Corporate Farming vis-a-vis Contract Farming in India: A Critical Perspective

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ABSTRACT

The hunky-dory of Indian economy notwithstanding, the agriculture sector has been lagging behind the GDP growth rate hovering around the region of 2%. Despite the Government's effort to protect the marginal farmers by providing them the 'right' price for their products, the suicide rate of the farmers has been shooting up. This indicates that all is not well in the Indian agriculture. In the recent times India has seen the growth of contract farming with companies directly getting into a contract with the farmers and providing them "fair" price to their produce. This is leading to corporate farming as a natural extension. A few initiatives have been taken in this regard with big corporate houses stepping in. The introduction of this type of farming and the involvement of the corporate might provide the much needed acceleration to the sector. The paper provides a critical analysis of the scenario of corporate farming and its economic viability in comparison with contract farming in India.

Key Words: Corporate Farming, Contract Farming, Fair Price, Indian Agriculture

Introduction

India, predominantly an agricultural economy, producing more than 250 million tons of food grain annually (PIB, 2012), has vast tracts of cultivable land spanning nearly 184 million hectares (MOFPI, 2012). Agriculture contributes to nearly quarter of our GDP, providing employment to nearly 60% of the population (Jha, 2006). Major part of the farmers engaged belongs to the small and marginal holding categories, with their share growing steadily over the years. Typically characterized by household labour, production for consumption, stock and sale in that order, these farms naturally achieve very low productivity

Value Chain

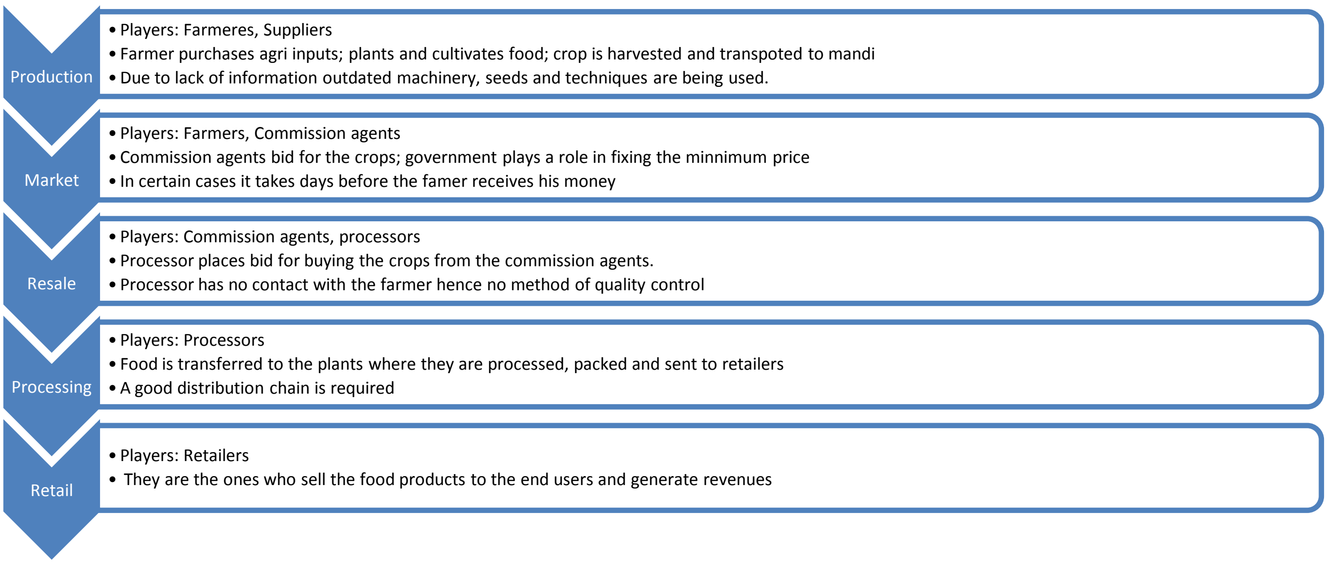


Figure: The process matrix showing the fairly linear phase of agriculture production, processing and reselling considering users, activities and details (Barth, et.al., 2006).

