Acknowledgement

We take this opportunity to thank Dr. MCS Bantilan, Research Program Director: Markets Institutions and Policies (ICRISAT) for giving us the opportunity to develop this training material “A Guide to Linking Farmers to Markets: Concept and Selected Case Studies”; and for the overall guidance in bringing out this publication.

We are grateful to Dr. P Parthasarathy Rao, Assistant Research Program Director and Principal Scientist- (Economics), MIP (ICRISAT), for his overall support and thoughtful contribution and for providing his insightful comments in framing most of the critical portions of this training module.

We thank Dr. G Basavaraj, Special Project Scientist: MIP (ICRISAT), for his technical support in helping us in framing the training material.

Finally we would like to thank all the people who have directly or indirectly supported the success of this publication and also acknowledge the support of all the authors whose research publications have been referred to develop this training module.

- Foretell Business Solutions Pvt. Ltd
Prologue

This training module entitled “A Guide to Linking Farmers to Markets - Concepts and Case Studies” has been prepared by Foretell Business Solutions Pvt. Ltd. under the overall guidance from ICRISAT, Research Program on Markets, Institutions and Policy (MIP). The contents of the manual are primarily aimed at training / capacity building of partners working with ICRISAT on value chains in the HOPE (Harnessing Opportunities for Sorghum and Millets) and TL 2 (Tropical legumes) projects in India and also newly appointed scientists/officers at ICRISAT working in the area of markets.

Agricultural marketing in India has been witnessing rapid changes in the last few decades owing to numerous social, economic, technological and policy level changes. A careful look at these changes reveals that the changes are aligned towards linking the primary producers (farmers) with the end users (markets) and hence increasing the efficacy of the whole system. A few important drivers of these changes include the increasing education and awareness level of farmers, increasing focus of institutions and Governments on value addition in agriculture and policy level changes like amendments in the APMC act and permission for FDI in retail, rapid expansion of mobile technology, growth of futures markets and spot exchanges and so on.

In this context there is a need to sensitize the newly appointed change agents about the new marketing approaches that have evolved in the present context and the implications of the same in terms of benefitting the farmers as well as the cost optimization across the supply chains. This training module is an effort towards the same and has organized the information in five chapters as summarized below. The concepts have been described in sufficient detail and relevant examples/illustrations have been incorporated. We have attempted to use examples related ICRISAT mandate crops to the extent possible but have also used examples/case studies from other cereal/legume crops and even horticulture/dairy to illustrate certain concepts.

Chapter 1: The current structure of agricultural markets in India

This chapter delivers the information on

- The current agricultural marketing system existing in India,
- Different type of markets prevailing in India,
- Role of intermediaries while reaching the produce from farm to end user,
- Brief information on the different marketing channels prevailing in India,
- Give an idea on farmers share in consumer rupee in indirect market/ traditional markets,
• Value chain concept

Chapter 2: Need of linking farmers to market

This chapter mainly focuses on the information about the constraints in indirect marketing system and needs and advantages in linking the farmers directly to the markets. It also discusses about the Model APMC Act and its status in India.

Chapter 3: Linkage in action

This chapter deals with the various case studies associated with the linking farmers directly to the market. It encompasses the information on contract farming, producer company models, Government and institutional support in linking the farmers, adding additional income to the farmers through the value chain concept, ware house receipt, market information sources etc.

Chapter 4: Institutional role in building and sustaining linkages

The discussion in earlier chapters makes it clear that market access is a prerequisite for enhancing agriculture-based economic growth and increasing rural income. In this regard the institutions play a vital role in linking farmers directly to the end-user. This chapter deals with the role and need of institutions/government and recommendations on building sustainable market linkages for the benefit of farming community.

Chapter 5: Guidance on good business practices to be followed in linking farmers to end users

The final chapter delivers the guiding principles for creating and managing sustainable market linkages and areas of farmers’ skills that need to be improved to connect them directly to the markets. It also discusses important levers for creating and sustaining strong linkages.
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Chapter I: The Current Structure of Agricultural Markets in India

This introductory chapter deals with the current Indian agricultural market structure, types of agricultural markets prevailing in India, roles of agencies/intermediaries involved in marketing of the produce and share of farmers in consumer rupee along with a description of agricultural supply chains and value chains. The idea is to develop a basic understanding of the prevailing agricultural marketing system existing in India.

Types of Agricultural Markets

Agricultural marketing is a form of marketing that encompasses all the goods and services related to the field of agriculture. All these products directly or indirectly support the effort to produce and deliver agricultural products from farm to the consumer.

Agricultural markets have been classified based on various dimensions of the markets.

Fig 1.1: Classification of agricultural markets

I. Classification of markets on the basis of location or operation

Village markets: A village market is located in the small villages/rural area where the transaction takes place between the buyers and sellers of a village.
Primary markets: Primary markets are located in the towns which are near to the centers of agricultural commodities production. In such markets produce is brought for the sale by the farmers and traders. In primary markets most of the raw materials are traded without processing.

Secondary wholesale markets: These markets are located at the district or taluk (sub-district) headquarters, away from the centers of production where the transaction takes place between the village traders and wholesalers.

Terminal markets: In these markets the produce is finally disposed off either to the consumer /processors / for shipment to the foreign countries. Such markets are usually located in the metropolitan cities. Eg: Mumbai, Chennai etc.

II. Classification of markets based on the time span

Short period markets: These markets are held for a day or for few hours. In such markets perishable produces like fish, vegetables, milk etc. are traded.

Long period markets: Long period markets are held for a longer period where the less perishable commodities like food grains, oilseeds, etc. are traded.

Secular markets: These are the permanent markets; the commodities traded in such markets are durable in nature like machineries, manufactured goods etc.
III. Classification of markets on basis of volume of transactions

**Wholesale markets:** In wholesale markets the commodities are traded in lots or in a bulk. Such markets are generally located either in the towns or in the cities. In these markets the transaction takes place among the producers, wholesalers, retailers, consumers (Figure 1.3).

**Fig 1.3: View on wholesale markets in India**

**Retail markets:** In these markets the commodities are bought from the wholesale markets and sold to the consumers based on their requirements. Such markets are located near to the consumers where the transaction takes place between the retailers and consumers. Further, the retail market may be organized (e.g. Reliance fresh, Safal etc.) or may be un-organized (e.g. Kirana/mom and pop shops). Organized retailing refers to retailing by licensed retailers (registered for sales tax, income tax, etc.) with proper technical and accounting standardization.

**Fig 1.4(a): Organized Retail Markets in India**
IV. Classification on the basis of nature of transaction

**Spot / Cash market**: The spot market is a ready market where the sellers on the spot physically sell their produce to the buyers. In this market the goods are delivered immediately. The settlement of cash can be done within the maximum of 11 days.

**Forward market**: Forward market is a market in which the buyers and sellers make agreement for sales and delivery of goods in future. In this market the agreement is made between buyers and sellers to buy or sell a specified product at a certain time in the future at a price agreed upon.

**Futures market**: A Futures market is a forward market but is standardized and transacted through a futures exchange.

Eg: MCX, NCDEX.

V. Classification of markets based on number of commodities in which transaction takes place

**General markets**: In general markets large number of commodities or all types of commodities such as food grains, oil seeds, fiber crops, horticultural crop, etc. is traded.

**Specialized markets**: In these markets the transaction takes place in one or two commodities belonging to a particular group e.g. food grain market, vegetable market, cotton market etc.
VI. Classification of markets based on the degree of competition

Based on the competition, markets are classified into perfect and imperfect markets.

**Perfect market:** A perfect market is one where all the buyers and sellers are aware about the supply, demand and prices of the commodity at which the transaction takes place. The conditions of the perfect markets are:

- There must be a large number of sellers and buyers.
- There must be a uniform price for any one standardized commodity at a particular time at any place.
- There should not be any restriction on the movement of any commodity.

**Imperfect markets:** In these markets some of the buyers or sellers or both are not aware about the prices at which the transactions take place.

VII. Classification of markets based on the functions / extent of public intervention

**Regulated markets:** In regulated markets, business is done as per the rules and regulations framed by the statutory market organizations. In these markets, market charges are standardized and fixed and practices are regulated by Agricultural Produce Market Committees (APMCs). All market functionaries operating in the regulated markets must have a license from market committee. These APMCs act as backbone of the primary trade in agricultural commodities. They provide a platform for transparent price discovery for the farmers. In many cases, they also have the infrastructure for the below mentioned functions;

- Maintenance and improvement of market,
- Construction and repair of buildings, (Auction platform, Grading platform)
- Provision and maintenance of standard weights and measures,
- Godown,
- Rural godown,
- Transaction shed,
- Drying yard,
- Electric weighing balance,
- Cold storage,
- Farmers rest shed,
- Sanitary facilities,
- Drinking water facilities,
- Mechanical grading,
- Metallic storage bins,
- Market complex,
- Insurance service,
- Standardization and quality certification services,
- Communication, Road and bank facilities.

Table 1.1: Number of APMCs in major states

<table>
<thead>
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<th>No. of regulated markets (market yards and sub-yards)</th>
<th>Density per 10,000 km² of geographical area</th>
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<tr>
<td>Andhra Pradesh</td>
<td>889</td>
<td>32</td>
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<tr>
<td>Maharashtra</td>
<td>871</td>
<td>28</td>
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<tr>
<td>West Bengal</td>
<td>684</td>
<td>77</td>
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<tr>
<td>Uttar Pradesh</td>
<td>584</td>
<td>24</td>
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<tr>
<td>Karnataka</td>
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<tr>
<td>Madhya Pradesh</td>
<td>488</td>
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<td>Punjab</td>
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<tr>
<td>Rajasthan</td>
<td>416</td>
<td>12</td>
</tr>
<tr>
<td>Gujarat</td>
<td>405</td>
<td>21</td>
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<tr>
<td>Odisha</td>
<td>314</td>
<td>20</td>
</tr>
<tr>
<td>Others</td>
<td>1977</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>7557</strong></td>
<td><strong>23</strong></td>
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Source: Directorate of Marketing and Inspection

**Unregulated markets**: In unregulated markets, business is conducted without any set of rules and regulations. Here traders alone set the rules for conducting the business and for running the market. Such markets usually suffer from various defects while functioning.

**VIII. Classification on the basis of stage of marketing**

**Producing market**: These markets are situated near the producing areas where, the commodities are assembled for further distribution to other markets.

Eg: Latur market for sorghum and pigeon pea.

**Consuming market**: Here the produce is collected for the final disposal to the consumers and such markets are generally located in the populated areas where the production is inadequate. For example, Mumbai is a large consuming market while its suburbs like Thane, Dombivalli etc. are smaller markets that either depend on the supplies from Mumbai or directly import their requirements from the primary markets.

**Intermediaries involved in indirect agricultural marketing system**

Indirect agricultural market involves large number of intermediaries/middlemen between the producers and ultimate consumers (Figure 1.5). These middlemen more or less participate in
collecting and distributing the produce. The number of intermediaries varies from one to many based on the type of produce and marketing channel.

**Fig 1.5: Classification of market intermediaries**

**Producers:** Some of the producers / farmers sell their produce in the market and some of the producers (mainly the larger ones) collect the produce from small farmers, transport it to market and make a profit by selling it. This activity helps the farmers in increasing their income and in accessing market information. Thus such farmers technically act as middlemen between the small farmers and markets.

**Middlemen:** Various middlemen are involved in the various marketing functions to facilitate the trade and take some part of the price margin. The middlemen perform their functions at different stages of marketing process.

**Types of middlemen**

**Merchant middlemen:** Merchant middlemen take title to the goods they handle and they buy and sell the produce on their own and gain or lose the profit. Normally such middlemen are not the risk takers as they are aware about the buying and selling prices of the produce.

Merchant middlemen are classified as wholesalers and retailers and itinerant traders and village merchants.

**Wholesalers:** The wholesalers buy the produce either from the farmers or from other wholesalers/processors and sell to other wholesalers or retailers or processors. Normally these
wholesalers do not sell the maximum quantity of the produce to ultimate consumers. Thus the main position of the wholesaler is an intermediary between the processor and retailer.

Functions of wholesalers are;

- Collecting the goods from various localities and areas
- Sorting out the goods as per the quality
- Regulate the flow of goods by trading with buyers and sellers in different markets
- Usually wholesalers own their godowns to store the produce
- Wholesalers equalize the flow of produce by storing them in the peak arrival season and releasing the produce during the off season
- Some of the wholesalers (un processed commodities) also extend credit to the farmers to meet their needs
- They assess the demand and needs of the buyers and processors from time to time according to which they plan the movement of the produce.

**Retailers**: Retailers buy goods from wholesalers and sell them to the consumers in small quantities. They are producer’s 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 establishment 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. They act as financiers for poor farmers.

**Agent Middlemen**: Agent middlemen act as representatives of their clients. They sell services to their principals and not the goods or commodities. They derive their income in the form of commission or brokerage.

**Types of agent middlemen**

- Commission agents
- Brokers
- Auctioneers

**Commission agents**: A commission agent is a person who acts as a representative of either a seller or buyer. He 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.
**Brokers:** They do not have physical control of the product unlike the commission agents. The main function of brokers is to bring together buyers and sellers on the same platform for negotiation. Their charge is called as brokerage.

**Auctioneers:** Auctioneers are not the primary producers and the handled produce is not their own. Auctioneers have places for physical display, space where participants meet, announce the date of auction and facilitate in price formation. During the bidding process the main role of auctioneer is to announce the price offered by various participants.

**Speculative Middlemen:** Speculative middlemen are those who take title to the product with a view of making a profit on it. 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 make profit from short-run as well as long-run price fluctuations.

**Processors:** Processors carry on their business either on their own or on custom basis. They 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 to create a demand for their processed products.

**Marketing Channels/Supply Chains**

The food and beverage supply chain can be defined as a linear relationship involving the primary producers or farmers, the manufacturers or processors who fabricate food for table and the retailers who gather a range of such products and sell them to consumer (Source: Food Supply Chain Management by Jane F. Eastham, Liz Sharples, Stephen D. Ball). Simply put, a supply chain is a marketing channel involving numerous participants or channel partners. A market channel is also defined as a path traced in the direct or indirect transfer of produce from producer to ultimate consumer / industrial user. To have a brief idea on the role / presence of middlemen in marketing, we have put forth some of the marketing channels which are mostly used by the primary producer to reach their produce to final consumer or for industrial use in Figures 1.6 and 1.7.
Fig 1.6: Marketing channel for food grains

- **Producer**
  - Private
  - Institutional/Govt

- **Commission agent**
- **Wholesaler (pulses)**
- **Village trader**

- **Procuring agency**

- **Processor**
  - Wholesaler
  - Retailer

- **Village merchant**
  - Local sale

- **Consumer**
  - Village sale
A marketing channel depends on the following factors:

- Perishability of the produce (Shorter channels with less intermediaries seen in case of highly perishable products)
- Bulk and weight of the produce
- Storage facilities
- Distance between the producer and consumers

Agricultural commodities in general can be classified into two groups on the basis of degree of value addition which also decides the point of purchase for the retailers.
1. Agri. commodities requiring processing

These include grains; oils and pulses as well as all processed and packaged foods (including packaged milk). They form the bulk of the merchandise of the retailers (Figure 1.8). Here the role of the processor is very important in terms of changing the form of the produce by processing to make it amenable for retailing. Processors/Millers are integral part of supply chain for this category, thus making the channel longer.

Fig 1.8: Typical supply chain of staples

![Supply chain diagram](image)

It is to be noted that commission agents who were major players in the supply chain have a limited role after the amendment in Model APMC Act (in the states that have adopted the same), which mentions, “No commission agent shall act on behalf of agriculturist seller and no deduction to be made towards commission”.

2. Agri. commodities requiring minimum or no processing

These include fresh fruits and vegetables, eggs, etc., which can be retailed without any significant value addition. Here the minimum value addition (such as packaging) can be done by the retailer or by the supplier.
Fruits and vegetables with their ability to be retailed fresh provide ample opportunity for the retailer to come near to the farmers and associate with them.

**Market Efficiency**

A market is said to be efficient market, if it uses all the information available or the one that accurately incorporates all known information in determining prices. Improved efficiency is a common goal of farmers, consumers and society. Market efficiency is measured as a ratio of marketing output to input. Marketing input includes the resources (labour, seeds, fertilizers etc.) necessary to perform the marketing functions. Marketing output includes time, form, place and possession utilities that provide satisfaction to consumers. Efficient marketing is the maximization of the input-output ratio.

The objectives of an efficient marketing system are:

- To enable the primary producers to get the best possible returns.
- To reduce the price difference between the primary producer (farmer) and ultimate consumer (retail customer).
- To make available all products of farm origin to consumers at reasonable price without impairing on the quality of the produce.

**Improving marketing efficiency**

- **Technology**: Utilization of the best technical know-how available and the forces of competition should be allowed to work to ensure improvement.

- **Product innovation**: Value added products should be introduced, which entails developing and marketing products that keeps up with the changing needs of consumers and industry.

- **Market coordination**: It implies clear and distinct price signals transmitted by the marketing system particularly to producers and to buyers.
Producers Share in Consumer Rupee

Producer price is the net price received by the primary producers/farmers during the sale of their produce. Producer share in consumer rupee is the price received by the farmer expressed as a percentage of the retail price/price paid by the consumer. It should be noted that as a concept, producer share in consumer rupee does not indicate the amount of profit or loss incurred by a farmer, it only indicates whether, a significant portion of the amount paid by the consumer has reached the farmer or not, thus indicating the efficiency of the chain and justifying the farmers efforts in the chain. In order to gauze the actual benefit/loss to the farmer, we need to use the data on cost of cultivation and returns from main product as well as various byproducts.

The general formula for calculating the producer share in consumer rupee is

\[ P_s = \left( \frac{P_f}{P_r} \right) \times 100 \]

Where, \( P_s \) – Producer’s share in consumer rupee, \( P_f \) – Producer’s price and \( P_r \) – Retail price

However, in case of commodities that are processed, the calculation of producer share in consumer rupee has to factor in the processing costs as well as recovery of various products and byproducts and their market prices. This is illustrated by two examples in each category. It is to be noted that the producers share in consumer rupee as displayed in the below examples is for fair average quality (FAQ) such that producer price and consumer price are comparable.

