Chapter 1

Introduction

1.1 Introduction
1.2 Definitions, and Types of Contract Farming Schemes

1.2.1 Contract Farming: Definitions

1.2.1.1 Outgrower Schemes
1.2.1.2 Nucleus Estate-Outgrower Schemes
1.2.1.3 Multiparty Arrangements
1.2.1.4 Future or Forward Market Contract for a Specific Product
1.2.1.5 Contracts Differentially Allocating Production and Market Risks

1.2.2 Type of Contracts

1.2.2.1 Market Specification Contracts
1.2.2.2 Resource-providing Contracts
1.2.2.3 Production Management Contracts

1.3 Review of Literature
1.4 Origin, Objectives, Actors and Constitution of the Contract

1.4.1 Origins of Contract Farming
1.4.2 Stakeholders and their Roles in Contract Farming Schemes
1.4.2.1 Governments and State Agencies
1.4.2.2 Private Contractor
1.4.2.3 Farmers
1.4.2.4 Foreign aid agencies

1.4.3 The Contract and its Constituent Components

1.5.1 Evolution of Contract Farming in India
1.5.2 Contract Farming in India
1.6 Emerging Issues
1.7 Objectives of the Study and Research Questions
1.8 Data Base
1.9 Methodology and Framework of Analysis for Different Objectives
1.10 Sampling Scheme
1.11 Study Area
1.11 Design of the Study
1.1 Introduction

New production relations and consumption patterns have started dominating the socio-economic life. Neo-liberal discourse has introduced several systems and institutions which are replacing the old ‘way of life’. Fast growing urban population and commensurate increase in the demand of the processed and packaged food, has created a vast space for the agri-business. With increase in agri-business, fundamental relations between agriculture and industry are transforming. In the past, agriculture and industry were conventionally viewed as separate sectors with respect to their characteristics and their role in economic growth. This view is however changing. Agriculture is increasingly viewed as a form of industry, which can be used in developing different resources through integrated activities, modern technology/mechanization/scientific farm management etc. resulting in high productivity, minimum wastage, better quality and competitive prices.

These micro-economic changes however are taking place in the broader perspective of globalization and liberalization. Globalised and liberalised market regime has brought state disengagement from the several areas. The space has been created for the private sector to take over the roles earlier catered to by the state. Contract Farming has emerged as one such system by which private firms can take over the services from the government such as information, credit, inputs etc (World Bank, 2001: 32). Contract Farming is increasingly being projected as one of the important rural development strategies, which could contribute towards handling some of the major problems and limitations of the Indian agriculture and make it globally competitive and remunerative.

1.2 Definitions, and Types of Contract Farming Systems

1.2.1 Contract Farming: Definitions

Contract Farming is basically an advanced form of the ‘contact’ farming where buyers and sellers are not only in contact with each other but additionally have a contract between them about specificities of the farming and delivery mechanism. Contracts represent forward agreement between buyer and seller about the agricultural production and delivery of the produce. In the literature it has been defined variously, depending upon the nature of the Contract Farming project and nature of evaluation
agency. It is generally referred to as a system where a processing, marketing or exporting unit purchases the harvests of independent farmers and the terms of the purchase are arranged in advance through contracts. The terms of the contract vary and usually specify how much produce the contractor will buy and what price they will pay for it. In some cases contracts have also been associated with credit, inputs and technical advice by the buyer. “The basis of such arrangements is a commitment on the part of the farmer to provide a specific commodity in quantities and at quality standards determined by the purchaser and a commitment on the part of the company to support the farmer’s production and to purchase the commodity” (Eaton and Shepherd, 2001: 14).

Contracting is perceived as the risk distribution measure between farmer and buyer where farmer takes on the risk associated with agricultural production and buyer taking on the risk of marketing and distribution. In practice, there is considerable interdependence between the two parties, and the transfer of risk is not always equitable. The benefits and risks vary according to the numerous intervening factors, nature of which is subject to much debate which will be explored in the review of literature and case studies.

The allocation of risk is at times specified and some times unspecified in the contract, and the contracts in terms of their specifications can vary widely. In some case agreement is to trade a certain volume of production; in others the contract is about the price (which can be market price; average price over a period of time, difference between a basic price and market price etc.) not specifying amount of produce and in others it includes price, amount, quality, input and the services etc.

Contract Farming is perceived to be flexible and cost saving system of operating food chains. Its growth and prevalence is associated with the adoption of profit maximization and cost minimisation principals as fundamental to carrying out any operations. “Contracting out production gives agro-industries seasonal access to ecologically diverse parcels and is most common where high-quality agricultural land is unavailable or unaffordable” (Raynolds, 2002: 784). Contract Farming has been found to be particularly popular in the production of perishable and labour-intensive commodities where the timing and quality of work play a deciding role (Baumann, 2000; Benziger, 1996; Birthal et.al., 2005; Glover and Kusterer, 1990; Key and Runsten, 1999). Contract Production is deeply rooted in advanced capitalist agriculture in the west and also represents an expanding mode of agro-industrial
integration in the third world (Glover, 1984; Mann and Dickenson, 1978; Williams and Karen, 1985). This integration is crucial not only for agriculture and industry, but also for evolution of new kind of production relationships by which dynamic links between growers and capitalists are achieved. "Integration is no longer anonymous as it was previously but personalized through the emergence of companies. It uses as its means contracts integrating direct producers --- conforming to the micro-economic pattern of the economy" (Verogopolous, 1978: 451). The notion of contract is central to any understanding of the social integration of peasants into corporate relations of production (Watts, 1992). Contracts, in the expanded and incomplete sense are found in agriculture everywhere and are extremely heterogeneous in form (Buch and Marcussen, 1982; Rehber, 2000). Simple market specification contract or future purchase agreements (typically determining price, quantity and time of delivery) are common place between growers in US agriculture (Marion, 1986; Sporleder, 1983). Labour contracting in which certain on-farm operations are performed by contractors (characteristically supplying labour and machinery) appears throughout the Euro-American agriculture. In third world situations including India, where market relations are imperfect and complex, contractual relations- sharecropping and interlinked labour-recruitment contracting are deeply embedded in local social relations (Binswanger and Rosenzwieg, 1984; Fulton and Clark, 1996; Srivastava, 2000; Haque, 2000, 1999). These indigenous contractual arrangements can refer to any oral or written agreement between individuals that specify fixed terms in advance and is subject to customary practices (Ghosh, 1994; Robertson, 1987; Scott, 1984).

