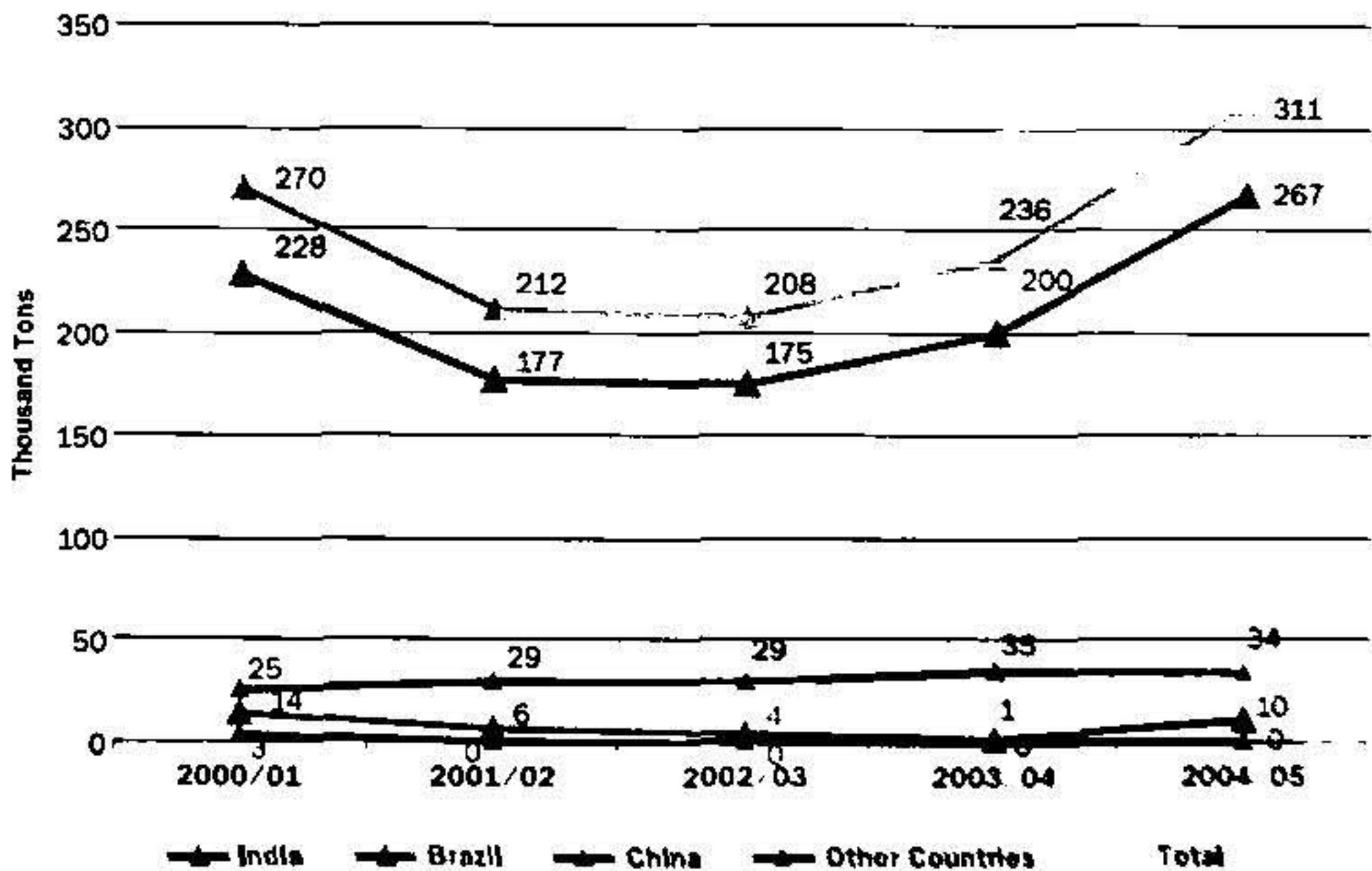


Fig. 7. Castor oil: World export- top exporter

The castor trade as such is very small in global context with a weak link between manufacturers and end consumers.

India is the biggest producer of castor seed (62.4%) followed by China (19.2%) and Brazil (12.7%).

France, China, USA and Germany are the biggest importer of castor oil distributing about 16%, 14% and 13%, respectively, among themselves.

Import trends in the past two years show increases at most of the major importing destinations indicating an increasing demand for castor oil.

Major increases in 2004-05 were for China (194%), the Netherland (56%) and the USA (52%) over the previous years.

