



## PRESENT STATUS AND PROSPECTS OF CONTRACT FARMING IN INDIA

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**Abstract-** The establishment of an agrarian economy that ensures food and nutritional security for a population of over a billion, raw material for an expanding industrial base, surpluses for exports, and a fair and equitable reward system for the farming community requires commitment driven contract farming which clearly is a viable alternative farming model. Previous literature reveals that several Indian and multinational companies have already begun contract farming initiatives in India and have been broadly successful. We find that their success is dependent on a profitable market, the physical and social environment, and government support. However, effort is needed to reduce negative impacts which arise from contract farming via the active involvement of institutions governing the contract farming business. The overall future of contract farming in India is quite promising due to increasing trend for organised retailing amongst the burgeoning middle class population and the food safety requirements of the export market in developed countries.

**Keywords-** Positive and negative impacts, agribusiness firms, contract farming in India.

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### Introduction

India has been a predominantly agrarian economy since the first human settlements on the subcontinent. While development efforts over the last four decades have doubtlessly strengthened India's industrial base, agriculture continues to be a significant pillar of the economy, contributing nearly 14 percent to GDP and representing approximately 11 percent of India's national exports [1]. Liberalization, privatization and globalization of the post WTO regime have created new market opportunities and challenges. The agriculture sector, like any other sector of the economy, must evolve a response mechanism to face these new realities. This requires reforms in agricultural marketing in order to bring about the requisite changes and to push the agriculture sector to take-off from its current low growth rate of 2-3 per cent to a healthier 4-5 per cent. Wide support for contract farming under the Structural Adjustment Programme (SAP) and liberalization policies and its promotion by the international development agencies such as the World Bank, the USAID, the IFC and the CDC has further supported the development of contract farming in India, which in turn helps reform agriculture marketing practices indeed.

The first known evidence of contract farming in India dates back to the British colonisation; The East India Company had contractual farming arrangements in the coffee and tea estates. As such, the concept of contract farming is not new to India but there are new forms and models of contractual arrangements which have prevailed post independence [2]. The total area covered by contract farming is less than 2 percent of the total cultivable land. However, if one were to consider purely corporate contracts with farmers for their crops, then this figure would barely touch 0.05 percent of total cultivable land. Contract farming in India is changing towards this corporate contract model as reflected by the entry of many Multinationals such as, Cadbury, Pepsi, Unilever, ITC Ltd., Cargill and Frito Lay. Similarly domestic corporations like Ballarpur Industries Limited(BILT), JK Paper, and Wmco, Green Agro Pack (GAP) Ltd., VST Natural Products, Global Green, Intergarden India, Kemps City Agro Exports and Sterling Agro, United Breweries (UB) , Nijjer Agro, Tarai Foods, A I M Todd, McCain India are also entering into contract farming [3-5].

Given the current background, this paper primarily hopes to address the importance of contract farming and its impact on Indian agriculture using the available contract farming literature. The remainder of the paper is presented through five distinct sections: (1.) the concept of contract farming, (2.) contract models in India, (3.) the incentives of contract farming for the corporation and the farmer (4.) the positive and negative impacts of contract farming, and finally (5.) the future prospects of contract farming in India along with concluding remarks.

### The Concept of Contract Farming

Contract farming is a transaction wherein agribusiness and farms are vertically integrated. Baumann (2000) [6] defined contract farming as a system where a central processing or exporting unit purchases the harvests of independent farmers and the terms of purchase are arranged in advance through contracts. Contract farming involves different institutions like processing firms, financial institutions, input providing companies, and the farmers themselves.

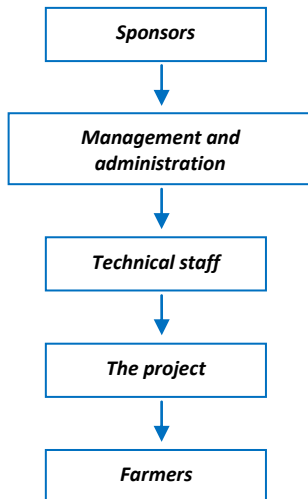
The details of a contractual arrangement vary according to the depth and complexity of the provisions in each of the following areas [5,7,8]. In general, contracts can be classified into three non- mutually exclusive categories: (i). *Market provision*, (ii). *Resource provision* (iii). *Management specification*. In the overall, the concept of contract farming promises i) to provide a proper linkage between the farm and market, ii) promote high degree of competition at the supply and market end, and iii) minimize intermediaries in order to increase farmer's income [9].