Contract Farming or contract production must however be distinguished from the multiplicity of simple marketing, labour, or single farm operation contracts. Specifically, Contract Farming entails relations between growers and agri-business firms which substitute for open-market exchanges by linking 'independent family farmers' of widely variant assets with a processing, export or purchasing unit which regulates price, production practices and credit arranged in advance under contract (Glover, 1983; Goldsmith, 1985; Watts, 1992; Key and Runsten, 1999). The classic, if all encompassing definition provided by (Roy, 1972: 3) refers to

*Those contractual arrangements between farmers and other firms, whether oral or written, specifying one or more conditions of production and marketing of an agricultural product.*
The definition of Contract Farming is often confused because there are many different types of contracts and actors (private sector firms, public sector firms and parastatals, international aid agencies). The definitions suggested by Ellman (1986) and Glover and Kusterer (1990), provide an insight into the types of schemes which exist under the label ‘Contract Farming’.

1.2.1.1 Outgrower Schemes

Schemes that provide production and marketing services to farmers on their own land. For Glover and Kusterer (1990), these generally connote a government scheme with a public enterprise, purchasing crops from farmers, either on its own or as a joint venture with a private firm. Glover and Kusterer (1990) also use the term Contract Farming to refer to the same arrangement in the private sector.

1.2.1.2 Nucleus Estate-Outgrower Schemes

A core estate and factory is established and farmers in the surrounding area grow crops on part of their own land, which they sell to the factory for processing.

1.2.1.3 Multiparty Arrangements

A term often used in the literature to emphasize the participation of several actors that may include firm, farmer and any other agency such as government.

The variable definitions used in the literature make it difficult to establish a rigid categorization of these terms. Contract Farming minimally necessitates a crop agreement made in advance, the processor-buyer-exporter (the non-farm firm) has access to a portion of on-farm resources and shares in varying degrees the decision-making power with the grower. The contract embodies both the relative autonomy and subordination which the grower experiences in relation to the labour process; it also contains differential levels of direct and indirect control. Welsh argues that Contract Farming leads to the shift in the agricultural production decisions from level to the off-farm firms (Welsh, 1997). Contract Farming as a distinctive form of productive organization can be circumscribed by one or all of three basic attributes:

1.2.1.4. Future or Forward Market Contract for a Specific Product

It forms the centre of contract where both parties commit to buy and sell at specified volumes and/or acreages though the duration and specificity of the contract varies considerably. Contractor can be an agent of international agribusiness, a local merchant, the state or joint enterprises.
1.2.1.5 Contracts Differentially Allocating Production and Market Risks

In this form of contracting purchase commitments vary with respect to provision of inputs, services and supervision of growers. Contractually linked markets generate a division of labour with different forms of autonomy and subordination. There is no presumption of market destination (crop may be destined for local or foreign market with or without processing). Crop share contracts without price determination share production risk between contractor and grower. In price specified contracts, the grower is bound by a rate system in which he/she bears production risk but none of the price risks (Konings, 1998).

In Contract Farming some form of regulation, control and shaping of the labour process by the contractor is central. It represents quite specific social relations of production in which independent commodity producers (family farmers, peasants) are subordinated (Watts, 1992). Genesis and proliferation of Contract Farming reflects the growing links between commodity markets and equally specific manufacturing and retailing process which are characterized by particular social relations within and outside farm enterprises (Friedmann, 1978). Contract Farming has also been perceived as a means to underwrite the preservation of small-scale commodity production (Curie and Ray, 1986). It marks a critical transformation and recomposition of the family farm sector as capital saturates the entire agro-industrial complex, converting growers into 'self employed proletariat' without directly taking hold of the point of production (Clapp, 1988; Goodman and Watts, 1994; Watts, 1992). "For individual farmers, it is not the contract per se, but the relationship it represents which is important as the divergence between the two may prove crucial in determining the development of Contract Farming as an institution" (Clapp, 1988: 20).

Contract Farming can be structured in a variety of ways depending on the nature of crop, the objectives and resources of the sponsor and promoters and experience of the farmers. Any crop or livestock product can theoretically be contracted out using any of the models; however, certain products favour specific approaches. (Kohls and Uhl, 1985; cited in Rehber, 2000: 10) has classified contracts into following broad categories:-
1.2.2 Type of Contracts

1.2.2.1. Market Specification Contracts

These are future purchase agreements which determine quantity, timing and price of commodities to be sold.

1.2.2.2. Resource-Providing Contracts

They specify the sorts of crops to be cultivated, some production practices and the quality and standardization of the crop through the provision of technical packages and credits.

1.2.2.3. Production Management Contracts

These contracts are associated with large outgrower and nucleus-estate schemes, directly shape and regulate the production and labour processes of the grower. Glover and Kusterer, (1990) suggest that contracts can be thought of as varying in 'intensity'. At one extreme, the company pays the market price on delivery and exercises little control over production. At the other extreme, prices are fixed and the contractor exercises constant and rigorous control over all aspects of production (Kirk, 1987). The crucial problem that arises before the farmers is the division of value added between themselves and the contractor. This is usually not a reflection of real value added but of relative strengths. Implementation of the contract takes place in specific social and political context which makes a difference in deciding about its welfare or exploitative nature (White, 1997).

1.3 Review of Literature

The literature on Contract Farming covers a wide variety of areas and involves interdisciplinary focus. Large numbers of studies have been carried out evaluating one or the other aspects of the Contract Farming schemes; some have been carried out totally independent of other and little or no cross referencing. However many studies have been carried out with ideological perspective and evaluate Contract Farming in that light. One approach to understand and evaluate Contract Farming utilizes the tools from social as well as natural sciences and gives emphasis on the characteristics of the crop. It holds that technical characteristics of the crop play a key role in determining production relations in Contract Farming (Baumann, 2000; Benziger, 1996; Binswanger and Rosenzweig, 1986; Bithal et al., 2005; Glover and Kusterer, 1990; Young, 1993). This commodity-based approach differentiates schemes on the basis of whether they produce ‘classical’ export crops (tea, oil palm, sugar),
horticulture or staple food crops (Lewis, 1985). The argument is that each contracted commodity is associated with specific conditions of production and labour regimes, which affect its potential for being incorporated in the Contract Farming network. Commodity specific production regime determines whether the crop will be better operated as Contract Farming scheme under centralized model or under decentralized Contract Farming scheme etc. Under this school of thought, the success of different crops in Contract Farming arrangements is primarily determined by their properties and outputs (USAID, 1994).