6.2 Market Arrival and Monthly Sales Pattern of Castor seeds at Palanpur

Data shows that over the time there has been a substantial increase in the quantity arrivals at NSEL platform because of fair prices, methods of quality inspection and awareness of NSEL within farmers.

Table 1. Daily Average Prices and arrival of Castor seed at APMC and NSEL, Palanpur (2009)

Date	APMC (Palanpur)			NSEL			
	Low/ High	Avg.	Vol.	Jagana		Palanpur Mandi	
				Avg.	Vol.	Avg.	Vol.
09\02	445/ 451	448	1436	460	78	NA	NA
10\02	440/ 450	445	1470	458	54	NA	NA
11\02	446/ 455.70	450.85	1332	467	90	NA	NA
12\02	440/ 445	442.50	1053	457	83	NA	NA
13\02	432/ 440	436	989	451	148	NA	NA
14\02	428/ 432	430	1025	441	3	NA	NA
16\02	415/ 425	421.5	1170	441/42	83	NA	NA
17\02	408/ 414	411	1098	423	0	NA	NA

18\02	409/ 419	414	783	428	18	NA	NA
19\02	403/ 411.2	407.1	1185	418	19	NA	NA
24\02	406/ 414	410	1582	422	48	NA	NA
25\02	407/ 417	412	1430	425/30	101	NA	NA
26\02	410/ 420.40	415.2	1129	430	99	NA	NA
27\02	412/ 418.50	415.25	926	430	68	NA	NA
02\03	411/ 415	413	1240	426/30	106	NA	NA
03\03	416/ 421	418.5	1394	430/33	79	NA	NA
04\03	415/ 428	421.5	1595	430/34	125	NA	NA
05\03	429/ 438.60	433.8	1907	438/47	40	NA	NA
06\03	430/ 434	432	1687	435/44	160	NA	NA
09\03	431/ 435.80	433.4	1735	442	38	NA	NA
12\03	430/ 437.50	433.75	560	442/45	104	NA	NA
13\03	423/ 436.60	429.8	1190	442/45	58	NA	NA
16\03	431/ 436.50	433.75	2233	438/42	161	NA	NA
17\03	435/ 446	440.5	2424	450	103	NA	NA
18\03	441/ 449	445	2160	453	61	NA	NA
19\03	435/ 440	437.50	2068	448	54	NA	NA
20\03	436/ 445.2	440.6	2467	452	45	NA	NA
23\03	435/ 443	439	2165	452	90	448	29
24\03	435/ 448	441.5	4341	452	11	448	40
25\03	436/ 442	439	2914	450	5	448	55
26\03	434/ 439.50	436.75	2390	448	67	444	19
27\03	NA	NA	NA	452	22	444	5
30\03	NA	NA	NA	452	21	444	0
31\03	NA	NA	NA	452	18	444	2

02\04	433/ 445	439	2100	453	32	445	274
03\04	437/ 449	443	4925	453	93	445	17
06\04	436/ 445	440.5	4607	448	72	442/45	49
08\04	434/ 443	438.5	4610	448	73	443/44	125
09\04	434/ 443	438.5	7316	448	16	443	42
13\04	445/ 457	451	5328	463	71	458	89
15\04	440/ 460	450	6466	464/67	47	459	194
16\04	450/ 469	459.5	4352	472/73	107	468	58
17\04	465/ 481	473	3590	485	19	487	30
20\04	468/ 483.60	475.8	1620	492	19	487	30
21\04	466/ 485	475.5	3440	492	72	481	72
22\04	471/ 486	478.5	3833	492	21	488	132
23\04	468/ 481	473.5	3125	490/92	34	488	240
24\04	467/ 474	470.5	2990	483	78	480	77
27\04	457/ 468	462.5	3120	476/78	67	471	67
28\04	457/ 467	462	2168	476/78	85	471	22
29\04	461/ 476	468.5	2333	480	3	482	200
04\05	478/ 487.70	482.85	2688	495	64	490	172
05\05	NA	NA	NA	495	101	490	68
06\05	470/ 480	475	2767	492/94	28	487	225
07\05	467/ 477	472	1202	487	38	483/85	293
08\05	471/ 481	476	995	487	48	480	1
09\05	472/ 481	476.5	2795	490	64	487	150
11\05	469/ 477.60	473.3	2765	491	120	485/88	220

Table 1 shows the composition of arrivals of castor seeds in the regulated market yards and NSEL centres at Jagana & Palanpur during Feb. to May 2009. In Palanpur market yard there are around 300 traders shops of which 100 are working in castor seed therefore, we estimate that each shop have 20 bags of volume per day which is very less as compare to newly establish market by NSEL due to providing fair price to producers.