**Case 1: Unprocessed products**

To have a rough idea on producers share in consumer rupee for un-processed products, we considered the wholesale price and the retail price of produce on the same day in major growing belts of Karnataka and the results are presented in the below tables (Table 1.2, Table 1.3 and Table 1.4).
Table 1.2: Producers share in consumer rupee

<table>
<thead>
<tr>
<th>Produce</th>
<th>Wholesale price (Rs/100kg)</th>
<th>Retail price (Rs/100kg)</th>
<th>Producer share in consumer rupee (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearl millet</td>
<td>1300</td>
<td>2000</td>
<td>65</td>
</tr>
<tr>
<td>Sorghum</td>
<td>1500</td>
<td>2400</td>
<td>62.5</td>
</tr>
<tr>
<td>Maize</td>
<td>1400</td>
<td>2000</td>
<td>70</td>
</tr>
<tr>
<td>Chick pea</td>
<td>3250</td>
<td>4650</td>
<td>70</td>
</tr>
<tr>
<td>Banana</td>
<td>2500</td>
<td>3600</td>
<td>69</td>
</tr>
<tr>
<td>Grapes</td>
<td>4500</td>
<td>8800</td>
<td>51</td>
</tr>
<tr>
<td>Tomato</td>
<td>500</td>
<td>1300</td>
<td>38</td>
</tr>
<tr>
<td>Onion</td>
<td>1000</td>
<td>2600</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: Wholesale prices from agmarknet, retail prices from www.dacnet.in

Note: To calculate the producer share in consumer rupee we have considered the wholesale and retail price of the produce prevailing in Karnataka; if we include the marketing cost incurred by the farmers, the share will be lesser than the calculated one. Also, this share depends upon the type of channel that the farmer used to sell his produce.

Case 2: Processed products

a) *Pigeon pea*

Price received by farmer: Rs.3600 per 100 Kg

Table 1.3: Retail Prices and proportions of various outputs for pigeon pea

<table>
<thead>
<tr>
<th>Output</th>
<th>Retail price per Kg</th>
<th>Recovery per 100 Kg Pigeon pea</th>
<th>Total retail value per 100 Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1 dall</td>
<td>80</td>
<td>40</td>
<td>3200</td>
</tr>
<tr>
<td>Grade 2 dall</td>
<td>72</td>
<td>30</td>
<td>2160</td>
</tr>
<tr>
<td>Husk, bits and powder</td>
<td>15</td>
<td>27</td>
<td>405</td>
</tr>
<tr>
<td>Wastage</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>5765</td>
<td></td>
</tr>
</tbody>
</table>

Producer share in consumer rupee: 3600/5765*100=62.4%

b) *Rice*

Price received by farmer: Rs.1500 per 100 Kg

Table 1.4: Retail Prices and proportions of various outputs for rice

<table>
<thead>
<tr>
<th>Output</th>
<th>Retail price per Kg</th>
<th>Recovery per 100 Kg Pigeon pea</th>
<th>Total retail value per 100 Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head Rice</td>
<td>38</td>
<td>55</td>
<td>2090</td>
</tr>
<tr>
<td>Broken Rice</td>
<td>18</td>
<td>10</td>
<td>180</td>
</tr>
<tr>
<td>Bran</td>
<td>14</td>
<td>7</td>
<td>98</td>
</tr>
<tr>
<td>Husk</td>
<td>2</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Wastage</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>2418</td>
<td></td>
</tr>
</tbody>
</table>

Producer share in consumer rupee: 1500/2418*100=62.0%
The above examples are indicative in nature and have been presented with a view to demonstrate on how to derive the producer share in consumer rupee. A detailed study with price data for a long period of time is necessary to establish the average values for various crops and markets.

Some of the studies (NIAM, Manage, NCAP, 2008) indicate that the share of producers varies from 56 to 83 per cent in food grains and 79 to 95 per cent in pulses, 65 to 96 per cent in oilseeds and 33 to 75 per cent in case of fruit and vegetables depending up on the marketing channel. In general it is seen that the producer share is lesser in case of horticultural products due to perishability, which increases the marketing risk for intermediaries.

The marketing channel or the supply chain is an important aspect affecting prices paid by consumers and shares of them received by the producer. The shorter the channel, lesser the market costs and cheaper is the commodity to the consumer. When the channel is long with more intermediaries, consumer prices are more and producer’s share is less. The channel which provides commodities at cheaper price to consumer and also ensures greater share to producer is considered as the most efficient channel, for farmers as they are able to gain a better consumer share. Thus, producer share in consumer rupee is a good measure of the efficiency of markets, provided that all aspects like processing, value addition, returns from by products, risk factors, equivalence in the quality of produce sold and purchased by consumer etc. are considered while analyzing the same for various markets. It should also be considered that producer share in consumer rupee is not the only measure of market efficiency; there are other measures such as operational efficiency of the market which also need to be considered while analyzing efficiency of markets. The other important measures also include reliability of the chain for continuous supply of quantity and quality, consumer satisfaction with the product etc.

In this context it is important that the Government policies and institutional interventions support the agri. value chain in an integrated way so that overall value chain efficiencies are improved. This will increase the size of the available pie and will benefit all actors in the chain. Policies that increase total value chain profits benefit all actors even if particular shares for some are small. The next step is to look at equitable distribution where the concept of producer share comes in. Thus, this concept has an important implication while designing policies related to agricultural marketing or planning of developmental projects as the main aim of all developmental interventions is to increase farm realizations.
Value chain in agriculture

A value chain in agriculture identifies the set of actors and activities that bring a basic agricultural product from production in the field to final consumption, where at each stage value is added to the product. A value chain is a connected string of companies, groups and other players working together to satisfy market demand for a particular product or group of products. A value chain can be a vertical linking or a network between various independent business organizations and can involve processing, packaging, storage, transport and distribution. The terms value chain and supply chain are often used interchangeably.

Traditional marketing system

In the traditional selling system farmers produce commodities that are “pushed” into the marketplace. Farmers are isolated from the end-consumers and have less control over funds received for their goods. The traditional supply chain is simply a set of linkages between actors where there are no binding or sought-after formal or informal relationships, except when the goods, services and financial agreements are actually transacted (Figure 1.10).

Fig 1.10: Traditional marketing system
Value chain marketing system

In a value chain marketing system, farmers are linked to consumers’ needs, working closely with suppliers and processors to produce the specific goods demanded by the consumers. Similarly, through flows of information and products, consumers are linked to the needs of farmers (Figure 1.11). Under this approach, and through continuous innovation, the returns to farmers can be increased and their livelihood can be improved. Value chains are characterized by activities of value addition and industrial transformation processes. Value chain is a specific type of supply chain where the actors actively seek to support each other so they can increase their efficiency and competitiveness. They invest time, effort and money, and build relationships with other actors to reach a common goal of satisfying consumer needs so that they can increase their common profits.

Fig 1.11: A value chain marketing system
The main features of value chains are:

- Coordination of all links in the chain,
- Added value at each stage and
- Market-led approach, responding to local, national and international consumer demand.

Table 1.5: Difference between the traditional marketing supply chain system and value chain marketing system

<table>
<thead>
<tr>
<th>Character</th>
<th>Supply chain</th>
<th>Value chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication / information sharing</td>
<td>Little /none</td>
<td>Extensive communication</td>
</tr>
<tr>
<td>Value focus</td>
<td>Cost/price</td>
<td>Value/quality</td>
</tr>
<tr>
<td>Product</td>
<td>Commodity</td>
<td>Differentiated product</td>
</tr>
<tr>
<td>Relationship in the chain</td>
<td>Supply pull</td>
<td>Demand pull</td>
</tr>
<tr>
<td>Philosophy</td>
<td>Self-optimization</td>
<td>Chain optimization</td>
</tr>
</tbody>
</table>

The actors/players involved in value chain include:

- Farmers, farmers’ organizations and their associations
- Processors at different level and their associations
- Traders, exporters and their associations
- Transporters and middlemen
- Private advisory, business support and accounting service providers
- Chamber of Commerce, investment and export promotion agencies and other bodies promoting value chain development
- Regulatory agencies such as bureaus of standards, food safety agencies and metrology institutes
- Private certification and quality control bodies
- Research institutions and universities
- Training and education institutions, etc.

The important skills required in value chain development are:

- Primary agricultural production
- Processing technology
- Enterprise and business development
- Contractual arrangements and business linkages
- Marketing and trade
Pro-Poor Value Chain Development

Small scale farmers are not able to occupy an equitable position in the value chains due to their backward economic and social position vis a vis large and rich farmers. The challenges which are being faced by the small scale farmers to participate in value chain in India are;

- Low scale of production never allows small farmers to fetch market price
- Distress sales due to pressure of immediate cash needs
- Lack of skills to respond to market led standards
- Lack of knowledge on secondary processing and value addition
- Lack of market awareness and interaction limited to village level traders
- Lack of coping mechanism for price fluctuation
- Lack of infrastructure for primary processing like drying, cleaning, packaging, weighing scale etc.
- Poor storage and transport facilities
- Lack of appropriate technology for value addition

Hence an integrated poor centric approach is required to address the key challenges and to make value chain interventions work for the farmers. Pro-poor value chain initiatives are the measures to overcome the entry barriers for poor agricultural producers and providers of inputs and services. Often these chains make use of lead firms to build up supplier networks among small and marginalized farmers, helping them gain access to knowledge and production technologies.

Measures to be taken for successful participation of farmers including small and marginal farmers in value chain initiatives

1. Collective marketing and graduate to collective enterprise

The first step is to help the farmers group to start up collective marketing. A range of activities like how to procure or collect from members, how to sort, grade and clean, how to package and how to transport produce to higher markets makes the farmers to understand basic business functions. In addition, it helps them to learn the art of accessing market information and negotiation with potential traders. In this process, groups acquire skills for collective management. Graduation to cluster development brings a number of villages under the ambit of collective marketing and undertaking a range of activities. This also ensures people to move together to pool capital, share risks and benefits.
2. Graduation from village level collectives to cluster level organization

Creation of appropriate institution at the village and cluster level is critical to the success of any value chain development intervention. The starting point should always be to initiate formation of collectives at the village level. Collectives in the initial stage should be involved in conducting collective marketing activities. Thereafter, these collectives should form an organization at a cluster level. The cluster level organization can start as a cooperative and should graduate to Farmer Producer Company (details discussed in further chapters) once it finds itself stable in terms of fund management, leadership development and creation of appropriate systems.

3. Value chain intervention should aim at supporting better return from multiple products

Most of the smallholders have very limited individual surplus of produce. Hence their income can be augmented by engaging in multiple value-added products. Therefore it is important from a value chain development perspective to have a solution which recognizes and works on a number of key produce/products. For example, many products from sorghum like vermicelli, flakes, idly rava, pasta, multigrain atta, etc. have been suggested by Dayakar Rao and co-workers, DSR, Hyderabad (page no 63). However, it is important that the volume of products is optimal to support investment on plant and machineries etc. Hence, developing a cluster level organization is important before diversifying to multiple products.

4. Setting up of basic marketing infrastructure in villages and clusters

Smallholders need basic marketing infrastructure like weighing machine, drying platform storage space etc. at the village or cluster level. This facilitates engagement of farmers in primary processing. This invariably increases community’s capacity to meet basic requirements of the market.

5. Empower through marketing exposure and training

Concerted efforts to increase collectives’ knowledge about buyers, their specific needs, and importance of timely delivery of right produce, market information etc. should be imparted through innovative training materials and regular exposures and interactions with various market players like buyers, millers, cold storage, processing plants, machine and equipment manufacturers and supplier etc.

6. Partnership with private sector

Market access by small scale farmers has been the most critical challenge in developing value chains. However, it has been experienced that if farmers learn primary value addition activities like cleaning, sorting and packaging, then they can find themselves in better position to link with markets. Moreover, efforts beyond transactional association with private sector including
established entrepreneurs need to be explored. Collectives can leverage the technical and management expertise of private players. Partnerships with private sector can further be strengthened if innovations in areas like developing new products, creating efficient sourcing systems and introduction of ICT based solutions are introduced.

**Successful Case Studies on Value Chain**

This section deals with few case studies on how farmers got benefitted by participating in value chains. These case studies also illustrate how farmers can be directly linked to markets using a value chain approach, more examples of other approaches are discussed further in Chapter 3.

1. **Use of Grains for Alcohol Production**

Alcohol is produced by fermentation of any material that contains sugars either in the free form as in case of molasses or in the form of starch as in case of grains. Grain starch is hydrolyzed by a combination of enzymes. Grain alcohol is much cleaner because of low sulphates and aldehydes. Alcohol production from grain involves milling of grain, hydrolysis of starch to release fermentable sugars, followed by inoculation with yeast.

The main industrial applications of sorghum include animal feed ingredient, alcohol production, and production of starch/starch derivatives. Sorghum grain fetches lower price when used for animal feed and the quantity used for starch production is very small. Therefore, use of sorghum for production of alcohol will help the poor farmers as they can get a better price for their produce.

In India nearly 2–3 million tonnes of sorghum is wasted due to grain blackening following unseasonal rains. This grain is not suitable for human or animal consumption. Hence it is sold at a low price and thus gives low returns to the farmer. But instead, if these grains are sold for alcohol production, many marginal and small farmers could be benefitted. Grain based alcohol is gaining popularity and is used in many liquor blends for their better properties, hence creating a steady demand for grains like sorghum, pearl millet and barley.

**Contribution of Seagram in grain based alcohol production**

Seagram has been producing international quality alcoholic beverages for the Indian Market since 1994. All their products are made from grain alcohol. Seagram has established its R&D in Pune, mainly focusing for the improvement in the yield of alcohol production using indigenous raw materials such as grains, enzymes and yeast.

**Backward linkages with farmers**

Seagram involved in educating the farmers to go good seeds and better agronomic practices for sorghum cultivation along with the seed companies and agricultural research organizations. As
well as it is buying the grains directly from the farmers or farmers cooperatives so that farmers can get maximum prices for their produce.

Use of sorghum for alcohol fermentation can use up to 10–15% of the mould damaged grain which will help farmers to realize a good price for their produce. Liquor companies, research institutions, and Government can coordinate with farmers to strategically develop value-added utilization of sorghum. Pearl millet is another source of alcohol production.

2. Dayakar Rao et al. 2010 have studied the impact of innovations in value chain on sorghum farmers. The technological backstopping of sorghum cultivation with end-product specific improved cultivars realized 51 per cent average rise in incremental net income for the participating farmers.

Table 1.6: Economics of different value added sorghum products

<table>
<thead>
<tr>
<th>Product</th>
<th>Output cost (Rs/kg)</th>
<th>Price of alternative/conventional products in market (Rs/kg)</th>
<th>Proposed price received by the farmers (Rs/kg)</th>
<th>Profit margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flakes</td>
<td>30.96</td>
<td>40</td>
<td>40</td>
<td>29.2</td>
</tr>
<tr>
<td>Vermicelli</td>
<td>50.15</td>
<td>48.8</td>
<td>50</td>
<td>-0.3</td>
</tr>
<tr>
<td>Multigrain atta</td>
<td>27.52</td>
<td>36-42</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>Fine rava (idli)</td>
<td>36.86</td>
<td>20-24</td>
<td>45</td>
<td>10.5</td>
</tr>
<tr>
<td>Pasta</td>
<td>28.13</td>
<td>180</td>
<td>90</td>
<td>220</td>
</tr>
</tbody>
</table>

Source: Dayakar Rao et al. (2010)

Table 1.6 indicates that farmers involved in preparing the value added products from sorghum can gain extra profits, which is significantly high in pasta i.e., 220 per cent followed by flakes. Accordingly, semi-processed sorghum products have been fine-tuned and standardized and are labeled and branded as health foods based on findings of the above studies.

3. Contribution of SABMiller in barley in Rajasthan

SABMiller is working to develop and improve local supply chains for barley, a key ingredient for the company’s products, in Rajasthan, India. Through this initiative, the company is helping to promote sustainable social and economic development in the rural community.

Goals of SABMiller

- To promote sustainable livelihoods for smallholder barley farmers.
- To improve the locally grown barley.
- To establish centers throughout barley-growing regions to provide farmers with certified seeds, agricultural skills training and technical assistance.
Business Model

India’s beer consumption rate is growing at a robust 15 to 17 percent each year. This growth has driven demand for malting barley, a key ingredient in beer to new heights. However, the majority of the 1.5 million tonnes of barley produced each year in India is feed grade, which is ideal for cattle but not for lager. Because this lower-quality barley does not command a premium price in agricultural markets, farmers do not consider it a priority crop. Therefore, many farmers do not invest in government certified seeds and other inputs and training that would help yield a higher quality crop. As a result, beer manufacturers have to compromise with the barley that is available, although lower-quality barley drives up the processing costs for brewers.

In 2005, SABMiller India realized that it needed access to better quality barley to create better quality malt and to reduce production costs. The beer manufacturer launched its *Saanjhi Unnati* (Progress through Partnership) program to help farmers overcome the constraints that were preventing many from growing barley as a commercial crop. The program provides rural smallholder farmers access to the seeds, agronomical advice, and the training they need to enhance the quality of their crops.

Farmers participating in the program received hands-on customized support from agricultural specialists who provided farmers with tips and information on barley cultivation, such as proper irrigation, fertilizer usage, and harvesting (Figure 1.12). They also had access to conveniently located “Progress through Partnership” centers where government-certified seeds, fertilizers, and pesticides can be purchased, and harvested crops can be sold. Through the “Progress through Partnership” program, farmers benefit from an assured market for their barley, transparent transactions, and fair pricing structures.

Fig 1.12: A view on farmers getting information
Working of SABMiller

SABMiller India actively manages the day-to-day operations of the “Progress through Partnership” program. The company has a dedicated team that manages and directs the 15 “Progress through Partnership” centers where farmers can buy seed stock and other inputs such as fertilizers or pesticides or consult with agricultural specialists. Each center employs two technical advisors who give recommendations and instructions related to seed treatment, time of irrigation, method of fertilizer application, weeding practices, harvest timing, and storage practices. In addition, these centers function as buying stations, where barley is weighed and graded and farmers are paid on the spot for their crops.

Impact of SABMiller

Since this program was introduced, farmer’s barley yields have grown by 20 to 25 percent from 2,272 kilos per hectare in 2005-2006 to 2,784 kilos per hectare in 2008-2009. As yields increased, the company was able to meet its target to more than double the amount of barley procured through “Progress through Partnership” centers from 3,298 tonnes in 2006 to 14,258 tonnes in 2009, which represents about 30 percent of the company’s total barley requirements. By investing in local farmers, the company has secured the supply of barley it needs to meet its long-term growth targets. Having higher-quality inputs has enabled the business to reduce the costs of the brewing process, improve the quality of the final product, and extend the shelf life of its products. Thus the farmers are also benefitted by the initiatives of the SABMiller in Rajasthan, since they can produce a better quality of barley, and can fetch a better price. Promotion of value added products for the agricultural produce, through linking farmers to input dealers, credit agencies and end users and providing financial support and an enabling environment for the processing sector, has led to a win–win situation, benefiting the producer, processor and the consumer.
Chapter II: Need of Linking Farmers to Market

Changes are being witnessed in the agricultural marketing system. Traditional marketing channels are being replaced by co-ordinate links between farmers, processors, retailers and consumers. In this chapter we will discuss the needs and benefits related with linking farmers directly with the market and the constraints in linking the produce from farmers to the final consumers through intermediaries/traditional marketing system. Direct marketing systems lead to better alignment of agricultural marketing chain and also increase the overall producer’s realization.