There are number of studies, which have examined Contract Farming schemes from individual project perspectives. Glover and Kusterer (1990) have extensively researched Mumias sugar project in Kenya and the projects of Kenyan Tea Development Authority. Similarly Benziger (1996) and Singh (2004, 2002, 2000) have given detailed account of the schemes covering various aspects in their study on Thailand and India respectively. Numerous country specific and project specific studies also have tried to give insight of the schemes implemented by different agencies (Commonwealth Development Corporation, 1989). A study carried by International Development Research Center (study), has focused on eastern and southern Africa and has provided some of the most detailed information available on grower incomes and returns, marketing and production costs. This review has tried to draw both on these case studies and on the literature, which examines Contract Farming from a broader developmental perspective. Much of the literature evaluating development impact of Contract Farming is polarized. Agrarian transition is also one of the important theoretical parts examined in the Contract Farming. The other, more policy oriented part of the literature has focused on policies and strategies for promoting the development of agro-production. At polarised extremes of this literature, are the agri-business promotion approach and the political economy approach. The former considers Contract Farming to be an opportunity for the transfer of technology to the smallholder and a means through which they can enter the market with minimal risk. This can lead to large increase in incomes and employment in agriculturally backward regions and brings a break in form low levels of productivity and instability in production, thus putting local economy on a dynamic path of growth and development. The agri-business firms take on risk by undertaking new projects in processing and marketing and provide a stream of cash flow to local economy. In this sense, Contract Farming complements current paradigms that advocate free trade,
private sector growth and smallholder efficiency (Benziger, 1996; Birthal et al., 2005; Eaton and Shepherd, 2001; Glover, 1990, 1987, 1984; Glover and Kusterer, 1990; Goldsmith, 1985; Rehber, 2000). The political economy approach on the other hand presents a highly critical account of Contract Farming, and considers it in a dependency theory framework as an exploitative extension of international capital (Nanda, 1995). This approach considers Contract Farming as a process of industrialization of agriculture and rural production which takes place through simultaneous processes of 'appropriationism' and 'substitutionism' (Singh, 2004). Whereas 'appropriationism' operates as a process of exploitation of land and other biological sources of supply by the application of modern and advanced technology to get more and cheaper raw materials, substitutionism as a process tries to move away from direct dependence on land and other direct sources of raw materials by way of application of technology to create new products and sources of products. Thus, the two processes, though contradictory are driven by the same agri-business forces. In this form, Contract Farming is considered similar to the practice of subcontracting in the industrial sector under which large firms farm out many production activities to small firms and benefit from lower costs and better skills. This view, considers Contract Farming as a mode of capitalist penetration of agriculture for capital accumulation and exploitation of farming sector (Clapp, 1988; Friedmann, 1978; Goodman and Watts, 1994; Payer, 1980; Singh, 2004, 2002; Vergopoulos, 1978; Wells, 1984; Welsh, 1997).

There are however, a few academicians and practitioners in between these two extremes whose work is more useful for our purpose. There are a few notable comparative case studies (Baumann, 2000; Benzigger, 1996; Glover, 1987; Glover and Kusterer, 1990; Gordon, 2001; Korovkin, 1992; Little and Watts, 1994; Porter and Phillips-Howard, 1994; Rehber, 2000; Vaughan, 1991; Warning and Key, 2002; White, 1997; and Young, 1993; Tamanoi, 1988) that have tried to isolate the determinants of smallholder welfare in outgrower schemes. Watts (1992) has been an outspoken critic of Contract Farming and considers it to be essentially a system for self-exploitation of family labour 'replete with company manipulation and abrogation of contracts'. He draws attention to the 'oppositional energies' evoked by contract arrangements; the way that contracts function both as a means of subordination and a point of resistance. Little and Watts (1994), argue that the problems arising from unequal power relationships as well as market fluctuations, often make Contract
Farming unsustainable in the long term. They do however suggest that, because of the diversity of contract relations in terms of scale and conditions, "it is better to focus on the motives and power relationships of contracting parties than on the generic institution" (Glover 1984: 1145).

Glover (1984, 1987) in his comparative studies presents more positive picture of the potential of Contract Farming. While acknowledging that contracts are often exploitative he also emphasizes that Contract Farming and outgrower schemes have very often led to a significant rise in living standards. He also points out that there is far less room for exploitative relations between the outgrower and contractor in the Contract Farming schemes than in traditional patron-client relations. The smallholder cannot be forced but has to be induced to become an outgrower and the main inducement is price. He maintains that Contract Farming should be examined case by case in order to understand its potential as a tool in rural development strategies. Such a study should focus on an analysis of the economic logic behind Contract Farming and its political implications, in particular the effects of contract growing on the process of empowerment and political organization by outgrowers. His studies have also paid considerable attention to the impact of Contract Farming on regional development and those issues not included in the contracts.

Impact on the familial and social relations of production in the Contract Farming areas has also been widely researched. Gendering of the farm tasks and exacerbation in the tensions based on the gender relations has been noticed. In some of the cases introduction of Contract Farming has led to further widening of the gap between women and men over control of resources (Singh, 2003). In addition, it has further reinforced already ongoing process of social differentiation in the areas (Bulow and Sorensen, 1993; Collins, 1993; Carney, 1988; Porter and Phillips-Howard, 1995, 1997; Raynolds, 2002; Ramamurthy, 2000; Singh, 2001; Young, 1993).

In some of the studies Contract Farming has also found to be worsening the environmental situation in the areas. Siddiqui, (1998) and Morvaridi (1995) in particular has been very critical of the Contract Farming schemes as he found out that severe deterioration in the water table has occurred in the Contract Farming areas.