6.3 Marketing Practices, Marketing Costs and Price Spread

Table 2 shows that cost of marketing practices at APMC which utilize for cost calculation of buyer and seller, according to APMC Act all charges incurred by the buyer for purchase of materials.

Table 2. Rate of Commission/Market Charges at the APMC, Palanpur

Item	Unit/Per	Rate (Rs.)	Recoverable from
Market Fee	Rs. 100	0.60	Purchaser
Commission Charge			
Kutchra Adatiya	Rs. 100	1.25	Purchaser
Pakka Adatiya	Rs. 100	1.00	Purchaser
Hammali/ Weighman Charges			
Unloading	Per bag	1.50	Seller
For weighing, Sieving & Bagging (Tolai)	Per bag	3.00	Purchaser
For stitching & stacking	Per bag	2 to 3	Purchaser
For loading in truck	Per bag	2 to 3	Purchaser
For lifting from market to owner shop	Per bag	5 to 7	Purchaser

Table 3. Cost incurred by buyer when it purchase from Palanpur mandi and NSEL platform

Particulars	Palanpur mandi (Rs.)	NSEL, Jagana	NSEL, Palanpur Mandi
Base price i.e. Castor Seed Auction Price at Palanpur mandi	450	450	450
APMC Cess - @ 0.6%	2.70	2.70	2.70
Commission @1.25% -Kutcha Adatiya	5.63	N.A.	N.A.
NSEL Transaction Charges- @Rs 500/- per One Lakh of Turnover	N.A.	2.25	2.25
Hammali Charges – Weighing, Sieving, Bagging, Stitching (5Rs/Bag)	1.33	1.33	1.33
Transportation within Mandi to owner shop (5Rs/bag)	1.33	N.A.	N.A.
Commission @1.00% -Pakka Adatiya	4.61	N.A.	N.A.
Interest cost for paying VAT & getting return - considered upto 3 Months [VAT @ 4% on 1895.57 is Rs 75.82. Interest cost for 3 months for Rs. 75.82 @ 18% p.a. is Rs.3.41/-]	0.89	0	0
Cost to ultimate buyer excluding transportation	466.49	456.28	456.28

Table 3 shows that profitability to buyers for purchase of castor seed from APMC or NSEL platform. It clearly shows that if buyer purchase from NSEL platform than it get quality material at 10 to 12 Rs. per 20 kg cheaper from open auction in APMC market. It is due to elimination of intermediaries from previous long supply chain.

Table 4. The difference between Open outcry auction and online trading

Open-outcry	Online trading
Participants congregate in a "ring" to discover prices	Participants put orders on-line to discover prices
Physical presence in exchange premises required	Orders routed through electronic networks
Price quotations/ traded prices not transparent	Quotations and traded prices available on-line
Cannot facilitate on-line real time price dissemination	Real time price dissemination possible
Monitoring of member's positions and risk management practices cumbersome	On-line monitoring of member positions

Table 5. Comparison of different Markets

Particulars	Spot market (mandi)	Future market	Electronic spot market
Operates through	More than 9000 APMC's	MCX, NCDEX, NMCE and 24	Regional exchanges NSEL
Reach	Confined to particular	market place	Across the country through
Delivery	Immediate	At expiry	0-7 days
Leverage	No	Yes	Partial
Risk	Less	High	Average
Returns	Less	High	Average
Quality	Verified	Standardized	Standardized
Regulation	State APMC Acts	FMC	FMC & State APMC

Table 6. Farmers unable to use APMC/ NSEL - Reasons

Sr. No.	Reason Cited	Percentage of sample farmers not selling through the regulated markets	
		APMC	NSEL
Reasons Related to Markets/Marketing Practices			
1.	Distance	31.2	9.3
2.	No knowledge of APMC/ NSEL i.e. price	8.0	19
3.	Payment delay	7.8	10.2
4.	No provision for other commodity sale	5.4	12.3
5.	Harassment by Hamals/cheating in the weighment/ removing 4-5 Kgs	3.1	1
6.	Long wait for weighing	1.4	1
Reasons not related to the Regulated Markets			
7.	Good price at the local market	18.4	16
8.	Small quantity	12.7	4.2
9.	Advance taken	9.0	23.4
10.	Others	3.0	3.4
Total		100	100

According to the survey of different participant, I conclude that there are various reasons of not utilizing facilities provided by APMC/ NSEL market by farmers to sell their produce because of certain reasons i.e. advances taken from traders, no knowledge of APMC/ NSEL price, payment delay and no provision for other commodity sales etc.

