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**ABSTRACT**

**CONTRACT FARMING IN INDIA: A STUDY  
ABOUT GROWTH OF AGRI-INPUT**

# Contract Farming In India: A Study about Growth of Agri-Input

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## INTRODUCTION

With the liberalization and globalization of sustenance and fiber markets in the advancing scene incorporating India, there is restored corporate business premium in agribusiness as corporate association in nourishment processing, agro-fares and retailing as it is seen as an unattended sector by those with capital and technological and managerial resources. With the steady withdrawal of the state from agricultural markets (because of the Amendment of the Agricultural Produce Marketing Committee (APMC) Act in 2003 in India under which now private markets might be set up, and contract farming (hence CF) with and immediate buy from farmers are lawful) and accentuation on the role of private sector for carrying productivity and development to the sector, space is constantly furnished to corporate and multinational offices as opening up of procurement, wholesale exchange, and retailing. The instruments being permitted and pushed are CF, public private organizations, retailing and wholesaling. It is contended that the wellsprings of inconvenience in ranch sector are in the supply chains of the sector which might be enhanced by corporate contribution and ventures. In this policy environment and in the connection of low development of the homestead sector and commonness of farmer pain in huge parts of India, local corporates have made raids into the retail sector and in perishable produce CF in the most recent decade and numerous outside supermarket retailers (Metro, Wal-Mart, Tesco, Carrefour) have entered wholesale money & convey sector (allowed since 1997) as Foreign Direct Investment (FDI) in retail is still limited to 51% of the total value and, that too, in single brand retail just (allowed just since 2010). This confinement has kept the outside supermarkets at sound however the vast majority of them are available in wholesale and are setting up frameworks of procurement with the expectation that retail will be opened sooner than later. In this connection, this paper analyzes the role of CF and local supermarket retail network linkage in feasible agricultural change as far as danger (production and market) diminishment from a smallholder view so policy issues and suggestions could be deciphered. It audits the state of the symbolization in CF in India and looks at the level of smallholder association in CF.

## ISSUES

Small farmers with possessions of not exactly 2 hectares (from this point forward ha) represented 85.9% of all operational property in 2002/03, and 42% of the total growled range in India (table 1). Vast possessions (>4 ha) declined to just 6.4% by 2000/01 and represented 37% of the region. The normal holding size descended to 1.32 ha in 2000/01, with the normal size of minimal property being just 0.4 ha and that of small possessions 1.41 ha (Sharma, 2007). By 2003, the normal size of the holding further descended to 1.06 hectares (EPW, 2008). Of the total, 64% are minor (i.e. beneath one ha every) and 18% small holders (i.e.1-2 ha each). The small and the peripheral farmers are additionally a mass (more than half) of the country poor and the under fed (Agrawal, 2000; Singh, et al, 2002; Muller and Patel, 2004). In so far as a run of the mill farmer's access to land possession, particularly of small/ peripheral, is concerned, the area base of the minor landholders and the close landless family units has not enhanced much over the long run; under the most favorable conditions, the permeation of increases from area re-dissemination have halted at the center level of proletariat (Singh, et al, 2002). In this circumstance, if any component need to help agricultural development, it need to include and work with this mind-dominant part of farmers and laborers.

In 2000-01, small farmers helped 57% of total vegetable production, and 47% of total fruit production, which is higher than their allotment in the terrible trimmed region. As contrasted with others, small farmers dispense a bigger extent of their zone to horticultural crops. Indeed broadening alternative regarding change of product succession was practiced more by small holders than that by huge holders both in watered and non-flooded ranges (Singh, et al, 2002). In 2000-01 they allotted 5.7 % of their terrible trimmed range to horticultural crops, contrasted with 3.9 % by the substantial farmers (Birthal et al, 2008). Vegetables crops are the most favored crops on small farms, while fruits, sauces and flavors are favored on substantial farms. Explanations of this are accessibility of surplus labour and liquidity

requirement, and a great market price of vegetables (Shroff and Kajale, 2008).