Contract Farming has attracted such polarized viewpoints for several reasons. One is that with its dramatic linking of smallholder and national/international capital, it is bound to excite pre-existing ideological viewpoints of what the outcome of such
collaboration would be. Another is that there are many actors in Contract Farming (it is very difficult to define a simple private-public dichotomy in Contract Farming) and most have different motives. There is firstly the economic logic of Contract Farming as a way to divide risk between growers and contractors. There is also the public motive of promoting smallholder development, transferring technology, building a smallholder political base and generating foreign exchange. Further, smallholders are motivated by, amongst other factors, economic security, cash flow and risk avoidance (Torres, 1997). These private and public objectives, often operating simultaneously in a fluctuating market, can obscure what part of Contract Farming is being evaluated and how. Nevertheless, an examination of institutional roles and objectives is valuable for an understanding of how Contract Farming might work. Policies to promote Contract Farming would be motivated both by development and profit objectives; smallholders would be motivated by both cash and price security; and public policies will have to balance consumer and producer prices etc.

1.4 Origin, Objectives, Actors and Constitution of the Contract

This section will try to examine the emergence of Contract Farming, the objectives of the different actors involved and the constitution of the contract.

1.4.1 Origins of Contract Farming

Emergence of Contract Farming has taken place under the influence of various factors. Direct and indirect influences of these factors have charted out a direction for the emergence of Contract Farming as mode of food chain operation. One factor was the fast changing international climate and emergence of many nation states in the 50s and sixties. Post Independence nationalist pressures in some of the countries forced some of the plantations and agribusiness ventures to adopt a strategy for the sourcing of agricultural products. Threats of expropriation and new conditions of operations and profitability under a changing international division of labour led to the closing of erstwhile plantation economy operated under colonial period. Instability born out of political uncertainty over nationalization and tax regimes, unionization of some labour forces and price instability let to realisation by international foreign capital that it will be easier to operate short-term contracts with smallholders than the full scale management of an estate. Second factor was the promotion of such schemes by the states and international agencies where independent peasants and newly settled pioneer farmers were incorporated into Contract Farming schemes under state and/or
private auspices. These schemes were often run in cooperation with international lending agencies and development banks. The International Finance Corporation and the Commonwealth Development Corporation were amongst the biggest supporters of outgrower schemes and have pioneered palm oil, cocoa and rubber contracting across Asia, Latin America and Africa. Little and Watts (1994) have traced the recent popularity of Contract Farming to IMF austerity measures and attempts to revive flagging export markets. The World Bank has promoted Contract Farming as a way of creating dynamic partnerships between private capital and smallholders in order to foster technology transfer, innovation and market growth. Most Contract Farming schemes have more than one sectoral actor involved, especially in Africa where cases of strictly private sector schemes are rare. The usual model for large Contract Farming schemes is for the state to have some involvement; a review of 67 Contract Farming schemes in Africa by Little and Watts (1994) showed that 70 percent had either full or joint state ownership. Some of the largest outgrower schemes such as palm oil in the Philippines, rubber in Malaysia and tea in Kenya were public sector schemes. In practice the public-private sector dichotomy has been even more complex, because a public sector scheme has been under private management; or a private scheme was supported by subsidies, extension and research. Judgments on the economic logic of the contract vary widely. Neo-classical economists would argue that contracts are freely entered and serve to insulate the small producer from the market (Eaton and Shepherd, 2001). They allow the smallholder to make use of their endowments in imperfect markets and arrive at combinations of income, effort and risk, which reflect their resources and preferences. Little and Watts on the other hand argue that “contract production among peasant and smallholder growers aims to exploit non-wage household labour through dense networks of dependence and subordination” (1994: 65). Institution of Contract Farming has been operating in such varied forms that it will be better to look at the motive of each participant, rather than deciding on the institution in its generic form (Little and Watts, 1994).

1.4.2 Different Goals of Participants in Contract Farming Schemes

“In many cases, a single Contract Farming scheme has been implemented to fulfil the multiple and often conflicting objectives of its various partners” (Glover, 1987: 442). The development component of schemes sometimes requires the schemes to meet certain criteria for equity, but development projects have often been found to be not economically viable in the long run. In other cases, ‘contractor monopsonsy’
and profit maximisation, often combined with a powerful contract, can have serious repercussions for small contract farmers. These problems are all the more difficult to disentangle and evaluate when a scheme has multiple partners with different and sometimes hidden agendas.

**1.4.2.1 Governments and State Agencies**

State agencies opt for Contract Farming schemes as a potential measure to combine development issues with the greater export earnings. Therefore Contract Farming schemes become economically and politically attractive (Sachikoyne, 1989). They give the impression that large scale transfer of foreign technology and capital without corresponding ownership transfer of large tracts of land. Besides they can also create impression that other features associated with plantations such as the enclave effect are avoided. Contract Farming schemes may also appeal to governments who while realising the political necessity of addressing the needs of the smallholder, prefer to keep them under a central authority (Ellman, 1986). He has further found that the stated aims of the government to increase cash and food crop production; maximize rural employment generation; improve social facilities and rural infrastructure often clash with implicit objectives which are to (1) accord political acceptability to a plantation-type project; (2) to mobilise cheap family labour for production; and (3) to move possibly reluctant farmers from a heavily populated area to an under populated one. Moreover, in many cases it was found that contracting has created lucrative opportunities for absentee landlords, especially with plantation crops such as rubber and trees in Thailand on a Commonwealth Development Corporation (CDC) scheme which are not labour intensive.

Glover and Kusterer (1990) argue that contracting has trade-offs for policy makers, even if their objectives are solely motivated by promoting rural development. "The contracting relationship is not a 'zero sum game'; the distribution of benefits between the firm and its growers can affect the total magnitude of benefits available" (1990: 157). For example, a bank may supply credit to the growers and expect high producer prices so that the growers can repay their debt; the price control agency will try to keep prices down to safeguard the interests of the consumer, and the taxman will expect enough revenue for the company to be able to generate higher tax returns from profits.
1.4.2.2 Private Contractor