### Contract Models in India and Preconditions for their Success

Eaton and Shepherd (2001)[8] classified 5 major models in which contractual arrangements occur between the firm and farmers. A sponsor (defined as the contracting firm/corporation) decides to follow a model depending on the market demand, production and processing requirements, and economic and social viability of the farmers [5].

**I. Centralized Model:** In a centralized model, a sponsor (a processor/ packer)

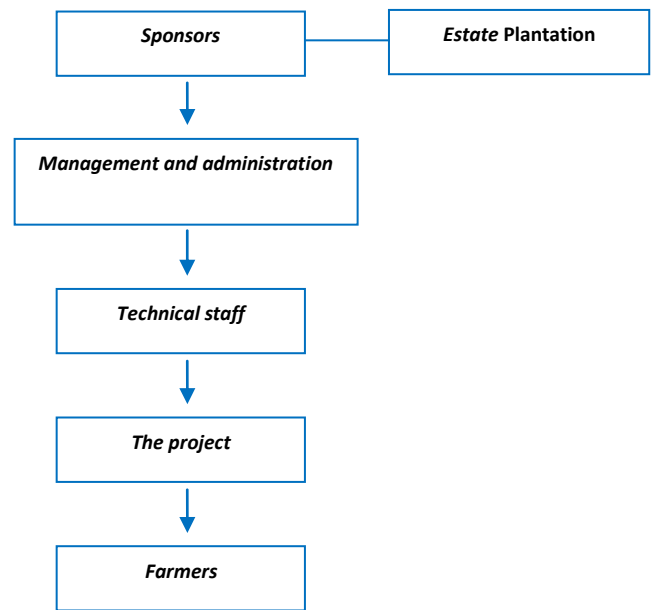
buys from large number of small farmers [Fig-1]. The quantity that will be bought is usually predetermined at the beginning of the sowing season and quality standards are strictly monitored and enforced [10]. The firm provides inputs such as seeds, fertilizers, pesticides, credit and machines, etc. This model was used for annual crops and crops which often require a high degree of processing. Centralized Model contracts are also found concerning products where market requirements necessitate frequent changes in the farm technology with fairly intensive farm-level support from the sponsors. Sponsors involvement in production varies from minimal input provision to the opposite extreme where the sponsor takes control of most of the production aspects such as tomato processing by PepsiCo in Punjab. It is same as the Type I contract farming in the contract farming classification given in a study by the National Institute of Agricultural Marketing [5].



**Fig-1 Centralized model**

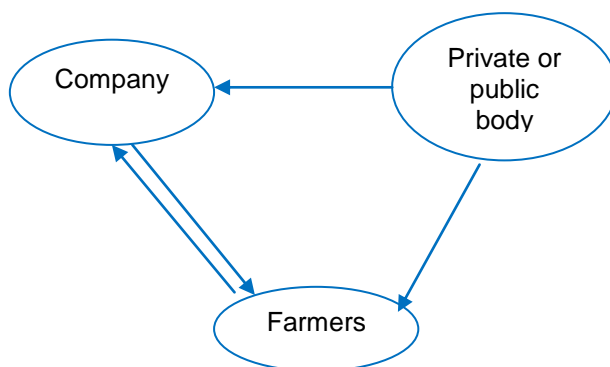
**II. Nucleus Estate Model:** Nucleus estate model [Fig-2] is a variation of the centralized model where the sponsor also manages a central estate or plantation. The central estate is usually used to guarantee throughput for the processing plant but sometimes the estate is used only for research or breeding purposes. The sponsor provides a significant amount of material and helps with the management inputs. This model is appropriate for crops such as tea, coffee, rubber, cocoa, sugar and oil palm, crops with which farmers may have had little or no experience.

These crops require significant long-term investment and generally require immediate processing after the harvest. Sometimes firm may also procure from farmers around the estate.