Constraints associated with the indirect / traditional agricultural markets

The movement of the produce from the farm to the ultimate retail outlets / consumers through the traditional supply chain faces a number of constraints and farmers are at the mercy of the middlemen and commission agents.

- In these markets intermediaries exist at various levels between the farmers and consumers and exploit farmers through malpractices in weighing, handling and payments.
- Large numbers of small farmers are unable to effectively bargain for better price in the wholesale market.
- The farmers get low price for their produce whereas the consumers pay higher price for the produce.
- Inefficiencies in the wholesale markets result in a long chain of intermediaries, multiple handling, and loss of quality and increase in the gap between the producer and consumer prices.

Needs for linking farmers directly to market

- The main purpose is to protect the farmers from exploitation of intermediaries and traders.
- To ensure better prices for the produce.
- To facilitate the direct contact between the farmers and consumers.
- To make the timely payment for the produce sold.
- To increase the farmers share in consumer rupee.

Benefits related with the direct marketing

- Makes the marketing channel shorter.
- It minimizes the marketing cost, transportation cost and maximizes farmer’s share.
- Helps in eliminating the intermediaries and encourages the distributional efficiency.
• It encourages the direct interaction between the producers and end consumers.
• Direct linking may also reduce the post-harvest losses of the produce.
• It encourages the farmers for retail sale of their produce, thus increasing their involvement in marketing process and helps in discovering the demand of markets for future market oriented planning.
• A few models are giving information on the production, marketing of the product to the farmers so that farmers are aware about the demand of their produce.
• It satisfies the consumer through better quality of produce at reasonable price.

Monetary benefits to the farmers in direct marketing system

• Farmers get higher share in consumer rupee compared to traditional marketing system.
• Some of the initiatives are involved in supplying the required inputs to the farmers at reasonable prices.
• Marketing cost incurred by the farmers in traditional marketing structure can be minimized by linking farmers directly to the market.
• Lower transaction cost.
• In contract farming arrangement, the price risk is shared with the firm which is entering into the contract with the farmers.

Non monetary benefits

• In direct marketing system, farmers directly come in contact with the consumers and come to know the consumers requirement.
• Some of the direct marketing initiatives are giving technical know-how to the farmers about the crop cultivations; package of practices etc. Through these, farmers become aware of the modern methods of cultivation, which ensures better yield.
• The most attractive aspect of direct marketing to some farmers is the opportunity to own their own business, be their own boss, and follow their own practices. This flexibility allows farmers to determine their own product mix and to balance their output according to consumer demand and individual talents for selling and market management.
• Reduces the post-harvest losses of the produce
• In this system farmers use crates, weighing machine, storage facility etc. for their produce which reduces post harvest losses and costs.
• Overall farmers increase their efficiency by access to better technologies.
Model APMC Act 2003- The State Agricultural Produce Marketing (Development and Regulation Act, 2003)

Agricultural marketing is witnessing major changes world over, owing to liberalization of trade in agricultural commodities. To benefit farming community for the new global market access opportunities, the internal agricultural marketing system in the country needs to be integrated and strengthened. In this context, Government of India in the Ministry of Agriculture appointed an Expert Committee on 19th December 2000 followed by an Inter-Ministerial Task Force to review the present system of agricultural marketing in the country and to recommend measures to make the system more efficient and competitive.

Amendments in APMC Acts were suggested by Expert Committee on Market Reforms constituted by the Ministry of Agriculture in June 2001. The Ministry of Agriculture, Government of India accordingly set up a committee under the chairmanship of Shri K.M. Sahni, Additional Secretary, Department of Agriculture and Cooperation to formulate a model law on agricultural marketing in consultation with the states. The Model law for Agri-Marketing Model APMR Act was finalized on 09.09.2003 by the committee and was circulated to States by Central Government. The Act promotes competitive marketing to overcome the monopoly of regulated markets; smooth raw material supplies to agro-processing industries; competitive trading; organized retailing; information exchange and adoption of innovative marketing systems and technologies. The act aims at structural and institutional reforms to make the present agricultural marketing system competitive and efficient.

Amendments Proposed in draft model legislation titled ‘The State Agricultural Produce Marketing (Development and Regulation) Act, 2003 (Model APMC Act)’

- Establishment of private market yards and direct purchase from farmers.
- Establishment of consumer/ farmer market.
- Single registration for trade/ transaction in more than one market.
- No title, rights, ownership or possession shall be transferred or alienated or vested in the contract farming sponsor or his successor or his agent as a consequence arising out of the contract farming agreement.
- Dispute settlement mechanism for contract farming.
- Specification of model agreement for contract farming and the contract farming sponsor shall get the contract farming agreement recorded with the prescribed officer.
- Setting up of separate Market Extension Cell and States Agricultural Produce Marketing Standard Bureau.
- Allow establishment of private or cooperative markets/ farmer-consumer markets/ direct marketing.
• Safeguard the interest of the farmers through provisions for contract farming.
• Single point levy and payment of market fee/ single point registration of functionaries.
• Prohibition of commission agents for agriculturists and no deduction to be made towards commission from the farmers.
• Public private partnership in management and extension activities/promotion of e-trading/ electronic spot exchanges.
• Encouraging professional management in APMCs.
• Promotion of grading and standardization.

Table 2.1: Status of APMC Act Amendments / Progress of Reforms in Agricultural Markets (APMC Act) as on 31.10.2011

<table>
<thead>
<tr>
<th>Status</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>States/ UTs where APMC Act reforms have been done for Direct Marketing; Contract Farming and Markets in Private/ Coop Sectors</td>
<td>Andhra Pradesh, Arunachal Pradesh, Assam, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Mizoram, Nagaland, Orissa, Rajasthan, Sikkim, Uttrakhand and Tripura</td>
</tr>
<tr>
<td>States/ UTs where APMC Act reforms have been done partially</td>
<td>Direct Marketing: NCT of Delhi, Madhya Pradesh and Chhattisgarh</td>
</tr>
<tr>
<td>States/ UTs where there is no APMC Act and hence not requiring reforms</td>
<td>Contract Farming: Chhattisgarh, Madhya Pradesh, Haryana, Punjab and Chandigarh</td>
</tr>
<tr>
<td>States/ UTs where APMC Act already provides for the reforms</td>
<td>Bihar (APMC Act is repealed w.e.f. 1.9.2006.), Kerala, Manipur, Andaman &amp; Nicobar Islands, Dadra &amp; Nagar Haveli, Daman &amp; Diu, and Lakshadweep</td>
</tr>
<tr>
<td>States/ UTs where administrative action is initiated for the reforms</td>
<td>Tamil Nadu</td>
</tr>
</tbody>
</table>

Over the years, most of the State Governments and Union Territories have enacted legislations (Agricultural Produce Marketing (Regulation) Act (APMR Act) to provide for regulation of agricultural produce markets in order to achieve an efficient system of buying and selling of agricultural commodities. Most of the wholesale markets and some of the rural primary markets have been brought under regulation. However, the ground level implementation of the APMC model act is slow and ineffective in most of the states except Andhra Pradesh, Arunachal Pradesh, Assam, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Mizoram, Nagaland, Orissa, Rajasthan, Sikkim, Uttrakhand and Tripura.
Concerns exist about the marketing structure established by regulated markets not keeping pace with the development in other countries. APMCs and the associated system of marketing are allegedly being controlled by traders and commission agents and therefore do not take care of farmers’ interest. APMCs are also said to be inaccessible to a majority of small and marginal producers and are proving to be more beneficial to aggregators rather than farmers. It is also being discussed that APMCs lack certain basic infrastructure and are favoring multiple and exploitative intermediaries. Overall, it is felt that APMCs are failing to provide certain basic functions like cleaning, grading, packaging and quality certification facilities and are not being able to provide the right access to market information and marketing opportunities to the farmers. These burning issues related to the regulated marketing of agricultural output along with the declining agricultural growth raise serious concerns.

Having looked at the demerits associated with the traditional marketing systems it has become necessary to look at alternative / innovative marketing systems. This chapter explains the various case studies or initiatives taken to link the farmers with the market, processing firms, exporters etc. in the country. In this chapter we have discussed alternative or innovative agriculture marketing systems like marketing through farmers groups or farmers association, through cooperatives, contract farming, producer companies, marketing through exchanges, value chain and the warehouse receipt system, that reduce the long supply chain between farmers and end users and are able to give higher returns to farmers.

**Contract Farming / Contract Marketing**

Contract farming is one way of linking farmers directly with the buyers. Contract farming is an agricultural production system carried out according to an agreement between a buyer and farmers, which establishes conditions for the production and marketing of a farm product or products. Typically, in a contract farming arrangement, the farmer commits to providing agreed quantities of a specific agricultural product. This should meet the quality standards of the buyer and be supplied at the time that the buyer determines. In turn, the buyer agrees to purchase the product at agreed pricing conditions and, in some cases the supply of farm inputs, land preparation and the provision of technical advice for the crop cultivation, is given to farmers.

Contract farming is an important initiative for reducing the transaction cost by establishing farmers’ processors linkages and is emerging as an important mode of procurement of raw materials by agri-business firms in India. The firms who are entering into the contracts with the farmers generally provide inputs, guidelines and other services to the farmers and buy back the product at a rate specified in advance. The contract may be entered into by parties any time
from the start of sowing/planting to the harvesting, processing, packaging and marketing stage of the crop.

The intensity of the contractual arrangement varies according to the depth and complexity of the following provisions:

- **Market provision** – Here the grower and buyer agree to terms and conditions for the future sale and purchase of a crop or livestock product.
- **Resource provision** – Here along with the marketing arrangements the buyer agrees to supply selected inputs including land preparation and technical advice.
- **Management specification** – Here the grower agrees to follow recommended production methods, inputs regimes, and cultivation and harvesting specifications.

With effective management, contract farming can be a mean to develop markets and to bring about the transfer of technical skills in a way that is profitable for both the sponsors and farmers.

**Models of contract farming**

There are five models of contract farming viz. centralized, nucleus estate, the multipartite, the informal and the intermediary model. A sponsor decides to follow a model depending on the market demand, production, processing requirements and economic and social viability of the farmers.

**Centralized model:** In this model, the contracting company provides support to the smallholder farmers for production and purchases the produce from the farmers and then process, packages and markets the same. In this process, the quality of the produce is controlled by the company and it is ensured that the produce is of higher quality. This arrangement might involve large number of farmers. The level of involvement of the sponsor in production can vary from providing the correct type of seed to the extent of land preparation, seedlings, agro chemicals and even harvesting services.

Eg: Pepsi for potato, chilies, groundnut and ITC- Tobacco, oil seeds.

**Nucleus estate model:** In this model the contracting firm owns and manages the plantation, usually close to a processing plant. This model is normally used to guarantee the produce throughout the year for the processing plant but sometimes may be used exclusively for research or breeding purpose. The estate is often fairly large in order to provide some guarantee of throughput for the plant, but on occasions it can be relatively small, primarily serving as a trial and demonstration farm. This model is mostly used in case of tree crops/plantation crops like coffee, tea, oil palm, etc.
The multipartite model: In this model, usually the Government, statutory bodies and private companies jointly enter into contract with the local farmers and commitment is made to provide the inputs to the farmers. This might have a separate organization responsible for credit provision, production, and management, processing and marketing.

Eg: Tata Rallis in Madhya Pradesh and Karnataka.

The informal model: This model is basically run by individual entrepreneurs or small companies who make simple, informal production contracts with farmers on a seasonal basis. This model is common for the crops which require only a minimal amount of processing or packaging for resale to the retail trade or local markets. Material inputs are often restricted to the provision of seeds and basic fertilizers, with technical advice limited to grading and quality control matters. This is the most speculative of all contract-farming models, with a risk of default by both promoter and farmer.

The intermediary model: This model has formal sub contracting by companies to intermediaries (collectors, farmer groups, NGOs) and the intermediaries have their own (informal) arrangements with farmers. The main disadvantage in this model is that it disconnects the link between company and farmer. Exploitation may be also seen at both the ends viz.,

- Losing control over production base,
- Losing control over prices paid to farmers,
- Poor quality standards and irregular production.

Table 3.1: Characteristics of contract farming structures

<table>
<thead>
<tr>
<th>Models</th>
<th>Sponsor categories</th>
<th>General characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralized</td>
<td>• Private corporate Sector&lt;br&gt;• State development agencies</td>
<td>Directed contract farming. Popular in many developing countries for high-value crops. In this model company commits to provide material and management inputs to farmers.</td>
</tr>
<tr>
<td>Nucleus estate</td>
<td>• State Development Agencies&lt;br&gt;• Private/Public Plantations&lt;br&gt;• Private corporate sector</td>
<td>Directed contract farming. Recommended for tree crops, e.g. oil palm, where technical transfer through demonstration is required. Company commits to provide material and management inputs to farmers.</td>
</tr>
<tr>
<td>Multipartite</td>
<td>• State Development Agencies&lt;br&gt;• State marketing Authorities</td>
<td>It is a common joint-venture approach. Usually contract commitment is to provide material and management inputs to farmers. Separate organization responsible for credit</td>
</tr>
<tr>
<td>Models</td>
<td>Sponsor categories</td>
<td>General characteristics</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Private corporate sector | • Private corporate sector  
                   • Landowners  
                   • Farmer cooperatives                   | provision, production and management, processing and marketing.                          |
| Informal model  | • Entrepreneurs  
                   • Small companies  
                   • Farmer cooperatives                   | Not usually direct contract farming. It is common for short term crops. Only few inputs are given to farmers. Contract is informal registration or on a verbal basis. |
| Intermediary    | • Private corporate sector  
                   • State Development Agencies              | Sponsors are usually from the private sector. Sponsor control of material and technical inputs varies widely. |

Source: FAO
Andhra Pradesh, Chhattisgarh, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttrakhand, and Uttar Pradesh are the states which provide the favorable conditions for contract farming in India with less total land under marginal fields, good soil productivity, yield per hectare and the better irrigation facilities.
Four types of contract farming models are successfully working in these states.

**Model – Type I**: In this type the contracted farmers and sponsoring firms are involved. The firm entering into the contract with farmers provides the planting material and no credit facility is given by the sponsoring firm.

Fig 3.2: Contract farming mode - Type I

![Diagram](image)

Eg: Nijjer Agro – tomato and chilly in Punjab, Tinna oils – Soybean in Maharashtra, PepsiCo – Basmati in Punjab

**Model – Type II**: This is the three tier model involving the sponsor, farmers and an implementing agency, which could be a private or a public body or a local NGO. Here the implementing agency may charge some minor share of the value of the produce from the buyer and from the farmers as an extension fee.

Fig 3.3: Contract farming model – Type II

![Diagram](image)

Eg: Ion Exchange Enviro Farms Limited (IEEFL) – Organic produce in Maharashtra

**Model – Type III**: This is also a three tier model. Here the middle tier is replaced by a traditional channel member arhatiya (commission agent/middlemen/broker) who helps the corporate in identifying the farmers, arranging for the cleaning and grading of the produce and also
procuring the same. Here, the firm is in direct contact with the farmers for the provision of extension services.

Fig 3.4: Contract farming model – Type III

![Diagram](image)

Eg: United breweries limited– barley in Punjab, ITC-IBD – soybean and wheat in Madhya Pradesh

**Model – Type IV:** In this model all the services are provided under a single umbrella. The implementing agencies which may be an independent corporate or an arm of the buying company coordinate with all the agencies for providing the various services to the farmers under a roof.

Fig 3.5: Contract farming model – Type IV

![Diagram](image)

Eg: Mahindra subhlabh services ltd – basmati, non basmati, maize in Punjab and Tamil Nadu, Escorts machinery group – basmati in Punjab, Cargill India Pvt. Ltd– soybean, wheat, maize in Madhya Pradesh and Uttar Pradesh
Pros and cons associated with the contract farming

Benefits from contract farming

To the farmers

- Assured market and support price.
- It minimizes the price risk.
- Reduces post harvest handling losses.
- Minimizes the malpractices during the marketing of produce.
- Efficient timely technical guidance free of cost.
- Better price for produce- No Middlemen.
- Gain of bulk sales instead of small lots.
- Remunerative returns and timely payment.
- Price assurance.
- Ensures higher production because of better quality seeds and pesticides.
- Reduces marketing and transaction costs.
- Farmer may get financial support in cash/kind.

To the processing company

- It ensures supply of quality agricultural produce at right time and at lesser cost to the company, so risk of raw material supply is minimized.
- It ensures that the toxicity level is reduced as per the requirement for export in case of certain crops by having a better control on production.
- Protection from fluctuations in market price.
- Uninterrupted and regular flow of quality raw material.

Disadvantages of contract farming

- It is involved mostly in cash crops which may lead to shift in area from food crops.
- It may create the danger of imposition of undesirable seeds.
- The temptation of getting commercial profits from cultivation of variety of the crop may cause permanent damage to the land.
- Contracts are liable to be dishonored in case of high level of price fluctuation.

Proposed legal framework of contract farming under Model APMC Act

- Contract farming sponsor to register himself with a prescribed officer.
- The contract farming sponsor to get the contract farming agreement recorded with a prescribed officer.
• No title, rights, ownership or possession shall be transferred or alienated or vest in the contract farming sponsor or his successor or his agent as a consequence arising out of the contract farming agreement.

• Fast dispute settlement mechanism at local level.

• Specification of model agreement for contract farming to ensure inclusion of terms and conditions safeguarding interest of both farmers and buyers.

Case studies on contract farming

1. Contract farming in maize by Suguna poultry

Over a period of 25 years, Suguna has raised itself to become India’s number one broiler producer. Suguna’s pioneering efforts in contract farming helped create thousands of rural entrepreneurs who share the growth successfully. “Poultry Integration” pioneered by Suguna in the country has energized the livelihoods of farmers in rural India.