6.4 SWOT Analysis

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Better and transparent price realization to the farmers as compared to Mandi • Online Participation of buyers from all across country without physical movement to point of purchase • Partnerships (exchanges, finance providers, NGOs) allow for model to be scaled without "new" investment • Team expertise • Transparency in transaction & settlement • Negligible brokerage • Complete end to end solution • Guaranteed trade with weighment/ quality assurance • Counter party guarantee provide by the exchange 	<ul style="list-style-type: none"> • Requires significant amount of education to be given to farmers • Not provide advances to farmers • Less flexible than the trader/ commission agent shop • Trader & commission agent have more familiar with farmers • Dependent upon volume/demand on the exchange • Time bound working of exchange
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Futures and options offering to farmers • Arbitrage opportunities • Network of branches working with farmers can allow for other products and services to be sold or given to farmers (e.g. finance, warehouse, etc) 	<ul style="list-style-type: none"> • Farmers are habitual with present marketing condition • Age old long relationship between farmers and traders at Mandi • Dependence of small farmers on traders for agricultural loan • Existing traders could react in hostile manner • Commodity risk management

*FINDINGS
&
RECOMMENDATIONS*

7. FINDINGS & RECOMMENDATIONS

7.1 FINDINGS

After analyzing the collected data, there are many things came out from the interpretation. Among of them some key things shined with their importance in existing system which can be summarized as-

- Lack of awareness about NSEL: Around 70 per cent of farmers yet not known or fear of go to new market.
- Delay in price dissemination: Buyers are waiting for auction in APMC to provide higher price to farmer on NSEL platform.
- Long time waiting for weighment & payment: Due to transferring material, single bag weighing and quality inspection its take lot of time for quality certification as well as delay in trade at higher price which delay payment.
- Rigidity in operations: Process of quality inspection, supply of materials to buyers and backward linkages
- Labour problem: Due to fluctuation in volume NSEL can't afford permanent labour at this stage as well as they engage at another shops.
- Advance taken from trader: More than 30 to 40 per cent of farmers taking advances from traders.
- No provision for other commodity sales: Recently NSEL working with Castor seeds only therefore seller can't sell other commodity at same platform.
- Fear to sell their produce at NSEL, Jagana by farmers: Due to false image of IHSEU Agrochem Pvt Ltd. farmers fear about cheating with them.
- Trader make false image of NSEL: Traders provide wrong information to farmers about NSEL i.e. if you go there than first time they will give better price after that they cheating with you.
- Harassment by hamals: Hamals charge for tea or delay in work.
- Well establish other market
- High price at local mill i.e. motor bilty: There are different mills available near NSEL centre which give higher rate than NSEL rate which create direct effect on volume.

- Depend on unique buyers: Few buyers join with NSEL which leads lesser price difference than the local APMC market.

7.2 CONCLUSION

In day-to-day reality of the business, Supply chain formation, value addition and efficient market are creating equality between trade partners. The sustainable and professional relationships between them play a vital role. The government as well as private sectors is having two fold responsibilities in cross border trading. On one hand a good climate in Agri-value chain and market is required to develop and on other hand to create better environment for small and marginal farmers by proving them a holistic platform.

In this paper, the proposed NSEL model indicates the role and responsibility of the public and private sectors to strengthen the market competitive ness of Indian agriculture.

7.3 RECOMMENDATIONS

There are a few recommendations which we would like to mention in order to make the system more accurate and easy to manage.

1. NSEL have to consider promotional activity at vast scale for awareness among the participants i.e. Demo van, weekly campion on specific pocket, appoint local responsible person who is able to create right image and awareness about working system.
2. Increasing numbers of participants which create healthy competition, better price discovery at right time as well as strong brand image.
3. Provide flexibility in operations which leads to overcome some nonsense problem occurred during routine operations e.g. deal with specific person for specific work, make systemic work mode & diversify responsibility and provide facilities to smoothening all operation.
4. Provide facilities which NSEL say in their promotional activities.
5. Make similar design of the farmer's and trader contract which provide opportunities for investors to buy from farmer's contract and sell in trader contract for making profit on investing money for specific time period.