Year Category	1953-54	1961-62	1971-72	1981-82	1991-92	2002-03
<b>Number of operational holdings by farmer category (%)</b>						
Marginal	39.1	45.8	55.5	62.8	69.7	70.0
Small	22.6	22.4	19.5	17.8	16.3	15.9
Med/Large	33.3	31.9	25.0	19.5	14.0	14.1
<b>Operational holdings area by farmer category (%)</b>						
Marginal	6.9	9.2	11.5	15.6	22.6	21.7
Small	12.3	14.8	16.6	18.7	20.9	20.3
Med/Large	80.8	76.0	71.9	65.7	56.5	57.9

**Table 1: Distributions of operational holdings and area by category in India**

Real issues of small and minor farmers in India incorporate spurious input supply, insufficient and exorbitant institutional credit, absence of watering system water and immoderate access to it, absence of amplification administrations for business crops, abuse in marketing of their produce, high health uses, and absence of elective (non-ranch) wellsprings of wage (Dev, 2005). Work which is the best way to raise farmers' and workers' earnings is low on these farms as a result of the low livelihood flexibility of yield because of expanding mechanization and the sort of crops developed (Muller and Patel, 2004). The issue is not that small farms are intrinsically unviable in today's marketplace as later studies demonstrate that for every hectare net profits are the highest for minimal and small possessions than that on whatever viable holding class (Chand, et al, 2011; Gaurav and Mishra 2011), however that they confront an inexorably tilted playing field for instance, prices smallholders appropriate for their yield are more level than those got by bigger farmers because of their feeble dealing power and holding limit (Agrawal, 2000). In wheat, negligible holders had the highest yield for every hectare contrasted and all different classifications in India in any case, they understood the least prices for every quintal.

The arguments in favor of small farms in a circumstance of extensive camouflaged unemployment are a lot of people. Small farms in such circumstances will maximize labour utilize and worth included, not benefit and will have higher yields for every unit of area, both of which are socially optimal given area lack and labour surplus. They likewise convey salary all the more uniformly, therefore expanding obtaining force of the populace which is must for industrialization. Small farms, when free of motivating force inconsistent frameworks like stake trimming, or instability of residency, can extraordinarily grow yield actually when they are not productive in a capitalist business sense. It was because of small farms that quick agricultural development happened in Korea, China, Japan and Taiwan, and even in West Bengal in India (Morris, 2007). The social and investment profits from smallholder centered intercessions could be gigantic (Hazel, 2005). Further, small producers have certain focused preferences like easier cost because of labour wealth, higher adaptability in their working ability, act as family and in

this manner, are more level cost, and have more than enough conventional learning which might be saddled for numerous sectors. The main dangers they face are: standardization of items in worldwide and national markets, and substantial volume prerequisites of advanced markets. At the same time, there are chances in natural, reasonable and moral exchange markets which are especially suited for small producers and offer high prices (Harper, 2009).

There are numerous policy and market instruments of danger decrease in India incorporating crop/weather protection against yield/production danger; state-supported apparatuses e.g. Least Support Price (MSP) for 24 crops, Market Intervention Scheme (MIS) for different crops, and Farmer Income Insurance Scheme (FIIS); market based establishments i.e. Fates markets and Warehouse receipt framework, moreover different instruments like enhancement of crops and utilization of danger diminishing inputs (Acharya, 2006). Yet, execution of MSP which incorporates procurement has been feeble with the exception of a couple of crops in a couple of locales and has regularly fizzled when farmers were most in necessity of it. The absence of access to protection and credit markets makes small producers powerless and they diminish their danger by picking low hazard exercises or advances which have low normal return. For instance, in semi-bone-dry districts of India, such self-protection produces 35% more level returns for the poor than assuming that they didn't have to self-guarantee (WB, 2007).

**THE THEORY OF CONTRACT FARMING**

Corporate agribusinesses, both residential and multinational, interface with smallholders through seed production and supply, other input supply, procurement of produce, and all the more specifically, help of production through CF. CF has additionally been utilized within numerous circumstances as a policy venture by the state to achieve crop enhancement for enhancing homestead earnings and vocation (Benziger 1996; Singh, 2002). CF is likewise seen as an approach to decrease expenses of growth as it can give access to better inputs and more productive production strategies. The expanding expense of growth was the explanation behind the development of CF in Japan and Spain in the 1950s (Asano-Tamanoi, 1988) and in the Indian Punjab in the unanticipated 1990s (Singh, 2002).