Maize constitutes a primary poultry feed ingredient. Maize has several uses. It is used in the poultry and animal feed industry, in starch and food industry, in breweries and for human consumption. In the poultry feed industry, maize constitutes about 60% of the feed and hence is a significant raw material. Maize is the main poultry feed, and huge quantity of maize is required for manufacturing of poultry feed. Hence Suguna poultry ventured into contract farming, where the desired quality maize would be cultivated by the farmers and the price is jointly fixed by the company as well as the cultivators. The low availability and high prices for maize have led the poultry units in Tamil Nadu to enter into contract farming with maize growers. According to poultry industry, this is an attempt to procure maize for the poultry sector at an assured price.

Suguna’s maize procurement division, embarked an ambitious program of centralized procurement of maize in the year 2006-07, and has succeeded in creating an efficient, dependable and viable system in Karnataka, Tamil Nadu and Andhra Pradesh. This system has procured about 700,000 metric tonnes of maize in the year 2010-11, which included about 200,000 metric tonnes stored with safe and scientific preservation techniques.
Objectives of Suguna poultry to enter into contract with the maize growers

- To maintain an inventory for a minimum of seven days in all the feed mills across the country.
- To create backward integration by directly procuring maize from the farmers at the farm gate.
- To avoid middlemen and to provide a better return for the farmers.
- To enhance quality standards by establishing uniform and consistent quality product.
- It ensures transparent and fair practices and payment within stipulated time frames.

Suguna’s maize procurement division not only sources the best quality grade maize, but also engages with the maize farmers regularly by imparting training and knowledge transfer of scientific farming practices. This helps to increase the yield and profitability, while providing an assured regular income through buy back guarantees.

Standards followed by Suguna poultry during contract farming

Suguna’s standards of maize selection are known to be the best in Indian poultry industry. With no compromise on quality, Sauna sources the best raw materials for the poultry feed mills in bulk quantities, through contract farming.

Quality standards prescribed for maize by Suguna

- The moisture content should be less than 14% during season and less than 12% during later months.
- The maximum number of grains should be 360 in 100 grams.
- The maize should be fungus free and powder free.
- The maize should not be immature and should be in one piece.
- The maize should not be preserved using *thryrum*.

Direct market linkage between soybean growers and Suguna’s soya processing plants

Along with the maize contract farming, the Suguna poultry is also involved in creating the direct market linkages between the soybean growers and the Suguna’s soybean processing plants. Soybean has been commercially utilized to produce edible oil and animal feed. After oil extraction, the by-products of oil cake and meal are used in animal feed as an important source of protein. Suguna commenced its soya operations in 2004 with the main objective of procuring high quality soya meal for Suguna’s feed mills across the country. Suguna procures high quality soya seed, soya meal and soya oil from Maharashtra and Madhya Pradesh. This Division’s ambitious program has succeeded in creating an efficient, dependable and viable procurement system.
Suguna is authorized by the Government of Maharashtra to procure soya seed, soya meal and soya oil directly from the farmers. Besides Suguna, ITC is the only other company to have this license. The farmers bring their produce to the Suguna collection center where the supplies undergo a quality check and grading. The price for the specific grade of soya is fixed as per fair and transparent norms and communicated to the farmers. This fixed price is valid till the next day. Farmers are assured better returns as middlemen do not play any role at all. The transparent process coupled with fair pricing and payment within stipulated time frame is another advantage to the farmers.

The quality parameters for soybean adopted by Suguna poultry during procurement

- The Maximum allowed moisture content is 10%
- The silica and sand in the supplies cannot exceed 2%
- The expected protein content is 48%
- The damage to the supplies cannot be more than 2%
- The maximum allowed immature seeds in the supply are 2%

The quality parameters for Soya Meal

- The Maximum allowed moisture content is 11%
- The silica and sand in the supplies cannot exceed 1%
- The maximum allowed fiber is 6%
- The expected protein content is 46%
- The maximum allowed Urease activity is 0.2 to 0.3 units
- Accepted protein solubility is 75%
- The supply should be free from Citrinin, Aflatoxin B1, Ochratoxin, T2 toxin
- Over toasted charred lumps and supplies with foul smell are strictly rejected.

The quality parameters for Soya oil

- The maximum allowed moisture content is 0.25%
- The maximum allowed free fatty acid is 1.5%
- The maximum allowed iodine value is 125 Wijs

2. Contract farming of sorghum – a case study of linking the small scale sorghum farmers to market in China (CFC-FAO-ICRISAT Project)

The innovative marketing linkages through contract farming of sorghum between the small scale sorghum growers group and the alcohol industry have yielded positive results. The contract farming project in China was led by Sorghum Research Institute (SRI) of Liaoning
A contract farming model was developed to suit the requirements of the sorghum farming community by involving coalition partners to have holistic approach for improving the livelihoods of sorghum farmers in Heishan and Benninin county villages. SRI facilitated the adoption of the model by the alcohol company and the farmers. The alcohol company played an important role in liaison with SRI in implementing the contract farming model for the benefit of the farmers and the company in a win-win mode. Through the project, SRI was able to bring the sorghum farmers together into an association and build their capacities for joint action.

**Fig 3.7: Contract farming model in China**

- SRI-LAAS multiply selected cultivars and supply
- Company distributes seed and fertilizers to protect farmers
- SRI in liaison with company conducts field visit, technical support
- Farmers grow the crop, harvest, bulking, and supply grain to the company as per the buy-back agreement
- Company pays the price of the grain supplied by the farmers by deducting cost of inputs supplied to the farmers

*Source: Ravinder Reddy, et al., 2012*

The efforts under the project for contract farming have yielded positive results (Table 3.2). These communities have seen an increase in the productivity at the farm level due to adoption of best cultivars and cultivation practices and have also led to the development of new markets for the sorghum farmers. Overall, the remote communities in low-potential areas lacking adequate levels of assets, organization and technical know-how have been benefited by the project interventions.
### Table 3.2: Details of grain production, quantity marketed and price realized in contract farming of sorghum

<table>
<thead>
<tr>
<th>Year</th>
<th>Total production (tonnes)</th>
<th>Quantity of grain sold in free marketing (tonnes)</th>
<th>Quantity of grain sold in contract marketing (tonnes)</th>
<th>Average price per kg grain (USD/kg)</th>
<th>Percent price increase over market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Market price</td>
<td>Project farmers</td>
</tr>
<tr>
<td>2005</td>
<td>874.5</td>
<td>567.5</td>
<td>232.0</td>
<td>0.146</td>
<td>0.175</td>
</tr>
<tr>
<td>2006</td>
<td>990.0</td>
<td>661.0</td>
<td>254.0</td>
<td>0.161</td>
<td>0.182</td>
</tr>
<tr>
<td>2007</td>
<td>3900.0</td>
<td>2741.0</td>
<td>1050.0</td>
<td>0.204</td>
<td>0.226</td>
</tr>
<tr>
<td>2008</td>
<td>4177.0</td>
<td>1412.0</td>
<td>2661.0</td>
<td>0.199</td>
<td>0.219</td>
</tr>
</tbody>
</table>

*Source: Ravinder Reddy, et al., 2012; 1 USD= Rs.35*

### Other benefits to the farmers

- Farmers get extra income from selling glumes. Sorghum pigment industries bought sorghum glumes from farmers, so farmers could get about 58 USD/ha for glumes.
- Farmers got 5-10% of discount on seed price.
- Farmers got 5% of discount on fertilizer price.
- Less seed usage (17% decreased)
- Optimum fertilizer usage (20-25% reduction)

### 3. Case study: Contract farming of sorghum in Ghana

In northern Ghana, sorghum is an important staple cultivated by small farmers and mostly consumed directly as food or processed into local beer. In 2001, the non-profit business organization Techno Serve (TNS) promoted the development of a sorghum supply chain and initiated the Guinness Sorghum Project with the support of stakeholders interested in northern Ghana. The main objective was to increase the productivity and incomes of sorghum farmers mainly through improving high-yielding sorghum varieties, establishing seed multiplication farms and sorghum collection centers and developing and training sorghum producers.

The project’s initiating and implementing partner is TNS-Ghana, which selected the value chain and nucleus farmers before approaching the company Ghana Guinness Breweries Limited (GGBL) as the final buyer. GGBL provides the market for harvested sorghum that meets quality specifications. Other stakeholders involved in the scheme are: i) Savannah Agricultural Research Institute (SARI), which provides agronomical support; ii) service providers, including credit providers, input suppliers, transporters, tractor owners and operators, warehouse operators and cleaning centers; and iii) primary producers, who are out growers. Funds were made available by the Common Fund for Commodities (CFC), through the Venture Capital Trust Fund
(VCTF) of the Government of Ghana, and channeled into the credit system by Sinapi Aba Trust, which was bearing the entire risk of financial loss (Figure 3.8).

**Fig 3.8: Multipartite structure of the Guinness Sorghum Project**

![Diagram of the Multipartite structure of the Guinness Sorghum Project]

*Source: Lisa Paglietti and Roble Sabrie, FAO, 2012*

However this contract farming incurred loss due to some of technical and institutional related issues like pest problems, the environment and sorghum varieties chosen for farming, contractual arrangements and relations between the contracting parties.

4. Contract farming of barley in Northern Karnataka – A case study of Ugar Sugar’s experience with barley

The story of the Belgaum (Karnataka) based Ugar Sugar Works Ltd., which established a successful backward linkage with farmers of Northern Karnataka for supply of barley for its malt unit, is quite interesting and insightful. Farmers surrounding Ugar Sugar in Belgaum, who had been cultivating sugarcane under intensive irrigation found themselves with the problem of salinity in soils. Ugar Sugar took this opportunity to begin creating awareness among the farming community about alternative crops suitable for saline soils. Of these, barley was known to give economic yields of good quality in saline soils. The company assured the farmers of a market for their produce if they agreed to grow barley, as well as the supply required technical and input support.

After intensive research and field testing of over 800 varieties of barley, the company supplied UBE425 variety of barley to its 470 contracted farmers, who mostly owned between 2-5 acres land, were within the radius of 40 kilometer from the company’s malt plant, and had resources enough to irrigate the crop at least twice during the crop cycle.

**Ugar’s barley contract farming model: Key elements**

- The company supplied genetically pure seed on credit to the contracted farmers without interest.
• The price of barley seeds supplied for sowing and the final produce that is procured by the company was the same i.e. cost of the seed was same as that of the pre-agreed price of barley. Hence, the quantity of seed supplied for sowing was recovered at the time of procurement of the produce.
• A technical person from the company visited the farmers’ fields at least four times in a crop cycle, giving free technical assistance.
• The company supplied seed at the sowing points in farmers’ fields, and the final produce was procured from the fields by the company.
• Under the contract, it was obligatory on part of both the contracting farmer and the company to sell and buy respectively the entire contracted quantity at the pre-agreed price.

However, owing to a dip in the international barley prices, presently Ugar Sugar is not in contract for barley production.

**Cooperative Marketing**

Cooperative marketing is the system of marketing in which a group of producers join together and register themselves under the respective state cooperative societies act, to market their produce jointly. The members also deal in a number of cooperative marketing activities i.e., processing of produce, grading, packing, storage, transport and finance. According to the Reserve Bank of India, a co-operative marketing society is an association of cultivators formed primarily for the purpose of helping the members to market their produce more profitably than possible through private trade individually. Co-operative marketing may be considered as a process of marketing of producer, which enables the growers to market their produce at better prices, followed by the intention of securing better marketing services, and ultimately contributing to improvement in the standard of living of members.

**Reasons behind establishing the cooperative marketing structure**

• The malpractices existing in marketing system can be removed to a great extent through the introduction of co-operative marketing structure.
• Co-operative marketing is an essential prerequisite for large scale expansion of co-operative credit. Co-operative marketing societies are expected to ensure a better return to the farmer of the produce with the assistance of loans from co-operative sources.
• The marketing system integrated in a co-operative manner would help to perform functions of assembling, grading, processing, storage and transportation, insurance financing etc.
Co-operative marketing of agriculture produce is necessary not only for the attainment of maximum efficiency but also for improving the economic conditions of the producers by strengthening their bargaining power.

Co-operative marketing would educate the cultivator in the production, preparation for market of the produce, provide sufficient volume of produce to make efficient grading possible and bring the producer into direct contact with export market and with large consumers.

Aims and Objectives of Co-operative Marketing

- The broad aim of co-operative marketing societies is to rationalize the whole marketing system so that it may be beneficial to the producer.
- Strengthen the bargaining capacity of the cultivator.
- Secure the member a better price for their produce.
- Eliminate superfluous middlemen.
- Provide members the needed finance.
- Persuade the farmer to grow better quality goods.
- Stabilize the price.
- Develop fair trading practices.
- Provide the facility of grading and transportation.
- Act as an agent of government for procurement and implementation of price support policy.
- Promote the economic interest of its members by encouraging self-help, thrift and better farming among members.
- Act as a distributive center for agricultural requisites such as seeds, implements etc.
- Help in the expansion of co-operative credit programme by linking marketing with credit.

The cooperative marketing structure in different states consists of

*Mandi level- Primary Marketing Society (PMS)*
The primary marketing societies are by and large located at the secondary market (mandi) or wholesale assembling centers.

*State level- State Cooperative Marketing Federation (SCMF)*
These federations functions at the state level and are intended to serve as apex institutions on behalf of the affiliated society members. They are also expected to procure agricultural inputs and other goods required by the farmers for distribution through co-operative agencies within the state. SCMF also process agricultural produce, undertake construction of godowns, processing units, and manufacturing plants for fertilizers.
National level- National Agricultural Cooperation Marketing Federation of India Ltd (NAFED)

NAFED is a federal organization of state level apex co-operative marketing societies in India. It was established in 1958 with its headquarters in New Delhi. Its chief function is to co-ordinate the activities of state federations and renders advice and technical guidance to them. The federation also undertakes export and inter-state trade. As on 31/3/2012 the membership of the NAFED stood at 842 (Table 3.3).

<table>
<thead>
<tr>
<th>Category of member</th>
<th>Total number of members as on 31/03/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Level Marketing Federations</td>
<td>25</td>
</tr>
<tr>
<td>Apex Level Marketing Federations</td>
<td>03</td>
</tr>
<tr>
<td>State Level Tribal and Commodity Federations</td>
<td>24</td>
</tr>
<tr>
<td>Primary Marketing/Processing Societies</td>
<td>787</td>
</tr>
<tr>
<td>Government of India (Government has no equity participation in the share capital of NAFED)</td>
<td>01</td>
</tr>
<tr>
<td>NCCF &amp; Other National Level Coop. Organizations</td>
<td>02</td>
</tr>
<tr>
<td>Total</td>
<td>842</td>
</tr>
</tbody>
</table>

Source: NAFED, A farmers’ cooperative

India’s dairy cooperative model is a successful model to link farmers to markets and it saves the producers’ from exploitation by the middlemen/informal traders. It improves their bargaining strength, and economies of scale in marketing.

Farmers’ Association / Growers Association / Farmers’ Groups

Farmers’ associations are informal cooperatives managed by farmers themselves. A Farmer Interest Group (FIG) is a self managed, independent group of farmers with a shared goal and interest. The members work together to achieve this goal by pooling their existing resources, gaining better access to other resources and to share in the resulting benefits.

Activities of the farmer’s group

- Conduct meetings,
- Engage in information sharing, (including networking with other groups)
- Conduct field trials,
- Organize bulk selling and purchasing,
- Develop market networks and make market assessments,
- Support individual members on a need basis,
- Identify technical and product opportunities,
- To assist technically in production and improved technology.
Some of the examples or case studies of farmer’s association

1. **SAFAL – fruits and vegetable growers’ association**

SAFAL – village level associations promoted by the Mother Dairy Fruits and Vegetables Limited (MDFVL), has been quite successful in linking fruit and vegetable farmers to markets. SAFAL was first established in 1988 to cater to the growing demand for fruits and vegetables in the metropolitan city of Delhi. At present, there are 250 SAFAL associations with about 20,000 farmer members in the country. This market is a move to introduce a transparent and efficient platform for sale and purchase of horticultural produce by connecting growers through Growers’ Associations with farmers and wholesale buyers in various markets across the country.

This model involves an alternate marketing structure which provides a better price for the producers. Through this approach, there is an increased integration between growers, wholesalers and retailers into the market system. The farmers associations are linked to collection centers that are equipped to meet the specific requirements of buyers in terms of quality, package and weight. Growers are trained in quality management aspects and extension services are provided for production enhancement.

2. **Agrocel Pure & Fair Cotton Growers’ Association, Gujarat, India**

Agrocel Pure & Fair Cotton Growers’ Association is a group of cotton farmers from the arid Rapar area of Kutch who were participating in an organic conversion project established by Agrocel Industries Ltd. Initially, they were an unorganised group of farmers who met informally a few times a year to discuss organic farming issues. With guidance from Agrocel Industries, this loose association was formalized in 2005 into a legal entity with a democratic structure. The small-scale farmers have been organised into functioning farmers associations to also help them improve farming techniques and reduce production costs. Furthermore, with marketing support from Agrocel, the farmers are able to access higher value markets and increase their incomes and profits. Agrocel’s Agri-Service division currently works with more than 20,000 farmers across India. It aims to improve the livelihoods of small-scale and marginalised Indian farmers by enabling them to participate in organic and trade fair promotions and by marketing with added value their production of cotton, rice and other crops.

3. **Mahagrapes**

Mahagrapes is a partnership firm of sixteen growers cooperative and exports its member’s products in international markets. It acts as a facilitator, quality controller, input suppliers as well as service provider to its member societies. Mahagrapes exports its members produce, it negotiates for better prices and arrange the logistics for its members. Mahagrapes does not buy
or sell but just facilitates the export. It has an excellent traceability system so that everyone gets paid as per the quality. As a quality controller, it provides technical assistance, holds workshop and also provides various inputs such as its own brand of biofertilizers, specialized materials, plastic nets, etc. to the farmers.

**Farmers Producer Company (FPC)**

The concept of farmers producer companies was introduced in 2002 by incorporating a new Part IXA into the Companies Act based on the recommendations of an expert committee led by noted economist, Y. K. Alagh, that was given the mandate to frame a legislation that would enable incorporation of cooperatives as companies and conversion of existing cooperatives into companies, while ensuring the unique elements of cooperative business with a regulatory framework similar to that of companies. According to this new law, only farmer – producers can be members of the FPC and the farmer members themselves will manage this company. Paid staff can be employed to help the farmer producers run the FPC. These FPCs are promoted by the farmers, are run by the farmers and are for the benefits of the farmers. Over the years, the surplus generated would be shared among the farmers themselves.