6. Make ideal contract design which attracts numbers of participants as well as acceptable by all participants.

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BIBLIOGRAPHY

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APPENDICES
&
ANNEXURE



National Spot Exchange Limited

Circular

Ref. No.: NSEL/TRD/2009/022

March 21, 2009

Dear Members,

Launch of Spot Trading in Castor Seed Farmers' ex-Jagana Contract

In terms of the provisions of the Rules, Bye-Laws and Business Rules of the Exchange, the Members of the Exchange are notified as under:

Castor Seed Farmers' ex-Jagana Contract will be launched for trading on Monday, the 23rd March, 2009. Details of the contracts and settlement procedure are as under:

- 1) Contract Specifications - enclosed as Annexure 1
- 2) Settlement procedure including delivery related charges - enclosed as Annexure 2, and
- 3) Auction procedure - refer circular no. NSEL/C&S/2008/029 dated 26th November 2008.

Transaction fee of Rs. 500/- for every one lakh of turnover will be charged to all the buyer members on a weekly basis, notwithstanding the waiver of the transaction fee contained in our earlier circular no. NSEL/TRD/2008/012 dated 11th October 2008.

The terms and conditions of the above referred contract and the process relating to the settlement thereof will be binding on all the members of the Exchange and clients trading through them.

For any clarification, the following officials of the Exchange can be contacted -

- 1) Mr. Dipesh Shah at +91 9428 827 542 or through email at dipesh.shah@nationalspotexchange.com, and
- 2) Mr. Amit Mukherjee at +91 9930 267 951 or through email at amit.mukherjee@nationalspotexchange.com.

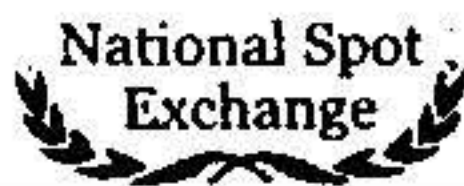
For and on behalf of
National Spot Exchange Ltd.

Narsing Rao
Vice President

Encl.: As above

Contract Specifications of Castor Seed Farmer's ex-Jagana Contract

Commodity	Castor Seed
Symbol	FCASTJGN0
Description	Castor seed Ex-Jagana Delivery Farmer Contract
Contract	
Daily contract	Buying and selling on intraday basis will be permitted, but all positions outstanding at end of trading session on the same day must result into compulsory delivery on same day.
Trading period	Monday to Friday except Exchange specified holidays
Trading session	Monday to Friday: 10.00 a.m. to 4.00 p.m.
Trading related information	
Trading unit	1 bag (75 kg)
Quotation/Base Value	20 kg
Tick size (minimum price movement)	Rs. 0.10
Daily price limits	2%
Price Quote	Ex Jagana NSEL warehouse exclusive of expenses, APMC Cess and taxes (Price of loose grain at NSEL designated warehouse).
Initial margin	3%
Maximum Order Size	7500 kg (100 bags)
Delivery related information	
Delivery unit	75 kg and in multiple thereof (with tolerance limit of 5 kg)
Delivery Period Margin	3%
Delivery center(s)	Exchange designated warehouse at Jagana
Delivery Logic	Compulsory
Quality Specifications	
Sampling Procedure	<p>A. No of bags less up to 2: 100% testing will be done i.e. full bags will be sieved for foreign matter.</p> <p>B. No of bags more than two up to 150 bags-</p> <ul style="list-style-type: none"> • A group of bags sold by a single seller up to 150 bags will constitute one single lot. If the number of bags sold by a single seller is more than 150, it will be treated as a separate lot for the purpose of quality testing. • Two bags to be selected for sieving through a 4 mm X 4 mm Mild steel Sieve. • The first bag will be selected at random basis. • The second bag will be selected in the process of online sampling from each bag. • Apart from this, the Exchange reserves the right to conduct testing of test weight by taking a composite sample through online sampling.
Deliverable Grade	Gujarat - Castor Seed Small
Moisture Content	Acceptable Range 4 to 5%. Checked by Test Weight Basis.
Oil Condition	Acceptable Range 44% to 48%. Checked by Test Weight Basis.