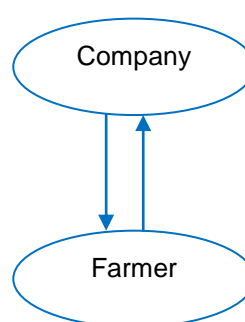


**Fig-2 Nucleus estate model**

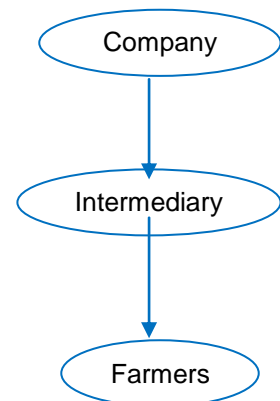
**III. Multi-partite Model:** The multipartite model may involve a variety of organizations, frequently including statutory bodies. Each entity may be responsible for providing different goods and services such as credit, inputs, machineries, equipments, transport, processing and marketing facilities [Fig-3]. The following is an example of multipartite contracts in India: a leading firm (Dabar) acquired a leasing arrangement of land from the government and entered into an agreement with the tribal communities to grow medicinal plants. A similar example is the firm, Rallis which organized production with farmers on contract basis [11]. The similar characters appear in the Type 4 classification of contract farming by NIAM, 2004.



**Fig-3 Multipartite model**



**Fig-4 Informal model**



**Fig-5 Intermediary model**

**IV. Intermediary Model:** The intermediary model involves sponsors in subcontracting linkages of farmers with intermediaries. Using this model, sponsors run the risk of losing control of production and quality as well as prices received by farmers [Fig-4]. If the processors/sponsors are not unduly bothered about quality and concerned only with quantity this model may work. The decision to appoint an

intermediary depends on the trade off in terms of cost and quality to the firm. An example of this model in practice can be seen in appointment of Rallies by The Hindustan Lever Limited for the procurement of wheat and paddy in Madhya Pradesh and Uttar Pradesh. The Type 3 and Type 4 model from NIAM, 2004 classification of contract farming is based on the same characteristics as

mentioned in this model.

**V. Informal Model:** The informal model is characterized by individual entrepreneurs or small companies. It involves informal production contracts, usually on a seasonal basis (Prasad, 2013)[12]. It often requires government support services in the form of research and extension. Informal contract arrangement can be found in crops that require minimal processing [Fig-5]. Usually these are sorted and graded before being put to market. As such, this arrangement is mostly found in fresh fruits and vegetables. Typically, the firm's involvement in actual production and input procurement is very minimal. Many supermarket chains in India usually follow this model to ensure a steady supply of produce.

Even with these several successful models on contract farming in India, there are a myriad of necessary preconditions needed in order to facilitate successful contracts between firms and farmers. And the preconditions like assured market and profitability, physical and social environment, adequate communication system, land, irrigation and input availability, social consideration of rural communities, and mutual trust between the firm and the farmer are noted for successful contract farming practices [8,11].

### Incentives Facing Agribusiness Firms and Farmers to Enter Contract Farming

Farmers and corporations have various motivations in joining contract farming agreements. Their motivations are typically not antagonistic and the incentives for contract farming are occasionally mutually beneficial for both the firm and the farmer. Below, we describe the incentives to enter contract farming from both the firm's and the farmer's perspective.

#### Agribusiness Firms

Contract farming is an attempt for large agribusiness firms to expand the scale of operation in order to improve profitability or to manage their risks through product diversification. The expected duties of a company are to provide some production support for the farmers through the supply of inputs or technical advice.

[13] describes the reasons why firms choose to contract growers rather than buying products from the spot market or engaging a policy of self-plantation. Simmons refers to [14] "Transaction Cost Theory" which suggests that without a pre-existing contract, firms who transact by seeking products on the open market, especially for high-value food products (HVF) encounter 3 possible kinds of uncertainties like *uncertain quality*, *uncertain supply*, *uncertain price*. Meanwhile, if agribusiness firms choose to operate their own plantation, they find that the transaction costs like high cost of supervision, uncertainty over crop yield, technical constraints, high land acquisition cost and high skill acquisition cost outweigh the benefits of predictable supply. Therefore contract farming schemes would be adopted by the firm.