CF could be characterized as a framework for the production and supply of agricultural and horticultural produce by farmers/primary producers under development contracts, the being of such courses of action being a guarantee to give an agricultural thing of a sort (quality/variety), at a specified time, price, and in specified amount to a known purchaser. Actually, CF might be portrayed as a partially between autonomous homestead production and corporate/captive farming and could be an instance

of a stage towards complete vertical combination or breaking down hinging upon the given connection. Because of the productivity (co-appointment and quality control in a vertical framework) and value (smallholder consideration) profits of this crossover framework, it has been pushed forcefully in the advancing scene by different orgs (Glover, 1987). It essentially includes four things - prepared price, quality, amount or real estate (minimum/maximum) and time (Singh, 2002). It is for the most part attempted when there is market failure communicated in perishability of produce, nature of produce and details of handling a new/different item (Bijman, 2008).

The contracts could be of three sorts; (i) procurement contracts under which just deal and buy conditions are specified; (ii) partial contracts wherein just a portion of the inputs are supplied by the contracting firm and produce is purchased at prepared prices; and (iii) total contracts under which the contracting firm supplies and deals with all the inputs on the ranch and the farmer gets only a supplier of area and labour. The importance and essentialness of each one sort changes from item to item and over the long run and these sorts are not fundamentally unrelated (Hill and Ingersent, 1987; Key and Runsten, 1999; Bijman, 2008). Inasmuch as the first sort is for the most part alluded to as marketing contracts, the other two are sorts of production contracts (Scott, 1984; Welsh, 1997). At the same time, there is an efficient connection between item and component markets under the contract game plan as contracts require distinct nature of produce and, along these lines, particular inputs (Scott, 1984; Little, 1994). Additionally, distinctive sorts of production contracts dispense production and market chances between the producer and the processor in diverse ways. The price of the contracted produce might be growers' altered price, lingering (profit/loss) offering by supporter and cultivator, open market based price, spot market price, dispatch based, two part price, competition price (settled in addition to variable dependent upon relative execution), base price in addition to quality based motivator price, or managed price.

Some others recommend CF as the only way to make small scale farming competitive as the services provided by contracting agencies can not be provided by any other agencies (Eaton and Shepherd, 2001). CF is also an alternative to corporate farming which may be costly, risky, and difficult to manage and still not viable (Payer, 1980). Further, in India, supermarket chain growth including likely Foreign Direct Investment (FDI) in retail, international trade and quality issues like Sanitary and Phyto-Sanitary measures, organic trade, fair trade, and ethical trade, promotion of CF by the central and state agencies, banking and input industry push for CF, farming crisis and reverse tenancy, and failure of traditional cooperatives, will help spread of CF across crops and regions as they provide new space to this arrangement in the context of withdrawal

of state from agricultural space. Even new Intellectual Property Regime (IPR) which encourages protection and exploitation of proprietary genetics is likely to accelerate CF practice (Wolf et al, 2001). Further, under the new agricultural policy regime, public-private partnership is the main route being taken to bring about transformation in agriculture and the state is providing incentives to corporates to enter agribusiness sector, including through CF.

## **CF AND NATURAL RESOURCE DURABILITY**

Though it is known that CF has resulted in a transfer of responsibility for many production decisions from the individual farmer to the contracting company (Opondo, 2000), it is not yet understood that responsibility for environment impacts has also shifted (Rickson et al, 1993 in Eaton, 1998). If that is the case, then there is a clear case for ecological considerations in designing and monitoring CF. But, there is hardly any rigorous evidence on the environmental impacts of CF as the focus, most of the time, has been on its impact on small producer livelihoods in terms of removing poverty or risk in their activities (Minten et al, 2006).

CF influences the direction of ecological change through two actors. One, the contracting agency lays down the production schedule for the farmers at the farm level. By determining the crop to be grown and the husbandry practices the farmer has to follow, the contracting agency influences the impact CF will have on the environment. The government is the second actor as the main source of conservation measures i.e. advisory, financial and material. The farmers access to these measures is, to a large extent, is determined by the government policy. Thus, the contracting agency and the government have a larger role to play in environmental/ecological change than the farmer, since they occupy a „privileged“ position in the realm of decision making (Opondo, 2000).