Most of the crops brought under Contract Farming have economies of scale in infrastructure, processing and transport associated with their production for sale. Many of them were traditionally grown in plantations and estates for this reason. Contract Farming schemes that allow the company to delegate production to smallholders have several advantages. The contract assures the company of regular inputs of raw material from the smallholders so that it is able to meet its economies of scale. They would not be able to achieve this through purchases on the open market, whereas contracts can specify planting dates as well as total quantity to be delivered. The contract therefore both reduces uncertainty and gives the company control of the production process. Further, the company does not have to invest in land, hire labour or large scale farming operations. Some companies retain a ‘nucleus estate’ surrounded by contract farmers especially when the economies of scale of the processing plant (such as for palm oil and sugarcane) depend on a certain volume of throughput. Many companies have withdrawn from production completely, delegated responsibility for processing, and retained control of only the most critical stages of marketing. Avoiding conflict over landownership and labour issues is an important advantage of the contract, whatever the level of integration of the company. Little and Watts (1994) argue that not only does Contract Farming allow potential problems with labour to be avoided, but it also allows the company to profit from tendency for the self exploitation of the small farmer under big agriculture ventures. Apart from these economic reasons there are several political reasons why Contract Farming is attractive to private companies. It allows the company not to invest too many resources in a country and therefore to avoid the risk of appropriation. Contract Farming, presented as a smallholder friendly scheme, can be good for the public image of a company and give the impression that it is progressive. This can be exploited by the company to encourage the State, or even international aid agencies to provide credit and concessions for operating capital or claim subsidy for carrying out development tasks.

1.4.2.3 Farmers

The primary motive for independent farmers to become contract farmers is market access, and therefore increased income from the sale of a cash crop with an acceptable level of risk. Imperfection in the markets (local and international) for commodities is the main reason which motivates farmers to become contract farmers.
High volatility breeds high insecurity for the farmers. Agri-business protagonists hold that international markets are more stable than local markets and Contract Farming schemes provide accessibility to international markets, which are otherwise inaccessible to farmers without specific channels (Benziger, 1996; Eaton and Shepherd, 2001; Goldsmith, 1985; Key and Runsten, 1999). Therefore contract farmers adopt the schemes to benefit from the stability provided by the international markets. Besides, smallholders are often reluctant to adopt new technologies because of the risks involved. Further, there is no guaranteed supply of inputs such as fertilizer and agro-chemicals from the government and public extension services, which are often found to be struggling with their finances. Contract Farming firms provides the smallholder access to these technologies and extension services. Besides they also help farmers to gain access to credit, which is one of the most frequently given reason for smallholders to become a contract farmer.

1.4.2.4 Foreign aid agencies

Contract Farming is attractive to foreign aid agencies for many of the same reasons that it appeals to national governments. It provides a regulated system for channeling large amounts of money straight to smallholders; it provides for the transfer of technology; and it involves different sectors. Many donors, particularly in Africa, have been found to prefer private sector involvement for achieving their credit disbursement targets. The other motive is profit; CDC and the World Bank have pioneered some very successful smallholder schemes. In fact, many of these aid projects are commercial projects with a smallholder component to make them politically acceptable and able to qualify for funding. Morvaridi (1990) has found that a major problem with Contract Farming is that different partners in the projects may have different objectives and these are often not clarified.

1.4.3 Constitution of the Contract

There are three observations that it is useful to bear in mind while studying the constitution of contracts. The first is that the contract is the means by which risk is distributed between the farmer and the contractor. The second is that the contract is a “representation of a relationship rather than the relationship itself” (White, 1997) and related to this, the constitution and administration of a contract is highly dependent on the political and economic environment in which it is embedded. Contracts can be thought of as varying in intensity between those that pay the market price on delivery and those in which every detail, including the production process and price, is fixed.
(Glover and Kusterer, 1990). The division of value added between the grower and the contractor is determined by the policy objectives of the scheme (whether purely commercial or not); crop characteristics and the dependencies these create; the economic strength of the contractor and farmer; and the alternative markets available to them.

1.5. Evolution of Contract Farming in India

The Indian production system, which has started making transition towards greater international integration and openness since late 1980s, witnessed many fundamental changes since then. The ever deepening internationalization of capital, coupled with implementation of many of the GATT provisions, has instituted deep-seated restructuring in the agriculture system. It is important to recognize that this restructuring of the agriculture production sector is taking place due to policy and market changes outside this sector, i.e., in the finance and trade sectors. Moreover, these macro-policy changes have been driving micro-changes such as agri-business and Contract Farming which are in turn revolutionizing the structure and relations of production in the Indian agriculture. This can be considered as a part of the internationalization process, which involves globalization of production, capital and trade. Contract Farming represents this process and encompasses all the three dimensions: intervention in input supply and production decisions, supply of capital and finance and global sourcing of agro-products.

Contract Farming in India dates back to 1988. Punjab with its developed agriculture, capital base and a great political clout in Indian politics took lead in the introduction of the Contract Farming. First project was a joint venture of Punjab Agro-Industries Corporation a para-statal body, Pepsi a US MNC and Voltas an Indian Corporate. This venture had the support of the farmer lobby (Bhartiya Kissan Union, BKU) or Indian Farmers Union and a farmer based party Akali Dal (Singh 2000). This venture was setup to procure and process certain fruits and vegetables of the state. By the early 1990s, it had got into the contract production and processing of tomatoes. The entry of Pepsi was followed by another local entrepreneur (Nijjer) who also set up tomato-processing plant with half the capacity of Pepsi’s plant. Nijjer got the financial support from the Punjab Financial Corporation. With establishment of the processing and procuring set up many more companies followed the suit. Hindustan lever Limited (HLL, a Unilever subsidiary) set up its processing unit and
entered into Contract Farming in 1995. With these companies taking lead in establishing the contracts, many more ventures both local and multinational started exploring the opportunities. Although Punjab took the lead in starting the new farming system, other states too took the conscious decision of allowing the Contract Farming by amending the Agriculture Produce Marketing Committees (APMC) rule, which said that entire farm produce has to kept with the Mandis. Most of the State Governments had formulated their own Acts in their legislatures to allow Contract Farming. This is in consonance with the recommendation of an Inter-Ministerial Task Force set up by the Union Agriculture Ministry to suggest reforms in the agricultural marketing sector. The Task Force in its May 2002 report suggested promotion of direct marketing and Contract Farming in the country by suitably amending the APMC Act.