#### Farmers

Farmers joining a contract farming scheme are responsible to provide a specific

commodity in quantities and at agreed quality standards to the company. Four main benefits encouraging smallholder to enter the schemes are; [13]: (i) *Access to markets*: Agribusinesses are considered being more specialized than farmers in terms of market knowledge, information links, legal expertise, economies to size in processing and transport, financial potentials, and relationship with the international markets. These advantages are far too costly for the farmers to do themselves; (ii) *Access to credit*: many farmers with credit constraint can be supported with financial assistance from potential agribusiness firms. The repayment is usually through post-harvest cash settlement; (iii) *Managing risks*: Opportunities for reducing risk through contracting include diversification of farming, subsidies and extension services from the firm. (iv) *Provision of information*: Contracted farmers could receive advantageous information such as crop specific information, chemical restrictions related to food safety requirements in specific markets, timing of planting and harvest to meet markets, management of product quality, and other market and technical information. If these benefits are significantly larger than the following costs or risks which farmers would usually encounter (both in short-run and long-run), those farmers will decide to participate in contract farming schemes.

### Positive and Negative Impacts of Contract Farming

As depicted in the [Table-1], the proponents of contract farming argue that contract farming can lead to significant increases in incomes and employment in poor agricultural regions and can eliminate low levels of productivity and instability in production. The benefits of contract farming can thus put the local economy on the path of growth and development. Below we point out the positive and negative impacts of contract farming.

#### The Future Prospects of Contract Farming

The future of contract farming in India is quite promising, thanks to the increasing awareness about food quality and safety among the rising middle class population coupled with rising domestic disposable income and the stringent food safety requirements of the export market of the developed countries. As the Indian economy grows, there will be an increase in the number of people with high disposable income and consciousness about quality and health who will demand food products of certain specifications.

Further, developed countries prescribe exacting standards of quality for imports of agricultural commodities and processed food from developing countries. The WTO agreements on Sanitary and Phytosanitary (SPS) measures are in accordance with food safety and food standards set by the Codex Alimentarius Commission (CAC). An important component of the CAC guidelines is the implementation of a food safety system called Hazard Analysis and Critical Control Points (HACCP). This needs to be incorporated in the food quality system of the food processing units; otherwise the SPS agreement can act as a non-tariff barrier for exports. Contract farming enables firms to have control over production of agricultural commodities at various stages of growth, thus making it possible to meet such standards of food safety [11].

**Table-1 Positive and negative Impacts of contract farming**

Positive Impacts	Negative Impacts
Contract farming increases the income of participating farmers due to improved access to market, better use of resources and better management of technology.	Simmons (2003) agribusinesses corporations mostly prefer to deal the contracts with large farmer groups because they have lower average costs and are more reliable suppliers in terms of quality and quantity
Contract farming benefits rural employment by providing additional employment opportunities through processing.	Most contract farming schemes occur only in the regions where, commercial agriculture is already established and offering reliable infrastructure and access to markets.
Contract farming helps in improving farmer's production through the provision of appropriate technology and through the creation of structured, efficient farming operations.	Due to <i>unequal power</i> in terms of bargaining, negotiating, or contract enforcement contracts between agribusiness firms and farmers tend to be unfair and lead to exploitation,
Agribusiness firms enable the farmers to reduce their price risk through predetermined prices, production risk through provision of technology, extension services and diversification of farm activities.	Some times contract farming may act as catalyst for gender conflict within the household due to the condition that the agreement is usually through man though women do the bulk of the farm work.

Contract production tends to shift farm production in favor of export-oriented and cash crops at the cost of basic food crops for the poor. This can lead to higher prices of the food commodities and products, especially for non contract farmers and the labor households who do not benefit from higher incomes attained by contract farming. Even regional differentiation tends to increase as the firms choose relatively better-off areas for implementing contract farming schemes [15, 16].

### Conclusions

Contract farming is no doubt a viable alternative farming model in India, which can provide assured and reliable input services to the farmers and desired farm produce to the contracting firms. Several Indian and multinational companies have already begun such initiatives in India and have demonstrated repeated success. The successful cases of contract farming should provide a blueprint for further expansion of contract farming in order to increase the quality of agricultural produce as well as to increase the incomes of rural farm communities. It is important to note that the success of contract farming depends on a profitable market, the physical and social environment and government support. The contracting firms must consider physical infrastructure, telecommunications infrastructure, land availability and tenure, input availability, and social considerations.

An implication from the pre-existing literature suggests that contract farming has both positive and negative aspects but benefits outweigh the negative effects which can be addressed through the involvement of institutions related to the governance of the contract farming business. However, in the present context, contract farming is clearly a win-win situation for both the companies and the farmers. The future of contract farming in India is quite promising due to increasing consciousness about food safety and quality among the rising middle class population and the quality demands of the export market in the developed countries.

**Conflict of Interest: None declared**

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