The environmental implications of CF include monocultures leading to depletion of soil quality, and effect of fertilizers and pesticides on natural resources, environment, humans and animals (Opondo, 2000; Requier-Desjardins and Borray, 2004). The contracting firms tend to aggravate the environmental crisis as most of the contracts are short term (one or two crop cycles) and the firms tend to move on to new growers and lands after exhausting the natural potential of the local resources, particularly land and water, or when productivity declines due to some other reason (Morvaridi, 1995; Reynolds, 2000). The over-exploitation of groundwater, salivation of soils, decline in soil fertility, and pollution are examples of environmental degradation due to CF (Siddiqui, 1998; Rickson and Burch, 1996). The firms do not pay heed as the costs of such effects are externalized so far as

the firm is concerned. It is also argued that CF as part of the globalization process might lead to increasing investments in developing countries which have low environmental standards and, thus, the natural resource base might end up irreversibly depleted or damaged (Minten et al, 2006).

## PROCESS OF CF IN INDIA

There is a developing reason for CF in India because of the passage of wholesale money „n“ convey players and also domesticated sustenance retail networks moreover international nourishment quality and expense aggressiveness issues and new market fragments which need tailor made nourishment items. Additionally, in India, the saving money and agricultural input industry is likewise eyeing CF for leveraging it for better rustic market entrance. The alteration of the APMC Act has given a policy support to CF and this is progressively joined by declining role of statal and co-agent offices in agricultural markets.

In spite of the fact that CF is appropriating a push from numerous stakeholders, there are numerous variables like the APMC regulation in Gujarat and Haryana, enhancing open market effectiveness, Minimum Support Price (MSP) policy, corporate farming incorporating renting of badlands, and a mind-blowing vicinity and premium of Ngos in farming sector, which will go about as dampeners to the development and spread of CF. Then again, corporate farming can additionally work favorably if corporate organizations resort to renting of these grounds to contract cultivators or give contractual access to these terrains to small and minimal farmers and landless labour, as corporate farming is unrealistic to be reasonable. Indeed, corporate farming is a twofold edged weapon. It can help small farmers in better access to technology; however can likewise debilitate their dealing force with the organization (Glover, 1987).

Most investigations of the CF framework in India inspect the mass trading of the CF framework in particular crops, contrasted and that of the non-contract circumstance or contending accepted crops of a given district, e.g. in gherkins (mixture cucumber) in Tamilnadu (Chidambaram, 1997) and Andhra Pradesh (Haque, 2000; Dev and Rao, 2005; Swain, 2011), tomato and different vegetables in Punjab (Bhalla and Singh, 1996; Haque, 2000; Rangji and Sidhu, 2000; Singh, 2002; Dhaliwal et al, 2003) and Haryana (Dileep et. al., 2002), potato in Punjab, Gujarat and Haryana (Singh, 2008; Tripathi et al, 2005) and cotton in Tamilnadu (Agarwal et al, 2005). It is found that contract production gave much higher horrible and net returns contrasted and that from the conventional crops of wheat, paddy, and potato if there should be an occurrence of tomato, with a few special cases like peas in Punjab (Bhalla and Singh, 1996; Rangji and Sidhu, 2000; Dhaliwal et al, 2003), and tomato, and onion on account of gherkin in Tamilnadu (Chidambaram, 1997), and with those under non-contract circumstances (Haque, 2000; Dileep et. al,

2002; Agarwal et al, 2005; Tripathi et al, 2005; Swain, 2011). This was because of higher yield and guaranteed price under contracts. Anyway, in Punjab, aside from oilseed crops (hyola and sunflower), the net comes back from contract crops were discovered to be lower than what farmers might have got from the wheat crop (Dhaliwal et al, 2003). On the other hand, production expense was likewise higher (Dileep et. al, 2002; Kumar, 2006; Singh, 2008). Anyhow, on account of cotton in Tamilnadu, the contract producers had easier input expense, more level investment advances, quicker installment for produce than in non-contract circumstance, and had the yield protection office (Agarwal et al, 2005).