In other words FPC is a hybrid between a private limited company and a co-operative society. It combines the goodness of a co-operative enterprise and the vibrancy and efficiency of a company. It accommodates the unique elements of cooperative business with a regulatory framework similar to that of a private limited company. In a FPC, persons engaged in any activity or connected with, or related to primary produce can participate in the ownership. However, the members have to be necessarily ‘primary producers’. FPC is being established so that it can improve returns to farmers through,

- Collective inputs purchase,
- Collective marketing,
- Processing,
- Increasing productivity through better inputs,
- Increasing knowledge of farmers,
- Ensuring quality.

**A FPC can be formed by**

- Any ten or more individuals, each of them being a primary producer or,
- Any two or more Producer institutions or,
- Combination of ten or more individuals and Producer institutions,
Characteristics of a FPC

- The FPC should be registered under the Companies Act.
- The minimum number of members should be 10.
- The companies shall be termed as limited company.
- The name of the company shall end with the words "Producer Company Limited."
- On registration, the producer company shall become a private limited company.
- FPC is formed with limited liabilities and limited only by share capital. The liability of the members is limited to the unpaid amount of the shares held by them.
- It shall never become a public (or deemed public) limited company.
- Members’ equity cannot be publicly traded, but can only be transferred.

Advantages of FPC

- FPC creates the potential for producer-owned enterprises to compete with other enterprises on a competitive basis.
- It provides the possibility of small producers to form their own companies, without any loss of control of their assets.
- The format provides higher legitimacy and credibility.
- It allows membership of registered and non-registered groups (such as self-help groups or user groups), offering enhanced possibilities for creating a producer company model.
- It has regulations related to disclosure and reporting, thereby, protecting members’ interests.
- A maximum number of 50 members are not applicable to these companies.

Benefits of the members of FPC

The FPC members receive several financial benefits. The most important are;

- Every member shall initially receive only such value for the produce or products pooled and supplied as the Board of Producer Company may determine, and the withheld price may be disbursed later in cash or in kind or by allotment of equity shares, in proportion to the produce supplied to the Producer Company.
- The surplus if any, remaining after making provision for payment of limited return and reserves, may be disbursed as patronage bonus, amongst the members, in proportion to their participation in the business of the Producer Company, either in cash or by way of allotment equity shares, or both, as may be decided by the members at the general meeting.
- Members are eligible to receive bonus shares.
With the introduction of regulation on Producer Company, many producer companies have been incorporated across India. Most of the companies emerging in this space are start-ups which have been promoted by NGO’s or development agencies. Despite all the odds, this concept is slowly picking up in India. A Producer Company has got all the trappings of a cooperative and flexibility of a public limited company. It would be the ideal model to succeed in the marketing of agriculture produces.

Few of the producers company operating successfully in India are as follows;

- Masuta Producer Company Limited
- Indian Organic Farmers Producer Company Limited
- Vanilla India Producer Company Limited
- ESAF Swasraya Producers Company Limited (ESPCL)
- Chetna Organic Agriculture Producer Ltd (COAPCL)
- Sironj Crop Producers Company Private Limited (SCPCL)
- Amul

**Some of the examples of FPC**

1. **Amul**
   Amul was formed in 1946, a dairy co-operative based at Anand in Gujarat. Amul has spurred the white revolution of India which has made India the largest producer of milk and milk products in the world. The Amul model of dairy development is a three-tiered structure with the dairy co-operative societies at the village level, federated under a milk union at the district level and a federation of member unions at the state level. The three-tier structure is set up in order to delegate the various functions. Milk collection is done at the Village Dairy Society, Milk Procurement & Processing at the District Milk Union and Milk & Milk Products Marketing at the State Milk Federation. This structure not only helps in eliminating internal competition but also ensures that economies of scale are achieved. This structure was first evolved at Amul in Gujarat and thereafter replicated all over the country under the Operation Flood Programme, hence it is known as the ‘Amul Model’ or ‘Anand Pattern’ of Dairy Cooperatives.

The main functions of amul are;

- Responsible for Milk production,
- Responsible for collection of milk,
- Responsible for procurement and processing of milk,
- Responsible for marketing of milk and milk products.

Amul meets producer demand for critical inputs, veterinary services, artificial insemination and feed. Today Amul members sell more than 9.2 million liters of milk per day. Amul has always given assurance to the buyer about the quality and their satisfaction and sells them at a
reasonable price. Amul has the best distribution channel and always ensures that the product is available to the customer whenever and wherever they want. It also ensures that every customer complaint is rectified to the extent humanly possible. Amul’s product ranges from milk, milk powder, cheese, butter, ghee, cocoa products, sweets, ice-cream and condensed milk.

**Fig 3.9: Amul products**

![Amul products image]

2. **Indian Organic Farmers Producer Company Limited (IOFPCL)**

The Indian Organic Farmers Producer Company Limited headquartered in Aluva; Kerala is the largest organic producer company in India owned by farmers. IOFPCL was founded in the year 2004 and incorporated under the Companies Act to assist the member farmers in the production and marketing of organic and certified products in the domestic and international markets. The company pays premium price to the producers through collective marketing efforts. The producers with organic certification are eligible for membership of the company. The company provides advice to farmers on mapping and assessing resources (mainly soil and water), sustainable resource utilization and scientific production methods.

The main organic products of IOFPCL are Malabar black pepper, ginger, turmeric, vanilla, coffee, cocoa, coconut oil, and cashew nuts. IOFPCL provides better farm gate price to the farmers by reducing the involvement of the intermediaries.

3. **Mandla Tribal Farmers Producer Company Limited**

Registered and incorporated in the year 2011 under company’s act 1956, promoted by Mahila Kisan Sasaktikaran Pariyojna (MKSP) and Small Farmers Agribusiness Consortium (SFAC), Govt. of India, deals with providing market linkage to the farmers and supply of Agri Inputs to farmers. The vision is to enhance continuous endorsement to farmers to achieve their objectives of higher production and profit and thus to transform economically, socially and pensively backward livelihood into a professional, intellectual and innovative community.
Mandla Tribal Farmers Producer Company Limited is located at Pondi, Madhya Pradesh which deals with cereals, vegetables, oilseeds, grains and pulses.

Objectives/mission of the Mandla Tribal Farmers Producer Company Limited;

- Providing backward and forward linkages to farmers in their agricultural activities, thus overcoming the exploitation by intermediaries.
- Fostering the risk bearing ability of farmers through community development.
- Empowering women to involve in designing the strategies in agricultural activities and hence their implementation in the field.
- Enriching activities of the marginal farmers through quality inputs at affordable price, at proper place at proper time.
- Providing platform to the agricultural produce in regulated markets in order to get relevant price to the product and hence get sufficient profit.
- Evoking the farmers to carry out post-harvest practices like grading, sorting, cleaning, packing, drying etc. to add value to their products so as to get higher returns and in addition, provide storage facilities to increase the shelf life of their agricultural products.
- Motivating farmers to acquire assimilate and adopt reliable, efficient and cost effective technologies and provide processing facilities at economical costs.
- Strengthening the mind set of farmers by creating the sense of belonging and responsibility with the goal of innovations through integrity.
- Commitment to transparency, openness and professionalism in day to day activities.

Institutional innovations in linking farmers to markets

1. **E-Choupal – ITC initiative**

E-choupal is an initiative of ITC Limited, a large multi-business conglomerate in India, linking directly with rural farmers via internet for the procurement of agricultural and aquaculture products like soybeans, wheat, coffee and prawns. The programme involves the installation of computers with Internet access in rural areas of India to offer farmers up-to-date marketing and agricultural information.
Fig 3.10: e-Choupal – ITC initiative

ITC Limited has provided computers and internet access to the rural community, where farmers can directly negotiate the sale of their produce with ITC Limited. E-choupal was launched in June 2000, which has become the largest initiative among all internet based interventions in rural India, reaching over 4 million farmers in about 40,000 villages through 6500 kiosks across ten states (Madhya Pradesh, Haryana, Uttrakhand, Karnataka, Andhra Pradesh, Uttar Pradesh, Rajasthan, Maharashtra, Kerala and Tamil Nadu).

E-choupal facilitates flow of information and knowledge, and supports market transactions online:

- It transmits information (weather, prices, news).
- It transfers knowledge (farm management, risk management).
- It facilitates sales of farm inputs (screened for quality).
- It offers the choice of alternative output-marketing channel (convenience, lower transaction cost) to the farmer right at his doorstep.

Table 3.4: Comparison of conventional transaction v/s e-choupal costs

<table>
<thead>
<tr>
<th>Cost element</th>
<th>Conventional Market</th>
<th>e-Choupal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer incurs per ton of soybean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trolley Freight to Mandi/ITC hub</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Labour</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Kacchha Adat (Commission)</td>
<td>150</td>
<td>0</td>
</tr>
<tr>
<td>Handling Loss</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Total incurs by farmers</td>
<td>370</td>
<td>120</td>
</tr>
<tr>
<td>Processor Incurs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commission to Agent</td>
<td>100</td>
<td>50 – commission to sanchalak</td>
</tr>
<tr>
<td>Cost of Gunny Bags (net)</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Freight to Factory</td>
<td>120</td>
<td>0</td>
</tr>
<tr>
<td>Handling at Mandi</td>
<td>40</td>
<td>40 – storage and handling at hub</td>
</tr>
<tr>
<td>Cash Disbursement Costs</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Total incurs by processor</td>
<td>335</td>
<td>215</td>
</tr>
<tr>
<td>Total chain</td>
<td>705</td>
<td>335</td>
</tr>
</tbody>
</table>

Source: S Sivakumar 2004, Workshop on ICT for Poverty Alleviation in India Financing Models and Scaling up opportunities
2. DSR, Directorate of Sorghum Research, Hyderabad

DSR is actively involved in creating demand for millet foods though value chain approach. Dayakar Rao et al., from DSR studied the impact of innovations in value chain on sorghum farmers. The technological backstopping of sorghum cultivation with end-product specific improved cultivars realized 51 per cent rise in incremental net income for the participating farmers on an average.

Creation of demand for millet through PCS (production to consumption system) value chain

Against the background of declining sorghum cultivation in the country, a renewed effort has been made by the Indian Council of Agricultural Research (ICAR) under National Agricultural Innovation Project (NAIP) aided by World Bank, to create demand for dry land farmers' sorghum through diversifying its food uses (traditional roti form to ready-to-cook forms) by bringing in processing interventions. All the functions from production to consumption are integrated in this value-chain, i.e. on-farm production to consumption (end-user). Further, as part of commercialization of the initiative, Directorate of Sorghum Research (DSR), Hyderabad, has successfully brought out shelf-worthy processed foods based on sorghum after years of research and product development efforts.

In this project the beneficiary farmers are technologically supported by DSR through supply of seeds of improved cultivars suitable for product-specific on-farm production on intensive scale. Integrated farm extension services are provided to the participating farmers in private public-partnership mode through ITC's e-Choupal platform. They are given buy-back assurance. ITC procures and bulks the identity preserved grain of Fair Average Quality from the participating farmers and in turn supplies to the small-scale processors at prevailing market price.

Currently DSR is marketing the following products under the brand name DSR-Eatrite;

- Sorghum multi-grain atta
- Sorghum vermicelli
- Sorghum biscuit
- Sorghum suji/rava
- Sorghum flakes
- Sorghum pasta and
- Sorghum roasted flakes

These products are marketed through Heritage Fresh retail outlets and Choupal Fresh (ITC) and through unorganized retail stores in Hyderabad. DSR has evolved five formats of business plans for commercialization of sorghum products.
DAC, Ministry of Agriculture, Union Government has recognized this pilot effort as a model for backward integration and is contemplating to extend it to other commodity groups with the help of ATMA, NGO’s. Thus, this PCS value chain on sorghum foods brought together both farmers and consumers on the same platform through value-chain concept comprising of other stakeholders too. Farmers are benefited by intensive cultivation and market assurance for their produce while consumers are benefitted by the choice of Sorghum products available for ensuring their nutritional security.

3. ICRISAT

ICRISAT is actively involved in doing innovative research in the semi-arid tropic field crops. ICRISAT is also putting its efforts in creating the sustainable economic inter-linkages between the primary producers and the final consumer or processors or market to enhance the farmer’s income. Some of the project initiatives done by ICRISAT in linking the farmers to market are discussed here.

Linking Producers and Processors - Sorghum for Poultry Feed: A Case Study from India

A good beginning has made by the ICRISAT in collaboration with the ANGRAU to link the small scale sorghum growers with the poultry feed manufacturers. The main aim of the project was to augment the income of small-scale sorghum growers by establishing market linkages with poultry feed manufacturers. Under this arrangement farmers were supplied with seed of improved sorghum cultivars and trained in bulking and storage of grain; poultry nutritionists conducted poultry feed trials replacing maize with sorghum in varying proportions, feed manufacturers developed poultry feed ratios with sorghum. Finally, the project linked sorghum growing ‘Farmer Groups’ with feed manufacturers, thus assuring a market for the sorghum growers and bulk supplies to the industry. It was realized that for poultry feed it is not low price but competition from other competing grains that prevents full usage of grains like sorghum and millets.

ICRISAT, Patancheru, India, along with Acharya NG Ranga Agricultural University (ANGRAU), Hyderabad, has implemented this project funded by DFID (Department for International Development, UK) in collaboration with Non-Governmental Organizations – Federation of Farmers Associations (FFA) and Andhra Pradesh Poultry Federation (APPF) and Janaki Feeds- a private poultry feed manufacturer, aimed at establishing market linkages between sorghum growers and poultry feed manufacturers.

The goal of the project was to link small-scale sorghum producers with poultry feed manufacturers through informal institutional arrangements. The process included the following steps;
• Formation of Farmers’ Association: Farmers Association constituted in each project village consisting of farmers participating in the project.
• Training on specific skills: Farmers’ group trained on grading the sorghum grain as per grain mould severity, bulking the surplus and storing with scientific principles.
• Collective Sale: The surplus sorghum grain stored collectively by the farmers was sold to poultry feed manufacturers after careful negotiations between Farmers Association representatives and feed manufacturers at a mutually agreeable price.

**Fig 3.11: Innovation in supply chain of sorghum adopted in the project by ICRISAT**

**Benefits from the project:**

• It became evident that the sorghum could be used in poultry feed without impairing its quality and the project convinced poultry producers and feed manufacturers.
• In the project the farmers and feed manufacturers worked together to ensure that the quality of the grain was suitable for poultry feed.
• The supply chain was shortened and some middlemen were eliminated, thereby decreasing the transaction cost to both farmers and feed manufacturers.
• The direct link to industry gave the farmers the incentive to operate collectively which increased their bargaining power and reduced marketing and transportation costs.
Marketing through Commodity Exchanges

A commodity exchange is a market in which multiple buyers and sellers trade commodity-linked contracts on the basis of rules and procedures laid down by the exchange. Spot trading of Agricultural commodities through commodity exchange provide trading platform to the farmers and traders for selling and buying of identified agricultural commodities.

Case studies on marketing the agricultural produce through commodity exchanges

**NCDEX Spot – Pigeon pea**

NSPOT is the leading electronic spot market in India and it has obtained license to start spot exchanges for various commodities in Karnataka. Subsequently, spot exchange in pigeon pea was launched in January 2010 at Gulbarga.

MYRADA (Mysore Resettlement and Development Agency) played a vital role in establishment of this NCDEX system. MYRADA is a non-governmental organization managing rural development programmes in Karnataka. Collective initiatives implemented by the groups allow them to work for the improvement to the quality of life of their communities. These federations act as interlocutors and enjoy the support of the local communities.

Taking advantage of this base, NCDEX personnel arranged meetings with farmers at village development centers, watershed development centers and community development centers and also MYRADA campuses. NCDEX personnel also arranged stalls at farmers’ fairs to spread the word among farmers. Before actually commencing these meetings, NCDEX studied the traditional value chain of pigeon pea in this region to identify the loopholes.

In traditional system local aggregators are the main part of value chain on pigeon pea. These aggregators are actually money lenders who provide informal credit to the farmers before sowing crops. These money lenders keep record of acreage under pigeon pea for each farmer which they use at harvesting so as to collect all possible produce from these farmers and not allowing them to sell anywhere else and thus keeping full control on them.

While collecting the produce from farmer, these aggregators make certain deductions like

- 1 kg less in total weight as price for bag
- 1.5-2 kg less as foreign material
- 1-1.5 kg less as broken
- 2 kg less due to improper weighment
- Deduction towards transportation cost
- 2-4 percent interest per month on advance given to farmers
• Any advance money given to farmer

In the new system farmers by themselves handle most of the processes like collection of material and transportation.

Farmers arrange for grading, transportation, packaging and labour in collaboration with Tur Board and MYRDA (NGO). The cleaning and grading equipments and weighing machines etc., have been given to farmers’ associations through Tur Board and MYRDA almost free of cost. It is important that the produce should be of uniform grade (uniform variety of pigeon pea) for each lot of 10 tonnes. As almost 10-15 or even more farmers are required to make a lot, it is really a challenge to build a lot of uniform variety and grade and requires tremendous co-ordination efforts among the farmers.

The MYRDA aggregates farmer stocks through its Farmer Facilitation Centre’s (FFC) spread across 12 locations in the Gulbarga district. These are brought to the accredited warehouse of NSPOT, managed by NCMSL and the warehouse service provider. Farmers can avail pledge loan on their deposits through banks. Once the sale is concluded on the NSPOT, the proceeds are adjusted against pledged loan and other expenditure and balance are transferred to farmer association account. The association members then distribute the proceeds as per the contribution of the individual members.

The electronic spot exchange provides synergy among the existing marketing system in the country with its improvised technology and reach through the online system as it brings a variety of benefits to the existing system such as price transparency, better price realization for farmers and arbitrage opportunities for trader community (Table 3.5). These exchanges are aimed at enhancing efficiencies of the existing value chain of commodities by developing appropriate platforms for modern spot markets, financing of commodities based on credible warehouse arrangements, reducing transaction cost, supporting future exchanges, regulators and the government with standardized and structured spot markets for compulsory delivery in all agri-commodities.
Fig 3.12: Model for NCDEX spot for pigeon pea

Table 3.5: Cost comparison between traditional and NSPOT trading per quintal

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cost in Traditional Trading (Rs.)</th>
<th>Cost in NSPOT Trading (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation/Quintals</td>
<td>50 (Approx)</td>
<td>30 (Approx)</td>
</tr>
<tr>
<td>Weighment and sieving/Quintals</td>
<td>6</td>
<td>12 (At FFC)</td>
</tr>
<tr>
<td>Soot (2kg/Quintals)</td>
<td>100</td>
<td>Nil</td>
</tr>
<tr>
<td>Loading &amp; unloading/Quintals</td>
<td>10</td>
<td>9.50</td>
</tr>
<tr>
<td>Sampling charge (300gm/Quintals)</td>
<td>15</td>
<td>Nil</td>
</tr>
<tr>
<td>Quality assessment</td>
<td>Nil</td>
<td>1.66</td>
</tr>
<tr>
<td>Weighment charge in warehouse/Quintals</td>
<td>Nil</td>
<td>0.40</td>
</tr>
<tr>
<td>Transaction charge/Quintals</td>
<td>Nil</td>
<td>8</td>
</tr>
<tr>
<td>Commission (2% on sell)</td>
<td>100</td>
<td>Nil</td>
</tr>
<tr>
<td>Tur Board</td>
<td>Nil</td>
<td>7</td>
</tr>
<tr>
<td>Warehouse charge/Quintals/month</td>
<td>4.50</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>285.50</strong></td>
<td><strong>74.56</strong></td>
</tr>
</tbody>
</table>

*Source: NCDEX  *FFC= Farmers Facilitation Centre*
With the help of NCDEX SPOT, pigeon pea growing farmers in Karnataka state are able to reduce the marketing cost by 50-70 percent and are also able to sell their produce, whenever they want by paying small charge for warehousing (Table 3.5).