The stakeholders

The key players in the value web, from seed to sale, are as follows:

Suppliers: Supply of various inputs to the farmers is generally done by the government and other private corporations. While the former is known for its cheaper but less quality inputs, the latter provides good quality stocks but might arm twist the farmers.

Farmers: Though the farmer plays the central role, he is the least powerful in the value chain. In spite of government's aid and price protection, farmers are generally at the mercy of both suppliers and commission agents. Razor thin margins and use of outdated technologies make it difficult to make any sort of sustainable progress.

Commission Agent: The middle man between the farmers and the processors were originally instituted to ensure fair prices to the farmers and to save them from the processors. However, in recent times it has been the agents who have been taking advantage, often low balling the farmers and charging the processors a premium.

Processor: Buying the crops from the agents, they process, pack and ship the food from their processing plants. Traditionally barred any direct contact with the farmers, they consequently lack control over quality and have little influence over what crop the farmers grow.

Distributor: They are responsible for delivering the processed food to retail stores and city- based markets as well as small markets and bazaars in the rural areas.

Reseller: These ranges from large super markets in cities to small open air shops in the villages. Though organized retail chains are emerging, the small stores continue to dominate the retail market in India.

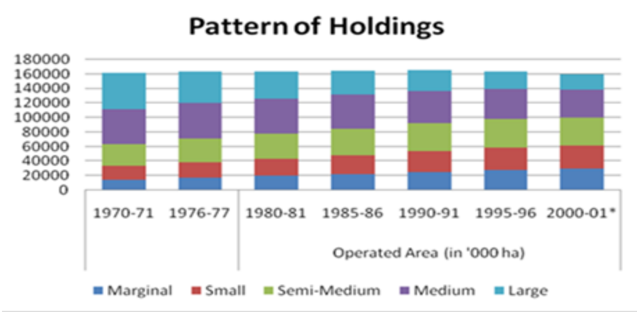
Government: The Indian government has several aid and subsidy programs in place to assist farmers, however many of them are expensive and actually result in excessive debt for farmers. Under the guidance of the NAFED, the government also enacted a number of strict policies aimed at protecting the farmer from exploitive organizations. However, these policies are now being repealed as they have proven detrimental. (Barth, et. al., 2006)

Bottle Necks for Indian Agriculture

The biggest issues being faced by the Indian agriculture sector are the low growth rate and the low productivity. Most of the Indian farmers are of "marginal" nature. They have illiterate, poor and have very small plots of land.

The objective of their farming is mostly to cater to the need of their family, stock for the future and then sell if surplus. They do not have exposure to the latest technologies and use the age old farming methods.

The quality of seeds used and the farm equipments are outdated and do not provide the desired productivity. The farmers do not have enough capital to buy the required farming equipments or arrange for the irrigation facilities. Most of these farmers depend on the undercover tenancy lands and hence can not go to the banks for loans. The



Data Source: *http://agcensus.nic.in/document/analysis01natasg.htm*

2000-01 Agriculture Census Data of India

local bankers charge them very high interest rates (above 25%). This renders them incapable of using the latest equipments or investing in good irrigation facilities. They have to depend solely on the government for all this.

Policies and reforms

The agriculture policy followed by the government after the independence can be broadly divided into three phases.