Defaults by farmers and in addition firms has been accounted for (Bhalla and Singh, 1996; Singh 2002; Haque, 2003; Singh, 2004). Despite the fact that CF in gherkin and icy mass lettuce product was smooth as there was no nearby market or quite thin market for the harvest, there was adaptability in contracts because of the brief time of the crops, and farmers upheld elective wellsprings of salary (Singh and Asokan, 2005; Khairnar and Yeleti, 2005). Anyhow, still, there was partial break of contracts in gherkins as the firm completed not secure according to contract in the event of 63% of contract farmers in Andhra Pradesh (Swain, 2011). This was so just in 30% cases if there should arise an occurrence of paddy seed.

The studies in the states of Punjab, Haryana and Andhra Pradesh uncover that contract cultivators confronted numerous issues like undue quality cut on produce by firms or on-procurement of produce, postponed conveyances at the manufacturing plant, deferred installments, low price, low quality inputs, and nuisance ambush on the contract crop which expedited harvest failure or raised the expense of production (Bhalla and Singh, 1996; Singh, 2002; Rangji and Sidhu, 2000; and Dileep et. al., 2002; Satish, 2003; Swain, 2011). The firms likewise controlled procurements of the contracts in practice, e.g. in the event of oven chickens in Tamilnadu, they grabbed flying creatures before due date or postponed it relying upon the interest which implied misfortunes for contract producers. They likewise postponed installments upto 60 days. However, producers were bolted into these contracts because of the firm particular altered speculations they had made (Singh and Asokan, 2005). Infact, oven CF can not by any stretch of the imagination be illustrative of the CF in horticulture as it is even more an instance of „putting out work or wage labour contracting“ as the contracting office gives all the inputs running from day old chicks to sustain and inoculation, and the contract producer simply furnishes labour for sustaining the feathered creatures and supervision where land prerequisite is not an enormous variable.

The contracting organizations, incorporating those contracting natural produce, and the new

nourishment retail networks give market price based prices to their contract or „contact“ farmers (Singh, 2009; Singh and Singla, 2011). The inquiry which ought to be asked is: Is it a reasonable practice, as in India, market prices vacillate so broadly? Assuming that market prices were productive, why did the fastens need to head off to cultivators? The greater part of the liberalization in the homestead sector incorporating nullification of the APMC Act in Bihar has been on the premise of the suspicion that APMC markets have acted monoposonistically and, in this manner, requirement to be carried out away with or made to rival different channels. Assuming that that was accurate, why may as well a purchaser do a reversal to the same Mandi to reveal procurement price? This is a genuine issue as even a noteworthy premium over market price may not help a farmer if open market prices go down essentially which is not unprecedented in perishable produce markets in India. Thus, the issue of what is fair price for the primary grower in a chain remains as there is little transparency in pricing and costing of operations. This kind of practice also compromises the market risk reduction role of CF.

### **CF AND NATURAL RESOURCES/ENVIRONMENT**

In India, irrigation system force of contract crops, i.e. tomato, potato and crisp, was more than that of wheat in Punjab throughout the late 1990s under Pepsi Foods (a Pepsico subsidiary) CF. Case in point, potato obliged 8-12 watering systems contrasted and just 5-6 for wheat and different crops. Pesticides and fertilizers were additionally utilized at much higher levels than in the universal crops. Potato development obliged 108 kg. of NPK (inorganic fertilizer) for every plot of land equal to 4840 square yards as against just 78 kg. for wheat and 60 kg. each of phosphorus and potassium for every plot of land equal to 4840 square yards. Tomato harvest obliged 60-90 kgs. of nitrogen, 60-100 kgs. of phosphorus, and 60-120 kgs. of potash for every plot of land equal to 4840 square yards hinging upon the nature of soil. Also, the chip potato product obliged 4-5 pesticide splashes and the seed potato edit 6-7 showers (Singh, 2002). This, notwithstanding the way that the organization (Pepsico) site states that it takes after a policy of "provision of environmentally sound agricultural practices with its suppliers of agromaterials (Aragon-Correa and Rubio-Lopez, 2007). Tomato edit under CF needed the same number as 14 spreads, which was significantly higher than that in cotton (Singh, 2002). This, in a circumstance where farmer consciousness of the negative impacts of pesticides on the environment, other than human and animal lives, particularly nourishment identified viewpoints, was quite low (Gandhi and Patel, 1997). As of late, the utilization of composts in contract cultivated gherkins and paddy seed has been

discovered to be quite high contrasted and that in non-contract crops (Swain, 2011).