With the thrust provided both at the central and state level Contract Farming has witnessed enthusiastic participation from the state governments and corporate sector. In fact, Punjab government has adopted the Contract Farming as a measure to diversify the cropping pattern and to break the wheat, paddy cycle which has created havoc with soil and water table. With the adoption of Contract Farming as the official policy, Punjab Agro Food Grains Corporation (PAFC) a wholly owned subsidiary of Punjab Agro Industrial Corporation (PAIC) has been assigned the task of implementing Contract Farming plan for various crops in the state. PAFC has adopted Multipartite Model and has implemented it on Multi-crop Multi-year basis. Agreements have been signed with different agencies to participate at different levels. Districts have been divided into areas which have been allocated to different extension agencies to undertake Contract Farming. Total area to be brought under Contract Farming during Kharif and Rabi 2003 was 3,00,000 acres and target was kept to increase the area to 25 lakh acres by 2007. In other regions also there have been efforts to introduce Contract Farming. Madhya Pradesh Government formed a joint venture with HLL to grow wheat on 250 acres in 2000. This area since has been increased to almost 15000 acres. In order to promote Contract Farming and greater integration of agriculture with industry Government of Tamil Nadu commissioned a project through ATO-DLO, Netherlands for identifying critical gaps in linkages between the farm and market in respect of 6 prominent fruits and vegetables of the State for setting up commercially viable value added centers for taking care of post harvest, grading, packing, cold storage and logistics. On the basis of
recommendations, government has extended various concessions like lower power tariff, capital subsidy, sales tax exemption, exemption from Pollution clearance charges etc to the firms undergoing contracts. Appachi Cotton Company (ACC), the ginning and trading house from Pollachi (Coimbatore district of Tamil Nadu, India) encouraged farmers in the Nachipalayam village in Kinathukadavu block of Coimbatore to sow cotton seeds in their fields. Well in advance of the 2002 kharif sowing season, ACC undertook the task of integrating about 600 farmers belonging to various districts of Tamil Nadu on a holistic plank. Another company named Ugar Sugar Works has established a malt unit and started contract framing in the Ugar (Belgaum) with farmers for providing barley in 1997 (Spice, 2003).

Several Indian and Multinational companies have started Contract Farming, besides national and different state governments are actively promoting Contract Farming system. The dynamics related to Contract Farming in all aspects in Indian scenario has not been researched widely and studies evaluating Contract Farming as an instrument of development measure has not been attempted yet.

1.5.1 Contract Farming Studies in India

There have been few important studies in India covering various aspects of the Contract Farming. Most of the studies however have been done keeping in mind the small farmers (Dev and Rao, 2005; Dileep et.al., 2003; Singh, 2000, 2002, 2004; Singh and Asokan, 2005; Rangi and Siddhu, 2000; Kumar, 2005). Almost all the studies came to the same conclusion that participation of small farmers was nil or almost negligible. In some of the schemes helping the small farmers was one of the avowed objective, but under the overriding concerns of making the schemes profitable small farmers were amiss. Yet, the study carried out by Birthal et.al. (2005) on the contract milk suppliers found that small farmers were represented in adequate numbers and were benefiting more by operating under contract production. Economic analysis carried out in some of these studies highlighted benefits accruing to the contract farmers. Higher yield and increase in return were reported in many of the Contract Farming schemes although with higher input costs (Birthal et. al., 2005; Dev and Rao, 2005; Dileep et.al., 2002; Kumar 2005). The main benefits received by the contract farmers were increase in yield and reduction of price uncertainty. The main problems however faced by the contract farmers were biased contracts, unclear details of the contract, rejection of the crops without sufficient explanations and delayed payments. Some of the studies done by authors have covered wide areas other than
the cost and benefit analysis of the Contract Farming Schemes. For example Singh has conducted some of the pioneering studies covering aspects like; gender and child labour (2003), evolving models of Contract Farming schemes, sustainability of the Contract Farming ventures, relations between state policies promotion of agribusiness through Contract Farming. He has dealt Contract Farming with a ‘political economy’ approach and has presented a highly critical view of such schemes.

1.6 Emerging Issues

From the review of literature some important issues have come up, which needs further consideration.

- The literature highlights the idea of Contract Farming as an institution, which can work for creating dynamic partnerships between private capital and farmers which can lead to technology transfer, innovation and market growth. However, on the negative side, the unequal relationship between farmer and private firm can also serve as a mode of capitalist penetration in agriculture and exploitation of farmers (Benziger, 1996; Glover, 1984, 1987; Glover and Kusterer, 1990; Goldsmith, 1985; Rehber, 2000).

- The literature also debates whether Contract Farming can provide an opportunity for smallholders to increase their income by acquiring new technology and entering market with minimal risk (Clapp, 1988; Dhaliwal et.al., 1998; Friedmann, 1978; Goodman and Watts, 1994; Payer, 1980; Singh, 2002).

- The question whether Contract Farming has reinforced the ongoing process of social differentiation is also posed by literature (Bulow and Sorensen, 1993; Collins, 1993; Carney, 1988; Porter and Phillips-Howard, 1994).

- Literature has highlighted that participation of the state brings substantial changes both in the objective for which Contract Farming is undertaken and nature of functioning of Contract Farming schemes (Glover, 1984, 1987; Glover and Kusterer, 1990).

- An important point debated is, whether growers, particularly smaller ones, are locked in the credit system or have the choice to opt out of the Contract Farming process if they so wish (Clapp, 1988; Friedmann, 1978; Watts, 1992).

- The literature also highlights the dynamics related to the selection of the areas for Contract Farming. It is observed that areas that already have some base
advantage both in terms of agro-climatic suitability and infrastructure facilities get opted in the process of Contract Farming and in turn get benefits of extension advice, credit etc. which further helps in increasing the already existing micro-regional disparities (Little and Watts, 1994; Raynolds, 2002; Ramamurthy, 2000).

- The importance of nature of contract commodity and their emerging linkages with the agro-processing firms in determining the production relations under contract has also been highlighted in the literature (Baumann, 2000; Benzigger, 1996; Glover, 1987; Glover and Kusterer, 1990; Gordon, 2001).

- The available literature portrays role of Contract Farming in exacerbating tensions in gender relations and further widening of ownership of resources as well as decisions regarding use of resources by men and women (Raynolds, 2002; Ramamurthy, 2000; Singh, 2001; Young, 1993).

- Another issue emerging from the literature on Contract Farming relates with the apprehensions of environmental damage caused by it in the areas in which it is practiced (Morvaridi, 1995).