Table 3.6: Difference in price realization by farmers for pigeon pea sale

<table>
<thead>
<tr>
<th>Trade date</th>
<th>Trade rate (Rs/Quintals)</th>
<th>Trade quantity (Quintals)</th>
<th>Premium discount (%)</th>
<th>Net rate realized (Rs/Quintals)</th>
<th>APMC rates on the traded days (Rs/Quintals)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Min</td>
</tr>
<tr>
<td>20.07.2010</td>
<td>4,059</td>
<td>100.4</td>
<td>1</td>
<td>4,100</td>
<td>3,203</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,635</td>
<td>100.6</td>
<td>1</td>
<td>3,671</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,610</td>
<td>99.9</td>
<td>1</td>
<td>3,646</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,664</td>
<td>100</td>
<td>1</td>
<td>3,701</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,620</td>
<td>99.9</td>
<td>1</td>
<td>3,656</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,610</td>
<td>100.2</td>
<td>1</td>
<td>3,646</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,619</td>
<td>99.65</td>
<td>1</td>
<td>3,655</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,605</td>
<td>99.201</td>
<td>1</td>
<td>3,641</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,615</td>
<td>100</td>
<td>1</td>
<td>3,651</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,612</td>
<td>100.4</td>
<td>1</td>
<td>3,648</td>
<td>2,601</td>
</tr>
<tr>
<td>09.08.2010</td>
<td>3,625</td>
<td>99.85</td>
<td>0.5</td>
<td>3,643</td>
<td>2,601</td>
</tr>
<tr>
<td>12.08.2010</td>
<td>3,610</td>
<td>96.95</td>
<td>1</td>
<td>3,646</td>
<td>2,507</td>
</tr>
<tr>
<td>16.08.2010</td>
<td>3,624</td>
<td>103.85</td>
<td>1</td>
<td>3,660</td>
<td>2,901</td>
</tr>
<tr>
<td>17.08.2010</td>
<td>3,886</td>
<td>100.4</td>
<td>1</td>
<td>3,925</td>
<td>3,000</td>
</tr>
</tbody>
</table>

Source: NCDEX

It is evident that the farmers could realize, on an average, 5-10 percent higher price for their produce as compared to modal prices at traditional APMC market. It can be noted that the prices obtained by farmers on NS-spot were lower than the maximum prices for the day. This is due to the fact that maximum prices were obtained by only limited volume of produce, which were coming from restricted origins and enjoy a premium in the spot market. On the other hand, the quality was representative of the FAQ quality for the produce traded at NS-spot.

Though NS-spot has worked on a pilot basis, it has been able to demonstrate as to how farmers can benefit by aggregating their produce and making use of national level spot exchanges, which facilitate efficient price discovery through a national level competition on electronic platform. However, the scalability of the model faces real challenges like aggregation of farmers and pooling their produce of different varieties to achieve tradable lot, making them available, cleaning and grading equipments and training them to adapt to the new system.
National Spot Exchange Limited – Electronic Spot Market

National Spot Exchange Limited (NSEL) is the national level, institutionalized, electronic, transparent spot trading platform for commodities. It is a structured market place, set-up to transform the commodity market by way of reducing the cost of intermediation and thereby improving marketing efficiency. NSEL provides customized solution to farmers, traders, processors, exporters, importers, arbitrageurs, investors and other stakeholders pertaining to commodity procurement, storage, marketing, warehouse receipt financing, etc.

NSEL commenced “Live” trading on October 15, 2008. At present, NSEL is operational in 16 States in India, providing delivery-based spot trading in 52 commodities these includes agricultural commodities, bullion, metals, energy and investment products.

The main objective of NSEL is to develop a vibrant electronic spot market in various commodities and to offer a value proposition to different segments of the commodity ecosystem. The idea is to reduce cost of intermediation and create an electronic linkage between buyers and sellers across the country.

Benefits of NSEL

- Provides an effective method of spot price discovery in various commodities in a transparent manner
- Provides a market where farmers/producers/importers/Government companies can sell their commodities and realize proceeds at the best prevailing price in a risk-free manner
- Offers a market where the processors, end-users, exporters, corporate (both private and Government) and other upcountry traders can purchase commodities at the most competitive price without any counterparty and quality risk
- Provides investment instruments in commodities for retail investors
- Offers a transparent market where investors and arbitrageurs can invest money in buying various commodities across the country without going through the physical market hassles
- Provides 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
- Helps the futures exchanges, Forward Markets Commission (FMC) and the Government in achieving the target of compulsory delivery in all agricultural produce by way of creating a linkage between physical market and futures market
- Promotes grading and standardization of agricultural produce and facilitates warehouse receipt financing to farmers and traders by financial institutions
- Creates a market for trading in negotiable warehouse receipts, both in physical and electronic form
Forward and Future markets

In case of Forward and Futures markets context, ‘Forward trading’ is an agreement or a contract between a seller and a buyer for a kind and quantity of a commodity at contracted price, with deliveries and settlement at a future date. It is a type of trading that provides protection against the price fluctuations of agricultural produce. The producer utilizes future contracts to transfer the price risk. At present, future markets in the country are regulated through the Forward contracts (Regulation) Act, 1952. The Forward Markets Commission (FMC) performs the functions of advisory, monitoring, supervising and regulating future and forward trading. Forward trading transactions are performed through exchanges owned by the associations registered under the act.

The advantages of future trading are:

- Reduction in price variation
- Encouraging competition and providing competitive prices to farmers
- Ensuring a balance in the demand and supply position throughout the year and
- Promoting an integrated price structure throughout the country

Direct Marketing

Direct marketing or the farmer’s market is the system of marketing where the producers and consumers come in contact directly without the intervention of middlemen to buy and purchase the produce. Direct marketing is most successful in horticultural products like fruits and vegetables which are highly perishable compared to the field crops.

Successful case studies of direct marketing in India

**Rythu Bazaar – farmer’s market in Andhra Pradesh**

Rythu Bazaar is one of the most successful models in linking the farmers directly to the marketing. Rythu Bazaars were introduced with a view to eliminate the middlemen and arrange facilities for the farmers to sell their produce directly to the consumers at reasonable rates fixed every day. The rythu bazar was initiated by Government of Andhra Pradesh in 1999. It nearly covers 2,800 villages in the district head quarters and important cities in Andhra Pradesh. The price fixation in rythu bazar is through a committee of farmers and the estate officer. Other essential commodities like pulses and edible oils are also sold in these markets along with fruits and vegetables at reasonable prices. Rythu bazaars have helped both the farmers and consumers, as farmers get better prices for their produce since there are no middlemen in the market and the consumers get fresh vegetables at a lower price compared to other markets.
Table 3.7: Price comparison between AMC (Modal prices), LMR and RBR in the Erragadda, Hyderabad from January 2010 to December 2010 (Price in Rs/kg)

<table>
<thead>
<tr>
<th>Vegetables</th>
<th>LMR</th>
<th>RBR</th>
<th>Bowenpally AMC</th>
<th>% difference b/w AMC &amp; RBR (Farmer’s benefit)</th>
<th>% difference b/w RBR &amp; LMR (Consumer’s benefit)</th>
<th>% difference b/w LMR &amp; AMC (Middlemen’s benefit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomato</td>
<td>14</td>
<td>12</td>
<td>10</td>
<td>20</td>
<td>17</td>
<td>40</td>
</tr>
<tr>
<td>Brinjal</td>
<td>14</td>
<td>11</td>
<td>6</td>
<td>83</td>
<td>27</td>
<td>133</td>
</tr>
<tr>
<td>Bhindi</td>
<td>21</td>
<td>19</td>
<td>13</td>
<td>46</td>
<td>11</td>
<td>62</td>
</tr>
<tr>
<td>Green chillies</td>
<td>20</td>
<td>18</td>
<td>13</td>
<td>38</td>
<td>11</td>
<td>54</td>
</tr>
<tr>
<td>Bitter Gourd</td>
<td>17</td>
<td>14</td>
<td>10</td>
<td>40</td>
<td>21</td>
<td>70</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>15</td>
<td>12</td>
<td>7</td>
<td>71</td>
<td>25</td>
<td>114</td>
</tr>
<tr>
<td>Cabbage</td>
<td>11</td>
<td>8</td>
<td>4</td>
<td>100</td>
<td>38</td>
<td>175</td>
</tr>
<tr>
<td>Carrot</td>
<td>23</td>
<td>21</td>
<td>14</td>
<td>50</td>
<td>10</td>
<td>64</td>
</tr>
<tr>
<td>Potato</td>
<td>13</td>
<td>11</td>
<td>7</td>
<td>57</td>
<td>18</td>
<td>86</td>
</tr>
</tbody>
</table>

*LMR-Local Market Rate *RBR-Rythu Bazar Rate *AMC-Agriculture Market Committee, *b/w- between

Source: Department of agricultural marketing, govt. of Andhra Pradesh, Agmarknet.com

Farmers who are selling through Rythu Bazars were benefited in comparison with wholesale markets. Also consumers who are purchasing through Rythu Bazars were benefited significantly over purchasing in local retail markets. The benefits of farmers and consumers that are being cornered by market intermediaries have also been indicated in the Table 3.7.

**Apni Mandi – Farmer’s market in Punjab**

The Punjab Agricultural Marketing Board started “farmer’s market” in 1987 by the name “Apni Mandi” with a view to boost small farmers around cities and to provide direct access to the consumers, by eliminating middlemen. Facilities like market yard, space, water etc are provided to the farmers. These markets mainly ensure the availability of fresh fruits and vegetables and other produce to the consumers at a reasonable price and encourages the farmers to get a better share in consumer’s rupee, as there are no any middlemen functioning in apni mandis.

**Uzhavar Santhai - Farmers’ markets in Tamil Nadu**

Uzhavar Santhai was established by the Government of Tamil Nadu in 1999. These are maintained by Agricultural Marketing Department and managed by the staff of the Department of Agricultural Marketing, Agriculture, and Horticulture. In this market farmers enjoy better marketing infrastructure free of cost and also receive better price for their produce than what they used to receive from middlemen at village markets. Farmers are additionally benefitted in
the form of interaction with other farmers. In these markets prices of the produce are daily displayed in front of each shop as well as exhibited in big signboards of the market.

Uzhavar Santhai also acts as an information centers for the marketing of fresh vegetables and fruits and provide training associated with the preservation and packaging of perishable fresh vegetables and fruits. Some of the Uzhavar Santhai provide seeds and other inputs directly to the farmers and also provides the transport facility to the registered farmers by tie-up with the state transport department.

**Shetkari Bazar - Farmers’ market in Maharashtra**

In 2002, the Govt. of Maharashtra established farmer’s market in the name of shetkari bazaar in the state and Maharashtra State Agriculture Marketing Board is the nodal agency for implementing this scheme. Shetkari bazaar is established with the objective of helping farmers to get the reasonable prices by avoiding the chain of middlemen in marketing his produce. The Shetkari bazars in the state are managing by the Agriculture Produce Market Committees (APMC) and the produce brought by farmers is not levying any cess. The set up local committees are monitoring the price of the produce.

**Krushak Bazar- Farmers’ market in Odisha**

Government of Odisha started krushak bazar in the year 2000-01, with a view to empower farmer-producer to compete effectively in the open market to get a remunerative share in the consumers’ rupee and to ensure the produce is available at affordable prices to the consumers. For establishing the krushak bazaar Odisha Govt. provides the land with the infrastructure at a suitable place. Identified farmers are provided with photo identity card to operate in these markets. Krushak bazaar also provides the seeds, fertilizers and other necessary inputs to the farmers at the reasonable prices and storage facility for the farmer’s produce. These are mainly located in the urban centers. There are 43 krushak bazars in 24 districts of the state under 36 RMCs (regulated market committees) in the state with basic infrastructural facilities.

**Hadaspar vegetable market – Pune, Maharashtra**

Hadaspar vegetable market is a direct market model linking farmers directly to the consumers which belongs to Pune Municipal Corporation. In this market there are no commission agents / middlemen. It has modern weighing machines and the produce is weighed by licensed weighmen of the market committee and the sale bill is prepared. The buyers are allowed to pay directly to the farmers. If any dispute arises, between buyers and sellers, it is settled by the supervisor of the market committee. Here the market committee collects one per cent sale proceeds from the farmers as a market fee for the service and facilities provided by the committee.
Raithara Santhe - Farmers’ market in Karnataka

In Karnataka, Karnataka State Agricultural Marketing Board has established farmers market or Raithara Santhe without any middle men and provides a place where farmers and consumers directly interact. It provides a direct link between farmers and consumers by eliminating the middlemen to ensure better prices for the farmer producers. It was established in 1.26 acres of land in Yelahanka town during 2002 and is providing good infrastructural facilities for sales of agricultural produces directly from producers to consumers. This market is maintained by Yeshwantpur APMC. There are about 180 stalls/platforms for the farmers to sell their produce. Nearly 1,500 farmers in the surrounding villages, which are located in the Bangalore rural district were identified by the local administration and have been provided with identification cards with photo to make use of this facility. The farmers with identity cards can only sell their commodities in the Raitha Santhe.

Once in every six months, the identity card issued to identify farmers will be validated after verifying the crops cultivated by the farmers. On an average daily 2,000 to 2,500 consumers are visiting ‘Raitha Santhe’ and 150 to 200 farmers are participating in the market to sell their produce directly to the consumers. The board has marketing officers at the santhe who fixes the price in consultation with the farmer and will take into consideration the wholesale and retail prices that prevailed the previous day. The prices fixed will be normally 20 per cent more than the wholesale prices and 20 per cent less than the retail price.

Fig 3.13: View on Farmer’s market

Warehouse and Warehouse Receipt

One of the main reasons for the farmers to sell their produce immediately after harvest is immediate need of cash for meeting day-to-day expenses. This renders the farmer incapable of taking advantage of upward movement in market prices during off seasons. There is a provision of pledge finance by banks where farmers can get loan on the produce stored under accredited
warehouses through banks (about 60-70% of the value of produce stored) on production of warehouse receipts after storing the produce in authorized warehouses. The scheme is limited only to SWCs and CWCs and accredited private warehouses. However, these are located only in district/taluk headquarters and are not easily accessible to all farmers.

A warehouse receipt is a document that provides proof of ownership of commodities that are stored in a vault, warehouse or depository for safe keeping. A licensed warehouseman is authorized to issue a negotiable or a non-negotiable warehouse receipt. It evidences a contract for storage of goods. It is accepted by commercial banks as collateral security for grant of loan against the goods stored in warehouse. Warehouse receipts are made negotiable under the Warehouse (Development and Regulation) Act, 2007 and regulated by the Warehousing Development and Regulatory Authority (WDRA).

As per State Warehouse Act;

1. Every warehouseman shall, at the time when goods are received by him for deposit in a warehouse, issue a receipt in the prescribed form, containing full particulars in respect of the goods stored in his warehouse by each depositor.

2. A receipt issued by a warehouseman shall, unless otherwise specified on the receipt, be transferable by endorsement, and shall entitle its lawful holder to receive the goods specified in it on the same terms and conditions on which the person who originally deposited the goods would have been entitled to receive them.

**Negotiable Warehouse Receipt**

Negotiable warehouse receipts are those receipts where the transfer of ownership of that commodity stored in a warehouse takes place without having to deliver the physical commodity. These receipts are issued in negotiable form, making them eligible as collateral for loans. This warehouse receipt will allow the farmers to avail loans easily from the banks, against this receipt. These receipts will increase the liquidity in rural areas and encourage scientific warehousing of goods.

**Non negotiable warehouse receipts**

A non-negotiable warehouse receipt will only allow delivery to the person or business that is named as the owner in the document. In the current scenario warehouse receipts are not fully transferable so bankers insist for full payment by the farmers before releasing the receipt. Thus, farmer has to arrange for a purchaser before releasing the stock. This makes the process complicated.
The Warehousing Development and Regulation Bill are in initial stages of getting implemented. The same allows for an elaborate system of accreditation/registration of warehouses with the Warehouse Development and Regulation Authority and issuance of fully negotiable warehouse receipts. Such warehouses should necessarily have systems to check the produce and to preserve the produce well for the duration for which the produce is stored. Fully negotiable warehouse receipts would enable up to 100% financing by banks and will reduce the complications of obtaining and paying back bank credit. As on May 2011, hardly 54 warehouses across the country had been registered under WDRA.

**Table 3.8: Capacity of different types of warehouses in India**

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Type of warehouse</th>
<th>Capacity in million metric tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Central warehouse corporation (CWC)</td>
<td>8.5</td>
</tr>
<tr>
<td>2</td>
<td>State warehouse corporation (SWC)</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Food corporation of India (FCI)</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Private warehouses available for hire (estimated)</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Private warehouses used for self use (estimated)</td>
<td>20</td>
</tr>
</tbody>
</table>

**Table 3.9: Commodity wise utilization of CWC capacity as per 31/03/2012**

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Commodity</th>
<th>Utilization (lakh MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Food Grains</td>
<td>52.16</td>
</tr>
<tr>
<td>2</td>
<td>Fertilizers</td>
<td>2.28</td>
</tr>
<tr>
<td>3</td>
<td>Others</td>
<td>36.38</td>
</tr>
</tbody>
</table>

*Source: Central Warehouse Corporation 55th Annual Report, 2001-2012*
Market Information System

Market information systems/market intelligence systems/market information services/MIS are information systems used in gathering, analyzing and disseminating information about prices and other information relevant to farmers, animal rearers, traders, processors and others involved in handling agricultural products. Market information systems play an important role in agro-industrialization and food supply chains. In agricultural marketing, use of market information system is indispensable because it is essential for the farmers, traders and consumers for improving the marketing of agricultural commodities. Market information is an important facilitating function in the agricultural marketing system. It facilitates marketing decisions, regulates the competitive market process and simplifies marketing mechanisms. Regular, timely and reliable market information is needed by farmers in planning, production and marketing, as well as by other market participants in arriving at optimal trading decisions.