Testing Method	<p>Test Weight: Done by filling composite sample made from an entire lot in an aluminum tin having a capacity of 4.2 litres subject to the specified acceptable range –</p> <ul style="list-style-type: none"> • Acceptable weight – 2230 Grams • Between 2230 gms to 2000 gms – deduction of Rs.5/- per 20 kg • Below 2000 gms - Deduction of Rs.10 /- per 20 kg
Physical Impurity	<p>Dust (Raj.) – Sampled bags will be sieved for finding dust. Allowable upto 350 gms per bag with no Deductions. In case dust is between 350 gm to 700 gms per bag, the deduction in weight will be the weight of dust over and above 350 gms of dust from all the bags. In case dust is found above 700 gms per bag, then actual weight of dust will be deducted from all the bags.</p> <p>Stone - Actual weight of stones to be deducted from weight of the bag Upto 300 Gms – 1:1 From 301 Gms to 500 Gms – 1:2 Over 500 Gms – 1:3</p> <p>Husk (Fotri) – Up to 1 Kgs per bag – Allowable with no deductions. Over 1 Kgs – Actual weight over 1 kgs to be Deducted.</p> <p>Damaged Seed –If found visually in large percentage in the Bags. Acceptable upto – 2% but with a deduction in price. Over 2% - Rejected</p> <p>Desi/Paras Eranda – Should not be mixed with castor seed. If found, Lot can be out rightly rejected.</p> <p>(All the materials passing through the 4 mm X 4 mm Mild steel Sieve will be included in physical impurity)</p>
Weighment	<p>Lot size of One to Ten Bags to be weighed individually through electronic weigh scale. More than ten bags to be weighed at weigh bridge. Castor seed arriving in loose form in trailers will be weighed at weighbridge and treated as a single delivery unit. Deduction of 3 Kgs per one MT will be applicable on all weighment done at electronic weighbridge as an Industry wide accepted practice in castor seed.</p>
Auction related details	
Symbol for auction Buy-in	ABCASTJGNO
Symbol for auction Sell-out	ASCASTJGNO
Auction period	7:00 to 7:30 pm on the day of trading

Settlement Procedure of Castor Seed Farmer's Contract - Jagana Delivery

A. Settlement Schedule

Particulars	Day	Monday to Friday - 10:00 am To 4:00 pm	
		Pay-in	Pay-out
Marked-to-Market	T+0	Up to 5.00 p m	At 5.30 pm
Funds – Normal	T+0	Up to 6.30 pm	
	T+1		At 11.00 am
Commodities – Normal	T+0	Up to 6.00 pm	At 7.00 pm
Commodities – Auction	T+1	Up to 11.00 am	At 1.00 pm
Funds – Auction	T+1	Up to 12.00 pm	At 1.00 pm

B. Settlement Procedure

I. Terms and conditions

1. **Delivery logic:** Compulsory delivery. Transactions on intra-day basis will be permitted and all positions outstanding at end of the trading day will result into compulsory delivery.
2. **Mode of communication:** Official Communication with the exchange in regards to commodity delivery should be done only through E mail / Fax or courier.
3. **Commodity movement to warehouse for certification:** The commodity should reach the designated warehouse latest by 1.00 pm on the day of trading.
4. **Taxes, Duties, Cess and Levies:** EX- WAREHOUSE – Jagana. Exclusive of all charges/expenses, taxes and mandi cess. Buyer has to pay APMC Cess as applicable (Presently Cess at Palanpur APMC is 0.6% for purchases of castor seed) which shall be recovered by the exchange on T+ 1 basis at 11:00 am. Delivery lifting charges shall be borne by the buyer.
5. **Deliverable grade of commodity:** The selling members tendering delivery will have to deliver such grades as may be acceptable as per the contract specifications. The buyer has no option to select a particular grade and the delivery offered by the seller and allocation by the Exchange shall be binding on him.
6. **Closing Price:** Closing Price shall be calculated by the Exchange at the close of the trading session for the commodity. All trades will be marked-to-market as per such price, which will be settled by pay-in / pay-out day. All outstanding positions at end of trading session will be settled by delivery and payment at the closing price.
7. **Delivery allocation:** Delivery will be allocated at client level after the pay-in of commodities.
8. **Odd Lot Treatment:** Deliveries must be in multiple of 75 kg.
9. **Warehouse, Insurance and Transportation charges:**
 - Borne by the seller upto commodity pay-out date
 - Borne by the buyer after commodity pay-out date



10. **Extension of delivery period:** As per decision of the Exchange due to a force majeure or otherwise.

II. Procedure of delivery at the Exchange designated warehouse

1. Depositing Castor Seed

The members and their clients willing to deposit Castor Seed in the Exchange accredited warehouse are advised to note the below mentioned procedure / conditions / norms / charges.