1.7 Study Area

Land of five rivers as popularly known in the past, Punjab is situated in the northwestern part of the country. It is bound on the west by Pakistan, on north by Jammu and Kashmir, on north-east by Himachal Pradesh and on south by Haryana and Rajasthan. With an area of 50,362 sq km. it is divided into 17 districts for administrative purpose. It is part of the fertile Indo-Ganga plain and richly endowed with the alluvial soil. Two climatic types, humid sub-tropical with dry winters (Caw) and sub-tropical steppe (BSh)(according to Koppen’s classification) prevail in this region. Rainfall decreases to the south-west and it varies from 95.0 cm near the Shiwalik range to 33.0 cm in the south-west. continentality is characterized not only by low rainfall but also by high annual range of temperature. Agriculture is the mainstay of Punjab’s economy. Nearly 86 percent of the total geographical area of the state is under cultivation. Punjab alone contributed 51 percent of rice and 51 percent of the wheat to the central pool in 2001-02 marketing year, despite the fact that it comprises only 1.53 percent of the total area of the country (Economic Survey, 2003-2004). Besides wheat and rice, other main crops are maize, gram and pulses. Mushrooms, honey, chilies, potato chips and tomato paste are exported from Punjab.
Punjab agriculture has been known for its Green Revolution of the late 1960s and 1970s and overall agricultural development. But during 1980s the Green Revolution momentum could not be sustained. The number of operational holdings in 1980-81 declined as compared to those in 1970-71, especially in marginal and small categories, due to the phenomenon of ‘reverse tenancy’ under which small and marginal farmers leased out land to medium and large farmers (Singh, 2002). There was stagnation in yields accompanied by increasing cost of cultivation (Nadkarni, 1988). The Proportion of agricultural labour in the total rural male workers went up by 2.2 percent and that of cultivators down by 2.7 percent during 1980s. The jobs generated in the non-farm sector were only 19 percent of the ones lost in the farm sector (Ghuman, 2001). Punjab ended up growing largely wheat and rice (71 percent of the gross cropped area) and food grain crops accounted for 75 percent of the total cropped area (Chand, 1999). The high degree of mechanization led to the problem of rural unemployment. The intensive production led not only to monocultures but also to higher incidence of pests and disease which, in turn, led to the ecological problems decline in water table, water logging, soil salinity, toxicity and micro-nutrient deficiency (Sidhu & Johl, 2001).

The Johl Committee report on diversification of Punjab agriculture(1986) recommended that at least 20 percent of the area under wheat and paddy should be brought under new crops especially fruits and vegetables which accounted for only 2 percent of the gross cropped area at that time. Diversification should be intended not only to protect environment but also to stabilize incomes and employment in the farming sector. In order to achieve the said objective of diversification Punjab government introduced several measures including Contract Farming. Being one of the most agriculturally developed state and pioneers in introducing Contract Farming system, Punjab befits as the case of a good study area. Besides, Punjab government has been providing whole-hearted support for the success of Contract Farming, which makes a case for the study of developmental impact of a market based transition.

1.8 Objectives of the study and research Questions

Objective 1

To analyse the policy framework of Punjab government in promoting Contract Farming in particular and public private partnership in general.
Research Questions
1. What kind of balance has the Government achieved in providing incentives to the private sector on one hand and farmers on the other?
2. What is the role played by government authority (PAFC) in protecting the interests of the farmers?

Objective 2
To examine the motivation and strategy adopted by private firms while participating in the public-private mode of Contract Farming.

Research Questions
1. What are the criteria adopted by the Contracting firms for selecting villages and farmers?
2. Whether the basic functional elements of the contracts in the emerging private-public model achieve risk sharing (production and price) with farmers?

Objective 3
To assess the impact of Contract Farming at the household level in terms of crop-mix, productivity and environmental sustenance.

Research Questions
1. What are the characteristics of the farmers who join Contract Farming?
2. Whether the process of Contract Farming has been successful in bringing about technological innovations at the household level.
3. Whether Contract Farming has led to practices that promote sustenance in irrigation water consumption.

Objective 4
To identify the broad locational factors influencing adoption of Contract Farming system at the village level.

Research Question
Are general locational factors like infrastructure more important than farmer characteristics like farm-size and general awareness in initiating the process of Contract Farming?
**1.9 Data Base**

Data has been collected from multiple sources; some data has been collected from secondary sources and some data from primary filed survey.

**Primary survey**

Primary Survey at the household levels has been undertaken. Discussions and interviews have been held with key persons in the firms involved in Contract Farming. Interviews and discussions were held with PAFC officials to understand the policy formulation with regard to Contract Farming.

**Secondary Sources**

1. Reports of Punjab Agro Foods Corporation details of reports necessary.

**1.10 Framework of Analysis and Sampling Design**

Jalandhar district has been chosen as the base for drawing primary data-base for the study on the basis of the criterion that it has the maximum percentage of Contract Farming area to gross cropped area.

To study the objective-1 reports and documents of PAFC and other government bodies have been analysed. Interviews and discussions were conducted with the officials of PAFC to understand the regulatory framework of Contract Farming. To study the objective-2, village level analysis has been done in the Jalandhar district. The selection criterion for villages, i.e. whether Contract Farming is being practiced in the village or not, has been provided by the Punjab Agro Foodgrains Corporation. One of the limitations of such a sampling frame is that it does not include villages where private firms are practicing Contract Farming without official knowledge of PAFC. Village level data has been collected both from the secondary and primary sources. Information about variables like the existence of Contract Farming in the respective villages (for all villages), and percentage of contract farmers to main cultivators, cropping pattern, Contract Farming crops (only for the Contract Farming villages) have been collected from the PAFC and District Revenue Department of Jalandhar. Questionnaire based interviews were conducted with the officials of the firms to understand the modus operandi of Contract Farming operations.
For the other objectives household level analysis has been done for the villages selected on the basis of sampling. Contract farmers’ data provided by PAFC for the year 2004 has formed the basis of the selection of the block. The year 2004 is the latest year for which complete data set was available with PAFC. Villages were selected on the basis of percentage of main cultivators in the village practicing Contract Farming. Attempt was made to identify spatial clusters of villages to capture diverse processes of Contract Farming mechanism. Proximity of the villages was also considered while identifying the clusters to facilitate sampling and ensure comparability across villages. Two clusters (cluster-1 and cluster-2) were identified for the study- one with low concentration of Contract Farmers and other with high concentration. cluster-1 with 8.68 percent of Contract Farmers was taken as the low concentration cluster, while cluster-2 with 11.03 percent of contract farmers was taken as a high concentration cluster. Field Survey was undertaken in 2006 and the reference period covers kharif, rabi and zaid seasons of the agricultural year 2005-2006. The sampling design for selection of villages have been provided below (Figure1.1).Within the selected villages, a census was carried out for contract farmers, due to their small numbers. Same number of non-contract farmers were selected randomly as control sample ensuring similar farm-size distribution as the contract farmers category. The survey included only those farmers who were practicing Contract Farming during the survey i.e.130 contract farmers and a corresponding number of non-contract farmers.