Parameter \ Policy:	Pre green revolution	Green revolution	Post green revolution
Time phase	1950s – mid 1960s	Mid 1960s – 1980	1980- present
Land holding pattern	Extremely skewed 8% of the farmers held 53% of the lands A large population was landbased poor	Not skewed Brought uncultivated land under cultivation Soil & water conservation through DPAP and DDP	Debate on land rules Transparency in land records through computerization
Thrust of the policy	Implementation of the land ceiling act Major irrigation project, abolition of landlordism, security of farming	Aimed at increase in yield Provided the farmers with research, marketing, input supply, credit, price support and technology	Increase in subsidies and support Decline in public sector spending in agri infra met by the farmers

Though the ceiling act solved the problem of "land based poor", it created a number of small farmers with small holdings of land and these farmers had too little resources to implement various technologies required to increase the productivity. India faced severe food crisis in spite of the active government support as productivity remained very low and It was the green revolution initiated by the then Prime Minister Lal Bahadur Shastri which aimed at increasing the yield. It was a form of contract farming providing the farmers with the necessary technology, credit, supplies and price support. This phase saw the agricultural yield of the country shooting up greatly.

The post green revolution, our industrial policy headed steadily towards de licensing and deregulation, while our agricultural policy lacked a specific direction in terms of the policy implementation. From the government, though there was a considerable increase agricultural support and subsidy expenses, the spending on agricultural infrastructure decreased greatly. An increase in the investments by the farmers during the same time compensated this decrease infrastructural spending. The market driven growth was largely characterized by the farmers diversifying in non food grain output like milk, fishery, poultry, vegetables, fruits etc.

National Agricultural Policy (NAP)

The National Agricultural Policy (NAP) document aims to attain output growth rate in excess of 4 percent per annum in agriculture sector based on efficient use of resources. It seeks to achieve this growth in a sustainable manner and with equity. Some of the reforms the government has initiated are: (a) liberalization of land lease market (b) proposal to change regulation to promote contract farming and private markets. Contrary to the general perception it's the small farmers who account for the bulk of land leases. The main effects of leasing being illegal are: (a) a significant portion of the cultivable land remains unused, and (b) the small farmers have to raise money from the money lenders at a much higher rate. With the legalizing of this, these two things will be taken care of. Liberalisation of external trade requires policies to deal with volatile nature of international prices. Impact of volatility on imports can be regulated through appropriate tariffs but maintaining export poses serious problem. Price stabilisation funds for exports can help to maintain export at the times of low international prices. Incentive to agriculture should be provided by promoting competitive trade. These incentives should be consistent with demand side factors. Due to lot of regional variations, national level terms of trade often conceals regional story. There is a need to monitor TOT at regional level and to ensure that agricultural incentives promote regional equity. (Chand, 2002)

Contract Farming

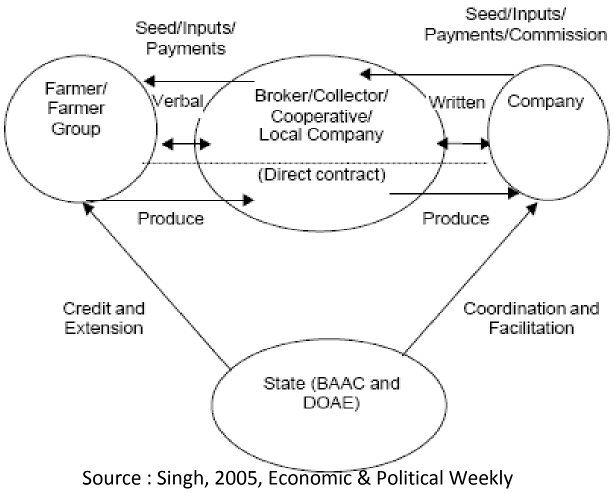
Contract Farming (CF) can be defined as a system for the production and supply of land based and allied produce by farmers/primary producers under advance contracts, the essence of such arrangements being a commitment to provide an agricultural commodity of a type, at a specified time, price, and in specified quantity to a known buyer (Singh, 2007).