1. Farmer has to bring a copy of his 7/12 Form or Pani Patra or such other document / certificate establishing his land record while delivering castor seed at the exchange designated warehouse to be submitted to the selling member. A copy of such document should be attached with each deliverable lot of castor seed.
2. Farmers willing to sell / deposit Castor Seed in the Exchange accredited warehouse will be required to bring castor seed to the exchange warehouse where weighment will be first checked and quality certification shall be done. Farmers can sell their commodity on receipt of Warehouse Receipt and Quality Certificate on the same day at the NSEL terminal available at the warehouse provided by any NSEL Member. Weighment and Unloading of Castor Seed will be done on first cum first serve basis. Stocks received from the farmer at the exchange designated warehouse upto 01:00 PM can be sold on the same day. The farmer after execution of sale shall have to fill up the relevant portion of invoice for the onward delivery to the buyer (format enclosed as Annexure 3).
3. The farmer may bring and deposit goods at the Exchange accredited warehouse along with duly filled CID form (format enclosed as Annexure 4) through the NSEL Member. The members must use separate forms for each delivery at NSEL. The Warehouse will accept the delivery from Monday to Friday between 08.00 am and 01.00 pm. The member should deposit the goods within the specified time, in order to have hassle free delivery of Castor Seed against their transactions.
4. Farmers not desirous of selling the castor seed on the day when he brings the goods to the warehouse can store the goods in the warehouse after having quality checked for sale subsequently. In such case, storage charges shall be applicable and goods have to be compulsorily packaged in jute bags. In case the farmer willing to store has not brought his castor seed in good conditioned jute bags, such bags can be supplied by the warehouse at extra cost as defined under packaging below. Since the farmer brings naked grains, which is to be graded and packaged, the buyer has to pay the labor charges as specified below. The buyer is also required to pay the cost of bags as mentioned in Storage Charges Section below.
5. There is no distinction between old and new crop and hence stocks will be accepted based on the contract specifications as specified by the Exchange.



6. Before deposit, goods have to be compulsorily weighed at the designated weigh bridge / weigh scale and will be monitored and certified by the warehouse supervisor. It is to be ensured that the Castor Seed delivered at the warehouse should comply strictly with the acceptable tolerance limits as prescribed by the Exchange in the contract specification.
7. On receipt of Castor Seed at the warehouse and during unloading the same, random sampling for quality analysis of physical properties, oil content and moisture testing will be done by the quality certifying agent based at the exchange warehouse. If required, the bags will be opened and will be spread on the floor for verification/analysis.
8. Any buyer taking delivery from the Exchange Warehouse should lift the goods on T + 1 on EOD basis failing which applicable storage charges shall be paid by the buyer till he lifts the stock. The buyer who wants to keep the stock at Exchange accredited warehouse for a longer period then the following standard deduction shall be applicable –

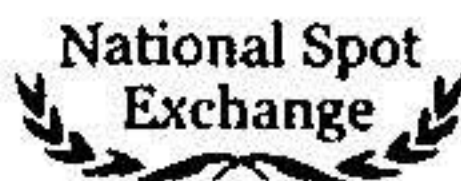
Deposit Month	Standard Deduction (%)
November	0.10
December	0.10
January	0.10
February	0.10
March	0.10
April	0.10
May	0.10
June	0.10
July	0.10
August	0.20
September	0.25
October	0.25

2. **Packaging**

The bags used for delivery should be new or second hand jute bags in good condition without patches and not having been previously used for cement bagging. One bag should contain 75Kg net weight of castor seed with tolerance limit of 5 kgs.

Standard weight of bags used for packing castor seed should be one kg.

Price is paid on net weight basis. If the farmer delivers anywhere between 70 Kg's to 80 Kg's then it will be treated as a good delivery and price will be paid on actual weight received at the warehouse. The farmer will take away the bags, as the payment is done on net weight basis for naked grains without packaging material. Hence, the buyer is required to pay for the packaging material as specified below:



6. **Validity of Quality Certificate**

All deposits during the Castor Seed season period November to October will be issued a quality certificate with validity up to October next year subject to applicable standard deduction.

7. **Delivery out (withdrawal of Commodity from Exchange designated Warehouse):**

Members are required to give at least 1 day prior intimation to the warehouse for necessary arrangements. Based on the intimation received from the withdrawer, delivery schedule will be intimated by the warehouse supervisor. Loading of Castor Seed will be done on first cum first serve basis. No vehicle will be allowed for withdrawing the goods after 4.00 pm in the evening. The warehouse manager's decision will be final in this case.