Detailed methodology and variables for the different objectives is given below.

**Objective 1**

To analyse the policy framework of Punjab government in promoting Contract Farming.

**Methodology**

A multi-pronged methodology has been adopted to analyse various issues. Secondary data collected from various Punjab Agro Foodgrains Corporation (PAFC) reports have been analysed using simple statistical techniques. Further, reports of the PAFC have been studied, and non-directed interviews have been conducted with various PAFC officials to understand the policies formulated to regulate and guide Contract Farming in the state.
Objective 2

To examine the motivation and strategy adopted by private firms while participating in the public-private mode of Contract Farming.

Methodology

This objective has been studied through questionnaire, which has dealt with, the selection criteria adopted by the firms. Model of the Contract Farming adopted by different firms, terms and conditions of the contract, degree of conformity between contracts and actual transactions, technology used in the field, price differentials between contract transactions and wholesale markets and other risk and benefits.

Objective 3

To assess the impact of Contract Farming at the household level in terms of crop-mix, productivity and environmental sustenance.

Methodology

Questionnaire based survey at the household level in the sample villages. Review of terms and conditions of contract and actual practice of it to know who exercise control in Contract Farming system. Indices and indicators that will be used for measurement are Socio-economic base and political status has been surveyed to build the profiles of the farmers who are participating in the Contract Farming schemes.

Variables

Economic- Asset base, size of operational land holding, income from sources other than farm income etc.

Social - Caste status, education status, number of family members etc.

Political- Member of the panchayat or any other political institution etc.

Profiles of the farmers according to the crop and kind of contracting firm has been prepared to know whether these criteria make any difference in the selection of farmers. The study has tried to relate grower's social, economic and/or political characteristics favored by the firms thereby identifying the stratum/strata of the existing socio-economic and political hierarchy that is marginalized/not preferred by the contracting firms. By identifying these factors study has sought to analyse the exclusionary or inclusionary nature of the Contract Farming and hence its implication as a development strategy.
Diversification of cropping pattern- Herfindahl Index has been calculated from the data collected from patwaris and primary survey in the sampling village.

Disparity between contract farmers and non-contract farmers in terms operational land holding, asset base, productivity in terms of net returns per unit of acre and input etc. has been measured through Gini coefficient and Lorenz curve.

To measure the risks, benefits and institutional changes in the Contract Farming areas following variables has been used.

**Risk-1** Conditions that apply in the case of non-conformity with respect to quality/crop failure.

- Percentage of farmers suffering loss in same crop.

**Benefits**- Income, Credit, Input, Technology, and Market (assured selling prices)

**Objective 4**

To identify the broad locational factors influencing adoption of Contract Farming system.

**Methodology**

To study the infrastructural and natural resource base of the village adopted in the Contract Farming system variables which will be used are

- Infrastructure (Transport, Bank and Agricultural Credit Society)
- Communication (Telephone Density, Availability of Newspaper and Magazine)
- Irrigation (particularly quality: dry season orientation, coverage of tubewell irrigation)
- Nearness to urban area (proxy for access to market)

District level and Block level analysis from the data collected for the villages have been done for detail of Contract Farming (whether Contract Farming village or not, percentage of cultivators adopting Contract Farming, cropping pattern, Contract Farming crops). A Logistic Regression Model has been built to know what locational factors have influenced adoption of Contract Farming in the area.
1.11 Sampling Scheme

Since Contract Farming had been adopted as an official by the Punjab government, all of the districts have been implementing it. The selection of the district, block, village and farmers will be made according to the following method.

Table 1.1 Sampling Design

<table>
<thead>
<tr>
<th>Sample Level</th>
<th>Criteria Of selection</th>
<th>Level of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. District</td>
<td>Percent of gross cropped area under Contract Farming</td>
<td>District level (Jalandhar)</td>
</tr>
<tr>
<td>2. Block</td>
<td>Percentage of Main Cultivators doing Contract Farming</td>
<td>Village level Data,</td>
</tr>
<tr>
<td>3. Village and Clusters</td>
<td>Percentage of Main Cultivators doing Contract Farming. Two clusters (cluster-1 and cluster-2) were identified for the study: one with low concentration of Contract Farmers and other with high concentration. Cluster-1 with 8.68 percent of Contract Farmers was taken as the low concentration cluster, while cluster-2 with 11.03 percent of contract farmers was taken as a high concentration cluster.</td>
<td>Household level data</td>
</tr>
<tr>
<td>4. Farmer</td>
<td>Strata: 1. Contract Farming and non-Contract Farming, 2. Size of land holding, a) Small, b) Medium, c) Big. Farmers selected in proportionate numbers at each strata.</td>
<td>Household level data</td>
</tr>
</tbody>
</table>
1.12 Design of the Study

The study has been organized in the following manner. First chapter introduces the theme of the study, relevance and objective of the study, theoretical perspectives and the concept of Contract Farming survey of literature, information on the basis of data, methodology and limitations of the study.

Second chapter deals with the evolution of the Contract Farming model in Punjab and various instruments devised by the government agency to regulate the Contract Farming in Punjab.

Third Chapter deals with the emerging theme of agro-industrialisation and agri-business that has come to dominate the theme of policy making in food chain. Contract Farming which is a consequence of this thinking and the processes adopted by the Contract Farming to expand their business operations.
Fourth chapter analyses the socio-economic and political factors influencing selection of farmers for Contract Farming. It also deals with the nature of changes brought about by Contract Farming and the level of disparity between contracting and non contracting farmers.

Fifth chapter deals with the spatial spread of Contract Farming and tries to identify the broad locational factors influencing adoption of Contract Farming system in the villages.

Final Conclusion chapter focuses on the major findings and major issues emerging out of the study. An attempt is also made to discuss developmental impact and policy implications of Contract Farming.