Information and communication technologies (ICT) can help farmer’s access current data on commodity prices, weather, and agricultural services. Improved information means better farm management, production targeting, and improved livelihoods. Most of the States and Union territories of India are in one way or the other helping the farmers and traders by providing the market information of agricultural commodities by way of publishing in the Newspapers, Magazines and Government Bulletins, transmitting/broadcasting on the Radio, T.V. etc. This is elaborated in Table 3.10.

Table 3.10: Market information sources

<table>
<thead>
<tr>
<th>Channel</th>
<th>Source</th>
<th>Information provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper</td>
<td>Local language</td>
<td>Information on new varieties, and data on prices</td>
</tr>
<tr>
<td>TV</td>
<td>Local channels</td>
<td>Pest and disease management in crops, livestock rearing, market prices of agricultural commodities</td>
</tr>
<tr>
<td>Radio</td>
<td>Medium wave bands</td>
<td>Market prices, pest and disease management</td>
</tr>
</tbody>
</table>
| Directorate of Marketing and Inspection (DMI) | www.agmarknet.nic.in | • Construction of rural godowns  
• Agriculture marketing information.  
• Training in Agricultural marketing |
| Food Corporation of India (FCI) | www.fciweb.nic.in | Procurement of food grains for effective price support operations for safeguarding the interests of the farmers. |
| Central Warehousing Corporation (CWC) | www.fieo.com/cwc/ | Provide scientific storage and handling facilities                                       |
| Agricultural and Processed Food | www.apeda.com                   | Fixing of standards and specifications for the purpose of export of scheduled products. |
In the recent year, ICT (Information and Communication Technologies) has enabled services such as call centers, and mobile service providers are also providing market information to the farmers by charging an annual fee. Utilizing these advanced information; dissemination sources by farmers would help them to sell their produce at the right place, at the right time and the right price.

ICT, and in particular mobile technologies, are often seen as a game changer in smallholder agriculture, the potential benefits covers many aspects of extension and agriculture development like,

- Increasing smallholder productivity and income.
- Making agricultural markets more efficient and transparent.
- Linking poor farmers to urban, regional and global markets.
- Improving services and governance for the rural poor.
- Promoting – and including smallholders in – agricultural innovation.
- Helping farmers manage a range of risks.
- Improving land and natural resource management and addressing environmental pressure.
- Helping poor farmers participate in higher-value agriculture.
- Supporting the emergence of a more diverse rural economy, and supporting rural families’ decisions about their mix of productive activities.

**Kisan Call Centers**

Implemented by Department of Agriculture and Cooperation, Government of India, A call center based extension service deliver knowledge and information exactly as per the requirements of the farming community. The Kisan Call Centre scheme is available over the
complete country. The Kisan Call Centre came into existence on 21.1.04. The Call Centers can be accessed by farmers all over the country on common Toll Free Number 1551.

Since 10th June, 2004 the Call Center service has been made available right from 6 A.M. to 10 P.M. The Department of Agriculture and Cooperation is working on schemes to use both mass-media and telecom network for the delivery of extension services, a call center based extension service will be delivering knowledge and information exactly as per the requirements of the farming community. The objective of the scheme is to make agriculture knowledge available at free of cost to the farmers as and when desired. The queries are answered by an agriculture graduate knowing the local language and having an understanding of the local agricultural issues.

**Fig 3.15: A view on farmers getting required information through mobile**

![Image of farmers using mobile phones]

**Green Sims Cards**

Green SIM card for farmers is an initiative of the IFFCO Kisan Sanchar Ltd (IKSL). IKSL is a joint venture of IFFCO (Indian Farmers Fertilizers Cooperative) and AIRTEL.

The main objectives of Green Sims Card are;

- Five free voice messages are delivered to the subscribers.
- Each voice message is of one minute duration.
- The message is delivered in the areas of soil management, crop management, dairy and animal husbandry management, plant protection, market rates, weather forecast information, cattle health, government schemes etc.
- The voice messages are prepared by experts on subject of immediate interest to farmers.
The farmers can procure the Green Sims from Primary Agricultural Co-operative Society (PACS) who are also retailers.

**Nokia Life tools**

The Nokia Life Tools was unveiled in 2009 for the Indian market mainly focusing on the rural farmers. Life tools are aimed at rural, predominantly for agriculture communities. It uses SMS to communicate, making it affordable and widely accessible. Nokia Life Tools uses SMS text-messaging technology on cell phones to provide farmers with current information on weather, advice about crop cycles, general farming tips and techniques, and market prices for crops, seeds and fertilizers. Information is delivered in the recipient’s native language.

The content of life tool is:

- **Basic agriculture**: It provides tips on technique and news in agriculture. This pack is available at the cost of Rs 30 per month.
- **Premium agriculture**: Added to the information provided on the technique and news in agriculture, it also provides information on market prices and weather updates. This pack is available at the cost of Rs 60 per month.

**Reuters Market Light (RML)**

Reuters Market Light is a pioneering mobile phone based, highly personalized, professional information service specially designed to support the farming community. It provides expert information to farmers at every stage of their crop cycle, right from pre-sowing to selling of the crop thus enabling them to take informed decisions.

RML performs price quotations for 800 agricultural products on 1350 markets in 13 regions of India. It has expanded its services to information on weather forecasts, agricultural advice and information on input prices. The information is sent by SMS, according to the profile defined by the user (product, market, advice, weather forecasts) in their local language. Personalized advice can also be obtained by telephone through a network of specialists associated with RML, covering various fields of production and agricultural marketing.

RML is sold as an easy-to-use card (RML Direct) in thousands of retail outlets in rural India, provide access to service. RML was launched in India in 2007, and is used by 2 million producers (2011). Farmers using RML now benefit from an average of 5 to 10 percent increase in income because they have access to accurate information, with some farmers reporting increases of up to 23 percent.
**Impact of RML service:** RML service reduces farmers’ risk, increases their income and enhances the country’s food security. Independent research carried out by ICRIER states that farmers’ income increased up to 25% per crop cycle by using RML agricultural information. Some farmers have individually made as much as Rs. 4,00,000 on using the service that costs only Rs. 999 for 12 months.

Studies carried out by USAID – ACDI/VICA have highlighted major shifts in information sourcing behavior of farmers after using RML service. Prior to using RML service, more than 90% of the farmers relied on fellow farmers for their agricultural information needs. After using the service, 80% of the farmers started relying on the accurate and actionable information provided through the mobile phone service. The farmers felt empowered due to the information available to them and started sourcing more information (even beyond that delivered to them through RML service) by directly calling the commission agents in the mandi. Farmers also began seeking information from retailers when demonstrations were done for new products during different training programs.

A sample survey conducted by the Indian Market Research Bureau found that 60 percent of farmers reported that they chose which market to sell their produce, based on the price information they received each day. Aside from the direct financial impact, RML helps farmers to negotiate rates for their crops, make better decisions to enhance productivity, and reduce losses based on reliable agriculture news, crop advisory, and localized weather forecasts.
Chapter IV: Role of Institutions in Building and Sustaining Linkages

Market access is one of the most critical linkages in the farming business for the rural farm households. It is also evident from the case studies presented earlier that market access is a prerequisite for enhancing agriculture-based economic growth and increasing rural incomes. Farmers’ income will not be substantially increased by only giving greater emphasis on subsistence crop production; rather, more market-oriented production systems are needed. These require intensification of agricultural production systems, increased commercialization and specialization of production. And it is necessary that the government or institutions should interfere in the process of linking the farmers directly to the market for legal framework and to draw sustainable packages and to avoid exploitation of farmers from illegal practices.

The mismatch between supply and demand in case of agricultural commodities happens primarily because of the inability of the farmers to forecast the exact demand, changing nature of the demand and lack of efficiency of commodity markets. Unfortunately, farmers lack the mechanism to control and influence the demand. In such situations linking farmers directly to the markets or to the agri. firms, helps in reducing farmers’ risk. Hence it is necessary to link agriculture production system and product characteristics with the preferences of the consumers, processors and manufacturers to achieve market orientation.

Traditionally, government has been the dominant player in the agricultural sector, especially in the areas of marketing and infrastructure development. The involvement of private sector has been limited to marketing of inputs and undertaking processing of some basic items. Several supporting institutions and mechanisms have been put in place to meet the changing needs of the farming sector–enhancing farmer information about markets and modern farming practices, developing linkages with private sector, providing venture capital, providing support for exports, etc. It is evident from the above case studies that the institutions or governments are actively involved in creating the market linkages.

Role/need of institutions in building market linkages

- To create a long-term capacity for farmers, support organizations and business associations to make use of the domestic and international markets for their products/produce through increased knowledge and networks
- To build effective backward linkages
- To build an alliance of organizations, which advices for better policies to enhance the livelihood of the farmers
- To establish practical market linkages between buyers, established business chains, trade facilitation institutions, etc., and producers/farmers
• To empower farmers and support organizations to advocate for favorable trade agreements/arrangements
• To establish the close network among various agri. firms, money lenders/bankers and the farmers

Table 4.1: Present weakness in post harvest issues in Indian agriculture and the suggested recommendations to overcome these constraints through institutional initiatives

<table>
<thead>
<tr>
<th>Weaknesses in Indian Agriculture</th>
<th>Proposed suggestions for the institutional initiatives</th>
</tr>
</thead>
</table>
| Farmers at remote area are unable to get the latest information | • Latest information made available through the websites  
  • Publishing information about the new technologies, market opportunities including export in local newspapers for the benefit of farming community  
  • Utilization of other sources like radio, mobile, television, etc., to disseminate the information among the farmers  
  • Follow-up seminars and study tours for the farmers |
| Lack of farmer level integration resulting in low bargaining power | Demonstrate integration of farmers for common goals through formation of producer company or cooperative or association |
| Lack of integration between the producer, marketers, processor organizations | Engage and align the interests of marketers and processors with the producers through information sharing, infrastructure sharing, technology transfer, consumer-lead production and extension. |
| Lack of value addition at the farm level | From the product-market proposition for a value chain  
  • Identify farm-level value promoting activities that are time sensitive and critical  
  • Establish suitable infrastructure, and models close to farm so that farmers can use these infrastructure for value creation  
  • Supplement infrastructure with training and capacity building  
  • Organize farmers into groups - producer company, cooperatives or association - to aggregate produce, deliver quality and capture value |
## Weaknesses in Indian Agriculture

<table>
<thead>
<tr>
<th>Weakness</th>
<th>Proposed suggestions for the institutional initiatives</th>
</tr>
</thead>
</table>
| Lack of information about the value added products at the consumption level | • Need to advertise the nutritional aspects, palatability of product through mass media  
• Arrange campaign or value added products fair at the cluster level for creating awareness about the product among the consumers  
• Organizing seminars, group meetings and field meeting in collaboration with the government/agriculture/ horticulture department or other institutions to share the knowledge of information about the innovative schemes |
| Lack of market information | Align farmers and marketers with common market intelligence. Create infrastructure for enabling two-way flow of goods and information from and to the farmers |
| Research and extension get no feedback on farmers’ needs. Therefore research does not have any significant impact on farmers. | Establish mechanisms for close contact with farmers to gather their feedback and communicate them to researchers for accurate research efforts |
| Lack of ability to export due to issues related to quality assurance, certification and infrastructure | Establish supportive infrastructure like cold chain. Enhanced integration of farmers with exporters for establishing on farm quality assurance mechanisms. |

*Source: Research results of Foretell Business Solutions Private Ltd, Bangalore*
Chapter V: Guidance on Good Business Practices to be followed in Linking Farmers to End Users

Farmers’ markets and direct farmers to end users marketing systems work towards improving market access for operators of small and marginal farms, helping them to compete effectively outside the traditional APMC based channels. It is necessary to encourage and support development of private direct marketing and farmers market associations and promote collaboration and coordinate regional networking among private and public organizations for the benefit of farming community, in order to help agricultural producers benefit from ongoing consumer interest in direct marketing and strengthen producer and consumer linkages. Institutions like ICRISAT can play a major role in this regard to sensitize farming communities for enabling successful forward linkages with the ground level support from Govt. institutions such as KVKs and NGOs.

Some of the practices to be followed while implementing programs and strategies on linking farmers directly to the market are listed below in sequence;

- The first step is to identify issues and opportunities related to the direct marketing/linkage intervention and how relevant they are for various categories of the stakeholders.
- Conducting timely research and develop intelligence systems, gathering the minimum information needed to make correct decisions in response to changing marketing conditions and to guide participants to the most promising practices.
- Disseminate results of research and data collection through websites, conferences, workshops, training sessions, videos, and publications to have a wide publicity and ensure higher participation apart from sensitizing the key stakeholders on the nature of intervention.
- Explore opportunities of collaborating with other agencies involved in direct marketing, including State departments of agriculture, Extension agents, universities, tribal governments, and farmer organizations and associations. Partnering with these agencies enhances direct marketing efforts throughout the industry and homogenous participation.
- Maintain a clearinghouse or a central location where the research and information and that of other agencies, organizations, and associations is accessible.

Under the linking farmers to markets approach, the development of long-term business relationship are needed rather than support for immediate sales keeping the long term sustainability angle in mind. It is to be kept in mind that small scale producers are able to make choices and seize new economic opportunities such as direct linkages when they have access to
natural, physical, financial, social and human resources. In this scenario, the initial support (by Govt. or institutions) becomes critical to initiate and sustain such programs.

**Best practices to be followed by the institutions/government in linking farmers to market**

- Including small scale farmers in agri. business enterprises.
- Enhancing access to natural resources and local governance.
- Facilitating access to productive assets and markets.
- Providing access to information and knowledge.
- Supporting farmers’ organizations for market access.
- Development of agencies and NGOs engaged in value chain development.
- Including issues like Gender equality and concern for the environment.

**Key concerns for initiating and sustaining direct linkages**

- To promote linkages between farmers and agribusinesses, institutions/governments should initiate promotional linkage strategies and programmes through a network of public/private sector and non-governmental organizations. The services provided by this network should be publicized to create the awareness among farmers and agribusinesses on the specific type of assistance needed.
- To increase access to finance for farm level production or the establishment of agribusinesses, special schemes need to be created such as the Small and Micro Enterprise Promotion schemes with reasonable interest rates and repayment periods.
- To ensure coordinated and well-focused training for farmers and agribusiness entrepreneurs, government/institutions need to play a key role by identifying and strengthening key institutions that can provide the requisite training for farmers and agribusinesses. For example the Department of Extension Services could be strengthened to provide quality services to the farmers. Support can be provided for the establishment of farmers’ business schools to promote business-oriented farmers.
- The legal and regulatory environment needs to be improved by government to enhance investment in agribusiness and strengthen linkages between partners.

**Guiding principles for contract farming**

- Farmers and buyers should have a common purpose when entering into the contract farming.
- The arrangements should be based on the principle that the contract will protect the parties from risks that may occur during the fulfillment of duties and facilitate the execution of contractual obligations.
The agreement should promote agricultural production and guarantee a secure market for the commodity, thereby allowing farmers to earn increased revenue and buyers to obtain a return on their investments.

To be valid, contracts must comply with a number of essential requirements: parties must have the legal capacity to contract and provide free and informed consent.

In cases where a group/association enters into a contract, it must be made clear whether responsibility lies with the individual member or with the group.

Contracts should be concluded by the acceptance of an offer that one party makes to the other.

Contracts should clearly specify the parties’ responsibilities. In addition, contracts must be based on an “object” (i.e. the good or service that constitutes the obligation of farmer and buyer) such as the sale of a designated crop by the farmer and the payment by the buyer.

It would be advantageous if contracts were drafted in the language with which both parties are mostly familiar. In cases where farmers are illiterate, the text of the contract should be read aloud by a third party for establishing the consent of the farmer.

Contracts should be concluded well in advance of the commencement of an agricultural season and farmers should not be pressured to agree to a contract without having first taken necessary advice.

Farmers and buyers should make full disclosure of all information necessary for the conclusion of the agreement and be transparent in all their dealings.

Contracts should clearly indicate the quantity of the commodity to be supplied by the farmer over a period of time, the quality standards required and the means of assessing these on delivery.

Contracts should establish the contract duration and conditions for termination, i.e. a written notice of termination within a reasonable time period.

The price and payment methods should be carefully determined in the contract, including all necessary information to ensure clarity in the performance of contractual clauses.

Contracts should not prohibit or discourage farmers from associating with other farmers to compare contractual clauses or to address concerns or problems.

Contract should have a built in dispute resolution mechanism and lay out the mechanisms to prevent default by either party (de-risking, price revision in bands).

Farmers and buyers should be loyal to each other. Mutual trust and respect are important factors for the success of contract farming operations. Farmers and buyers should consider a long term perspective rather than a transactional or one timer approach while executing contracts.
Area of farmers’ skills that need to be improved for effective market linkages

- Group organizations and management
- Basic market skills
- Experimentation and innovation – knowing how to access and apply new technology
- Negotiation Skills

**Group organization and management**

Many small scale farmers find difficulty to engage successfully in the market. The constraints faced by small farmers in the market includes lack of financial and physical assets, lack of access to key information and services, lack of negotiating power and competitiveness due to the production of very small volumes of low-quality products, and a lack of self-confidence. For the benefit of the small farmers it is necessary to organize groups of farmers to overcome these constraints. Collective marketing can enable these farmers to supply the minimum volume required by buyers.

Membership in a group can enable the weak and powerless to access services collectively which are denied to them as individuals. Overall, groups can harness the strengths of each individual by sharing responsibilities and allowing specialization to occur. Finally, such groups may be an effective way for farmers to increase their self-confidence, manage conflicts and to advocate for themselves in the community, in the market level.

**Importance of farmer organization**

Farmer organizations are important in promoting linkages between farmers and agribusinesses. In Ghana where majority of farmers are small-scale operators, it is both beneficial to the farmer and the agribusiness firm if farmers are organized into effective cooperatives. Effective farmers’ organizations increase the incomes of their members through services such as supplying agricultural inputs, credit financing, provision of transport and storage facilities and advisory and training services. Other benefits are reduced assembling cost, easier planning of production and delivery schedules.