Documents required at the time of delivery at Warehouse:

The buyer member shall submit the Letter of Authority requesting the Warehouse manager to issue the delivery of Commodity to the bearer of the Authority Letter along with original Copy of the Warehouse Receipt. The Members are advised to instruct their representative to carry some identity Proof (ID proof of his representative such as Voter ID / PAN/ Passport to enable the Exchange) along with the Authority Letter and Original Warehouse Receipt for lifting the stock from the accredited warehouse.

III. **Legal obligation:** The members will provide appropriate tax forms wherever required as per law and as customary and neither of the parties (seller member and buyer member) will unreasonably refuse to do so.

IV. **Applicability of Business Rules:** The general provisions of Business Rules of the Exchange and decisions taken by the Board of Directors and Executive Committee of the Exchange in respect of matters specified above will apply mutatis mutandis. The Exchange may further prescribe additional measures relating to delivery procedures, warehousing, quality certification, margin and risk management from time to time. In case of any interpretational dispute or clarifications, the decision of the Exchange shall be final and binding on the members and others.

**Sale Bill**

From:
Name : _____
Address: _____

Bill no.

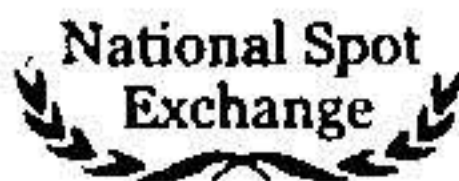
Date: __/__/__

To:
Name : _____
Address: _____

Particulars	Rate	Quantity	Amount
Commodity Name:			
Gross Weight in Kg.			
Less : Deduction on account of quality parameters as per QC report			
Net Weight in Kg.			
Total amount in word _____			

Signature of the Farmer

Note: This sale is made on National Spot Exchange Ltd. by the farmer and no VAT is collected at the time of raising this invoice.



Commodity Inward Document (CID)

Serial No. *Pre-printed*

Date: _____

Warehouse

Warehouse Name _____

Address _____

Depositor Details

Name _____

Address & Contact No.: _____

Contact Person: _____

Commodity Details

Commodity Name _____

No. of
Bags/Units _____

Weight of Commodity _____

MT

(Including/excluding gunny
wt.)

Lot No. Details _____

Spot Rate _____

/ Qntl / KG

Weighbridge Details

Name: _____

License No. _____

Mode of Warehouse Receipt /

Demat _____

Physical
Receipt _____

Beneficiary Name _____

Details of commodity Demat account to be credited with

DP ID _____

DP Name _____

Client ID / Beneficiary ID _____

Client Name _____

Sampling Details

Sampling Agency _____

No. of Samples _____

Name & Signature of Sampler _____

Remarks _____

Signature of Client/
Representative _____

Name of Client/ Representative _____



Signature of Warehouse Manager/Service
Provider

:

Name of Authorized Person

:

Note:

a) The expression "Depositor/Client includes any persons or Bank that lawfully holds, or is the holder in due course of the receipt issued by the Warehouse manager in respect of the goods and derives title thereto by endorsement or transfer by the depositor or his lawful transferee.

b) Acknowledge & accept the terms and conditions of Warehouse.

c) The Warehouse manager undertakes to store and delivery goods only in the packages in which they are originally received. If the packing of the commodity is not suitable for storage purposes then Warehouse manager have every right to reject or refill the bags and client will pay all refilling charges under extra service rendered by the Warehouse.

d) The Warehouse Receipt with the commodity grade will be issued after Quality Certification.

e) In case, the depositor wants Warehouse Receipt in electronic form, the depositor is required to fill Demat accounts related details as above.

Questionnaire for participants

Person's Name	:		
Address	:	Village:	Taluka:
		District:	
		Pin code-	Mo.
Age	:		
Education	:	Illiterate:	
		Below 10th :	
		Above 10th :	
		Specific :	
Land holding	:		
		Irrigated:	
		Un-irrigated:	
Cropping pattern	:	Summer :	
		Kharif :	
		Rabi :	
No. of dependent	:		
Source of income	:	Farming:	
		Business:	
		Service:	
No. of markets available & service provide by them	:		
		Name :	
		Distance:	
		Auction time:	
		Payment condition:	
Why you go specific market as well as trader?			

What are the transportation facilities available?
What are the other facilities available?
What are the sources for known the market price at village level?
Would you know about NSEL and how it work?
What are major problems at NSEL?
Are you happy with NSEL work? Why?