All the more as of late, in Punjab, it was found that CF advertised by the commonplace government to empower enhancement of trimming example far from wheat and paddy prompted less water utilization on contract farms as against non-contract farms. The water utilization for paddy was 265.71 hours for every plot of land equal to 4840 square yards contrasted and just 183.86 hours for Basmati paddy advertised and developed under the CF plan. Likewise, maize under CF prompted water utilization of the request of just 18.35 hours for every plot of land equal to 4840 square yards. This implied that crops being developed under CF plan were water sparing. That was so because of the common government arrangement to push those crops. Generally, contract growers" weighted water utilization for every plot of land equal to 4840 square yards was 120.49 hours contrasted and 129.58 hours in the event of non-contract producers. Anyway, diminished water utilization on contract farms was because of more amazing zone dedicated to the new crops (Basmati and Maize) and not because of any new agricultural practices advertised by the contracting offices. Indeed, the contract farmers were drilling more escalated agribusiness than the non-contract farmers and were dedicating fundamentally higher number of water hours to basmati and maize than that by non-contract farmers over all crops. In this way, expanded commercialization of the different crops under CF impelled these contract farmers to utilize different inputs all the more seriously. Further, trim synthesis of potato and sunflower advertised under CF was more water serious, however more profitable than wheat (the elective accepted product) and subsequently, vanquished the exact motivation behind CF in the state (Singh, 2007). All the more as of late, an investigation of gherkin and paddy seed CF has found higher watering system power of the contract yield contrasted and non-contract crops (Swain, 2011).

### **CONCLUSIONS**

Despite the fact that there are worries about the capacity of the small farms to get by in the changing environment of agribusiness, still there are chances for them to adventure like in item separation with cause of item or natural items and other corner markets. At the same time, the significant track must be through abuse of different elements like outer economies of scale through systems administration or bunching and collusions like CF (Kirsten and Sartorius, 2002). For this, intermediation is needed for small farmers to connection them up with worldwide or national markets in processing and marketing (Lipton, 2002). This intermediation could be by a nearby private venture, household or multinational, a statal or para-statal association, or a

co-agent or farmer companionship, all of which could utilize CF as a component to work with small producers.

Marketing augmentation which incorporates better item arranging at farmer/group level, procurement of market data, securing markets and elective markets for farmers and enhancing marketing practice at farmer level regarding reviewing, sorting, bundling and essential processing is highly required and could hail from CF linkage. There is likewise need to correspond adequately with producers about the different profits of the CF linkage, not simply price. It could be lower expense of production, easier transaction cost or better nature of produce or different profits like resource preservation or brand fabricating in the market.

The knowledge of CF over the globe infers that it is not the contract in essence which is destructive as a framework however how it is practiced in a given setting. In the event that there are sufficient instruments like assembly contracts, producer companies/ associations, Ngos, and regulation of contracts, to screen and utilize the contracts for encouraging development of smallholders, it can surely prompt an advancement of every last one of gatherings included, particularly small and peripheral farmers. In the rising environment of „triple lowest part line“ of individuals, planet and benefits, corporate orgs necessity to incorporate the „people“ and „planet“ concerns into their procedures and movements with the goal that maintainability of both business and smallholders is achieved and sustained.

It is also important to recognize that there is so much diversity in the type of firms, farmers, crops, and nature of contracts besides the local socio-economic environment that it is better to focus on a specific situation of CF than the generic institution of CF. The context of CF is very important to understand to examine its usefulness as many actors and factors influence the working and outcomes of CF. Therefore, there is no single blueprint of CF suitable for all situations but a series of alternatives. Any assessment of CF should be done in terms of how it reduces contract growers' production and market risks and how it impacts on their resource base, compared with the alternatives.

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