**Guidance for creating successful farmers group**

- Promoting participatory group formation for collective marketing
- Encouraging a group to develop its own management capacity
- Developing the record keeping skill of members within a group
- Encouraging the group to share all learning broadly among its members
Ideal character of the functional farmer group

- Has a shared vision
- Has mutual trust
- Is capable of resolving internal conflicts
- Sustains and shares learning internally
- Have democratic management and the capability to follow its own internal rules
- Identifying and analyzing the profitable market opportunities
- Adding value to the product to satisfy the consumer demand
- Adapting production and post-harvest practices to meet the market demand.

Basic market skills

Farmers with the basic market skills have the ability to identify the promising marketing opportunities and they have the ability to take the decision on what to produce for the particular group of users at the correct time and better price. As these market skills develop over time with experience, farmers learns to negotiate with the consumers as well as other actors in the supply chain such as traders or distributors. Market skills also include understanding concept of profit and loss.

Basic market skills prepare farmers in small groups to produce effectively for the market by organizing their production (for example, the crop variety, the planting dates, the area to plant, etc.) to satisfy market demand these skills also help farmers to organize harvest and post-harvest management to collectively present their products with the quality, amounts and timing requested by the buyers As a result, farmers can improve their share in consumer rupees, and their cash income Acquiring basic bargaining skills helps poor farmers to improve their market power, challenge barriers to selling their products and realize higher profits.

Innovation and experimentation skills

Innovation and experimentation skills enable farmers to access, test and adapt new technical options to improve production, processing and marketing. Production practices and marketing conditions keep changing over the time with changing environmental conditions and consumer acceptance. Hence with the changing environment experimentation and innovation enable farmers to adapt to change and thus to manage risk. Experimentation is also important because it helps farmers respond to markets by changing or improving what they already produce, as well as their costs of production, and so make a profit.
**Negotiation Skills**

Negotiating is a technique of discussing issues among oneselfs and reaching to a conclusion benefitting all involved in the discussion. Negotiation helps to achieve goal without hurting anyone.

**Factors influencing the strength of the linkage**

The strength of farmer linkages with markets is measured by various factors but the ultimate test of strength is the durability and the sustenance of win-win situation. Lastly, let us have an understanding of the various factors that influence farmer-market linkages.

a. **Nature of product**

The nature of product can influence the type of farm-agribusiness linkages that can be formed and the strength of such linkages. Especially with processing, product characteristics such as perishability, storability and quality at the point of processing have implications for the type of farm-agribusiness linkages.

Fruits and vegetable processors for example would establish linkages that involve adequate training of farmers to ensure that raw material supply meets desired specifications. Agro-processors who invest in farmers’ training try to maintain the linkage to avoid the problem of having to train different farmers all the time. The linkage is usually mutually beneficial to both parties as it ensures ready market for the farmer and assured supply of raw material for the processor.

b. **Training and Skill Development**

Training and Skill development are keys to successful businesses. Skills, especially of human resources are necessary for developing and sustaining strong linkages. Skill development is required for all players in the agribusiness chain - farmers and their organizations, managers of agribusiness and traders. It is particularly important for farmers to have the necessary training in order to appreciate the concerns of processors, traders and consumers and address them.

Farmers require training to enable them adopt good farm practices to increase their yields and also meet specification required by the market. They also require managerial skills to enable them manage their farm businesses better as an enterprise. Farmers’ organizations need to be trained on how to manage their organizations and run them profitably to the benefit of the members by inculcating in them managerial and negotiating skills

Training should be provided at all levels, right from improving yields and meeting quality standard requirements and also at the development of the farmer organization. There are
many institutions, associations, NGOs’, private sector service providers who provide training in entrepreneurship. It is important for institutions to co-ordinate these services effectively and make them more accessible to small-scale producers.
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Annexure

Annexure 1: Model Agreement for Contract Farming-1

(All clauses of the agreement are subject to the respective explanatory notes given under "contents of a model contract farming agreement")

THIS AGREEMENT is made and entered into at ___________________ on the _____ day of __________, 2003 between ________________ age _____ ______ residing at _________________________________________, herein after called the party of the First part (which expression shall unless repugnant to the context or meaning thereof mean and include his heirs, executors, administrators and assigns) of the one part, and M/s._________________________ a Pvt./Public Limited Co. incorporated under the provisions of Companies Act-1956 and having its registered office at ___________________ herein after called the party of the Second part (which expression shall unless repugnant to the context or meaning thereof mean and include its successors and assigns) of the other part.

WHEREAS the party of the First part is the owner/ cultivator of the agricultural land bearing the following particulars

<table>
<thead>
<tr>
<th>Village</th>
<th>Gut No.</th>
<th>Area in Hectare</th>
<th>Tehsil &amp; Dist.</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

AND WHEREAS, the party of the Second part is trading in agricultural produce and also providing technical know-how in respect of land preparation, nursery, fertilization, pest management, irrigation, harvesting and alike things.

AND WHEREAS the party of the Second part is interested in the items of the agricultural produce more particularly mentioned in Schedule-I hereto annexed and at the request of the party of the Second part, party of the First part has agreed to cultivate and produce the items of agricultural produce mentioned in the schedule-I hereto annexed.

AND WHEREAS the parties here to have agreed to reduce in writing the terms and conditions in the manner hereinafter appearing
NOW, THESE PRESENCE WITNESSTH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES AS FOLLOWS:

**Clause 1:**

The party of the First part agrees to cultivate and produce and deliver to the party of the Second part and the party of the Second part agrees to buy from the party of the first part the items of the agricultural produces particulars of the items, quality, quantity and price of the items are more particularly mentioned in the schedule I hereto annexed.

**Clause 2:**

The agricultural produce particulars of which are mentioned in the schedule-I hereto will be supplied by the party of the First part to the party of the Second part within the period of __________ months/years from the date hereof.

OR

It is expressly agreed between the parties hereto that this agreement is for agricultural produce particulars of which are described in schedule-I hereto and for a period of _____ months/years and after the expiration of said period, this agreement will automatically come to an end.

**Clause 3:**

The party of the First part agrees to cultivate, produce and supply quantity mentioned in the schedule-I hereto annexed to the party of the Second part.

**Clause 4:**

The party of the First part agrees to supply the quantity contracted according to the quality specifications stipulated in Schedule I. If the agricultural produce is not as per the agreed quality standards, the party of the Second part will be entitled to refuse to take the delivery of the agricultural produce only on this count. Then

a) The party of the First part shall be free to sell the produce to the party of the Second part at a mutually renegotiated price

OR

b) In open market (to bulk Buyer viz. exporter/processor/ manufacturer etc.) and if he gets a price less than the price contracted, he will pay to the party of the Second part, for his investment proportionately less

OR
c) In the market yard and if the price obtained by him is less than contracted price, then he will return proportionately less for the party of the Second investment.

In the event the party of the Second part refuses/fails to take the delivery of the contracted produce for his own reasons then the party of the First part will be free to sell the produce in the open market and if the price received is lower than the contracted price the difference will be on account of the party of the Second part and the party of the second part shall pay the said difference to the party of the First part within a period of ______ days from asserting the said difference.

Clause 5 :

The party of the First part agrees to adopt instructions / practices in respect of Land preparation, nursery, fertilization, pest management, irrigation, harvesting and any other, as suggested by the party of the Second part from time to time and cultivate and produce the items as per specifications mentioned in the schedule-I hereto.

Clause 6 :

It is expressly agreed by and between the parties hereto that buying will be as per the following terms and buying slips will be issued immediately after the purchase

<table>
<thead>
<tr>
<th>Date</th>
<th>Delivery Point</th>
<th>Cost of Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is further agreed that it will be the responsibility of the party of the Second part to take into possession of the contracted produce at the delivery point agreed after it is offered for delivery and if he fails to take delivery within ____________ period then the party of the First part will be free to sell the agriculture produce contracted as under:

a. In the open market (bulk buyer viz. exporter/ processor/ manufacturer etc.), and if he gets a price less than the price contracted, he will pay to the party of the Second part for his investment proportionately less

b. In the market yard, and if the price obtained is less than the contracted price then he will return proportionately less to the party of the Second part for his investment.

It is further agreed that the quality maintenance in transit will be the responsibility of the party of the Second part and the party of the First part shall not be responsible or liable for the same.
Clause 7:

The party of the Second part shall pay to the party of the First part the price/rate mentioned in Scheduled I when his crop has been harvested and delivered to the party of the Second part after deducting all outstanding advances given to the party of the First part by the party of the Second part. The following schedule shall be followed for the payment.

<table>
<thead>
<tr>
<th>Date</th>
<th>Mode of Payment</th>
<th>Place of Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clause 8:

The parties here to shall insure the contracted produce mentioned in Schedule-I hereto, for the period of ______________________ against the risk of losses due to acts of Gods destruction of specified assets, loan default and production and income loss and all other acts or events beyond the control of the parties, such as very low production caused by the serious outbreak of a disease, epidemic or by abnormal weather condition, floods, drought, hailstorm, cyclones, earthquakes, fire or other catastrophes, war, acts of Government, action existing on or after the effective date of this agreement which prevent totally or partially the fulfillment of the obligation of the farmer. Upon request, the party of the First part invoking such acts shall provide to the other party confirmation of the existence of facts. Such evidence shall consist of a statement of certificate of the appropriate Governmental Department. If such a statement or certificate cannot reasonably be obtained, the party of the First part claiming such acts may as substitute, thereof, make a notarial statement describing in details the facts claimed and the reasons why such a certificate or statement confirming the existence of such facts. Alternatively, subject to the mutual agreement between the two parties, the party of the First part may fill his quota of the produce through other sources and the loss suffered by him thereby due to price difference, shall be shared equally between the parties, after taking into account the amount recovered from the insurance company, The insurance premium shall be shared equally by both the parties.

Clause 9:

The party of the Second part hereby agrees to provide following services to the party of the First part during the period of cultivation and post-harvest management, particulars of which services are as follows:

1.
 Clause 10:
The party of the Second part or its representatives agrees to have regular interactions with the farmers’ forum set up/named by the party of the First part during the period of contract.

 Clause 11:
The party of the Second part or its representatives at their costs shall have the right to enter the premises/fields of the party of the First part to monitor farming practices adopted and the quality of the produce from time to time.

 Clause 12:
The party of the Second part confirms that he has registered himself with the Registering Authority ________________ on ______________ and shall pay the fees in accordance with the law prevailing in this regard to the Registered Authority which has jurisdiction to regulate the marketing of agriculture produce which is cultivated on the land described ____________

 OR The party of the Second part has registered himself on _______ with a single point registration Authority namely ________________ prescribed by the State in this regard. The fees levied by the respective Registering Authority shall be borne by the party of the Second part exclusively and will not be deducted in any manner, whatsoever, from the amounts paid to the party of the First part.

 Clause 13:
The party of the Second part will have no rights whatsoever as to the Title, Ownership, Possession of the land/property of the party of the First part nor will it in any way alienate the party of the First part from the land property particularly nor mortgage, lease, sublease or transfer the land property of the First party in any way to any other person/ institution during the continues of this agreement.

 Clause 14:
The party of the Second part shall submit true copy of this agreement signed by both the parties within a period of 15 days from the date of execution thereof with the _________ market
committee/ registering authority as required by the APMR Act / any other registering authority prescribed for the purpose.

**Clause 15:**

Dissolution, Termination/Cancellation of the Contract will be with consent of both the parties. Such dissolution or termination/cancellation deed will be communicated to the registering authority within 15 days of such dissolution, termination/cancellation.

**Clause 16:**

In the event of any dispute or difference arising between the parties hereto or as to the rights and obligations under this agreement or as to any claim, monetary or otherwise of one party against the other or as to the interpretation and effect of any terms and conditions of this agreement, such dispute or difference shall be referred to arbitration authority constituted for the purpose of Authority declared by State Government in this regard.

**Clause 17:**

In case of change of address of any party to this agreement, it should be intimated to the other party and also to the Registering Authority.

**Clause 18:**

Each party hereto will act in good faith diligently and honestly with the other in the performance of their responsibilities under this agreement and nothing will be done to jeopardize the interest of the other.

In witness whereof the parties have signed this agreement on the ____ day, _________ month and _________ year first above mentioned.

SIGNED, SEALED AND DELIVERED by the)

Within named 'PARTY OF THE FIRST PART')

In the presence of .........................)

1....................................................)

2....................................................)

SIGNED, SEALED AND DELIVERED by the)

Within named 'PARTY OF THE SECOND PART')
In the presence of ...........................

1.......................................................

2.....................................................

Schedule I

Grade, Specification, Quantity and Price Chart

<table>
<thead>
<tr>
<th>Grade</th>
<th>Specification</th>
<th>Quantity</th>
<th>Price/Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1 or A</td>
<td>Size, Color, Aroma etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 2 or B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Agmarknet.nic.in
Annexure 2: Model Agreement for Contract Farming-2

Agreement between

Sir..................................S/o...............R/o..........................Village.....................Taluk..................District.
..............................................................................................................................
hereinafter referred to as contract farming Producer or simply Producer.

AND

M/s..................................Address........................................Hereinafter referred to as contract farming
Sponsor or simply Sponsor. We, the above said contract farming Producer and contract farming
Sponsor mutually agree on the following terms and conditions for production and purchase and
sale of.............. (Commodities). The Producer owns/taken on lease an extent of Acres of land in
Survey No..................of .....................................Village..............Taluk..............District..........

2. The Producer agreed to produce...........(Commodity) required by the sponsor
during.................. Season of...................(year/years).

3. The Sponsor agreed to provide the services with service charge specified hereunder/for
production of the said commodity/commodities by the Producer. The Producer agreed to
recover the service charges from the sale proceeds payable to him.

Details of service charge

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Specification</th>
<th>Rate per kg./qtl.(100 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

4. The sponsor agreed to purchase the commodity conforming to specifications at the rates
explicitly given hereunder.

5. The Sponsor cannot demand damages if the produce harvested does not conform to the
specifications and quantity agreed upon.

6. The sponsor has agreed to purchase the entire quantity/...... quintals produced by the
Producer at the rate/s as at clause 4 above.

7. The Producer has agreed to deliver the agreed quantities of commodities first to the sponsor
and if and only if there is any leftover quantity, he is at liberty to dispose of the commodities to
others.
8. The Sponsor has agreed to take delivery of the commodity at the farm/villages after weighment and payment by incurring all expenditure incidentals therefore, like handling, weighment, cost of containers, etc.

9. The sponsor has agreed not to refuse to take delivery of the quantity of produce conforming to specifications given at clauses 6 and 4 above.

10. The sponsor has agreed to give a third party guarantee in the form of bank guarantee for the entire value of the contract agreement.

11. In case the Producer sells the produce to any other person in violation of the terms of the agreement, the sponsor may approach the Market Committee for redressal. Market Committee shall proceed against the Producer including attachment of stocks and properties belonging to the Producer.

12. The sponsor can claim the loss suffered by him for breach of agreement by the Producer.

13. In case the Sponsor fails to take delivery of the produce, the Producer can ask Market Committee to recover the loss sustained by him from the bank guarantee furnished by the sponsor.

14. Any dispute arising out of this agreement shall be resolved as per sub-sections (4) of Section 131-C of The Karnataka Agricultural Produce Marketing (Regulation and Development) Act, 1966.

15. The agreement ceases to be in force on ..........(Date).

Signature of the contract
Farming producer.

Signature of the contract
Farming sponsor

Witness:

1. Name and
   Address(Signature)
2. Name and
   Address(Signature)
Annexure 3: Classification of farmers based on size of holding

<table>
<thead>
<tr>
<th>Classes</th>
<th>Size of land holding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal farmers</td>
<td>&gt; 1 ha</td>
</tr>
<tr>
<td>Small farmers</td>
<td>1-2 ha</td>
</tr>
<tr>
<td>Semi medium farmers</td>
<td>2-4 ha</td>
</tr>
<tr>
<td>Medium farmers</td>
<td>4-10 ha</td>
</tr>
<tr>
<td>Large farmers</td>
<td>10 ha and above</td>
</tr>
</tbody>
</table>

*Source: Agricultural census*
## Annexure 4: State wise number and area of operational holdings for all social groups (2010-11)

<table>
<thead>
<tr>
<th>States</th>
<th>Marginal farmers</th>
<th>Small farmers</th>
<th>Semi medium farmers</th>
<th>Medium farmers</th>
<th>Large farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of farmers</td>
<td>Holding area (ha)</td>
<td>Number of farmers</td>
<td>Holding area (ha)</td>
<td>Number of farmers</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>18167000 (79.23)</td>
<td>6711000 (39.27)</td>
<td>3014000 (13.14)</td>
<td>4200000 (24.58)</td>
<td>1327000 (5.79)</td>
</tr>
<tr>
<td>Bihar</td>
<td>14744000 (91.06)</td>
<td>3669000 (57.44)</td>
<td>948000 (5.86)</td>
<td>1186000 (18.56)</td>
<td>415000 (2.56)</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>6709000 (43.98)</td>
<td>3186000 (16.06)</td>
<td>4049000 (29.56)</td>
<td>5734000 (28.90)</td>
<td>2158000 (15.75)</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>8425000 (63.94)</td>
<td>3727000 (26.08)</td>
<td>2918000 (22.15)</td>
<td>4120000 (28.82)</td>
<td>1399000 (10.62)</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>3891000 (43.86)</td>
<td>1915000 (12.10)</td>
<td>2449000 (27.60)</td>
<td>3466000 (21.89)</td>
<td>1655000 (18.65)</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>6266000 (77.19)</td>
<td>2292000 (35.33)</td>
<td>1182000 (14.56)</td>
<td>1644000 (25.34)</td>
<td>502000 (6.19)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>3849000 (49.14)</td>
<td>1851000 (15.22)</td>
<td>2138000 (27)</td>
<td>3020000 (24.83)</td>
<td>1267000 (16.17)</td>
</tr>
<tr>
<td>West Bengal</td>
<td>5853000 (82.16)</td>
<td>2891000 (52.47)</td>
<td>980000 (13.76)</td>
<td>1557000 (28.26)</td>
<td>267000 (3.75)</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>2512000 (36.46)</td>
<td>1238000 (5.86)</td>
<td>1511000 (21.94)</td>
<td>2162000 (10.23)</td>
<td>1335000 (19.38)</td>
</tr>
<tr>
<td>Kerala</td>
<td>6580000 (96.32)</td>
<td>886000 (58.62)</td>
<td>180000 (27.30)</td>
<td>2820000 (18.69)</td>
<td>57000 (0.83)</td>
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## States

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*Source: Agricultural census data base 2010-11; *Figures in the parenthesis represent the percentages to the respective totals*
Annexure 5: Percentage distribution of number and area of operational holdings in India as per different agricultural census

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Source: Agricultural census