Contract farming is an agreement that involves producers/farmers, intermediaries, processing and or marketing firms, to provide the farm produce at predetermined prices and quality, at specified places, after a specified duration. The contracts could be of three types namely : (i) procurement contracts under which only sale and purchase conditions are specified; (ii) partial contracts wherein only some of the inputs are supplied by the contracting firm and produce is bought at pre-agreed prices; and (iii) total contracts under which the contracting firm supplies and manages all the inputs on the farm and the farmer becomes just a supplier of land and labour. The relevance and importance of each type varies from product to product over time and these types are not mutually exclusive In fact, CF can be described as a halfway house between independent farm production and corporate/captive farming and can be a case of a step towards complete vertical integration or disintegration depending on the given context . CF is known by different variants like centralised model which is a company farmer arrangement; outgrower scheme which is run by the government/ public sector/joint venture; nucleus-outgrower scheme involving both captive farming and CF by the contracting agency; multi-partite arrangement involving many types of agencies; intermediary model where middlemen are involved between the company and the farmer; and satellite farming referring to any of the above models (Singh, 2007).

Contract Farming in Thailand

Ab initio, domination by middle men between companies and farmers has been a striking feature of Thai contract system. The state plays a vital role in policy front and also ensures private sector participation by a variety of ways. Apart from the co-ordinating role, and the local authority support, it also reallocated a 250 million baht deposit in Bank for Agriculture and Agricultural Cooperatives (BAAC). BAAC joins with a private firm for loan issuing and deducted the loan and interest from farmers' sale receipts. The main reasons for the failure of contract farming for farmers were the heavy reliance of companies on government support. The rigidity of the term of contract, which was purposively set forth for fairness to both the firms and farmers, was another reason due to which the firms lost flexibility in their management. The farmers needed time to adapt to new crops which usually came with new technology. When new crops did not provide desirable yield and return, farmers were discouraged and shifted back to their old crops. (Singh 2004)

Contract Farming System in Thailand



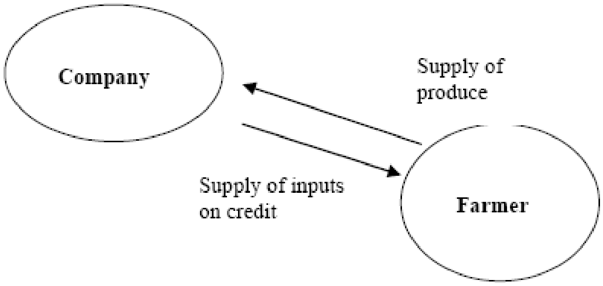
Source : Singh, 2005, Economic & Political Weekly

Emergence/ History

Contract Farming has its historical roots during the time when the Europeans first introduced indigo and opium cultivation in the Bengal Region, under the East India company rule. ITC's contracts with the farmers of Andhra Pradesh for growing Virginia tobacco during the 1920s, emergence of seed companies during the 1960s, the green revolution during the 1970s and finally the tomato farming contracts by Pepsico in Punjab during the 1990s can be quoted as some of the milestones in the emergence of contract farming in India. Several cash crops like tea, coffee, rubber, indigo etc are introduced in various parts of the country, mostly through a central expatriate-owned estate surrounded by small out growers' model. Since the Green Revolution, Government started the largest contract farming model, through which it subsidized fertilizers, provided new hybrid variety seeds, provided training and also guaranteed the procurement by State agencies with a minimum support price. In India, contract farming model had mixed results, due to some failures on the part of one of the stake holders and poor design of contracts. In India, contract farming by the corporate sector has so far been more of a case of buy back and input supply, except for some exceptions in states like Punjab, where the state is actively involved in some of the contracts.

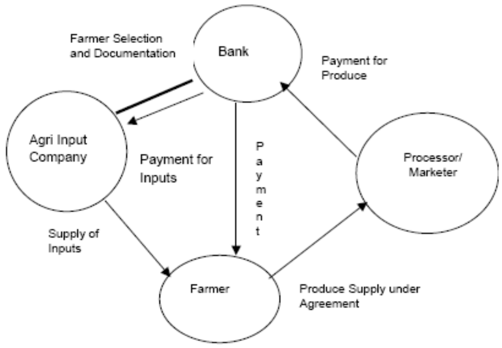
Some cases of Contract Farming in India

The Pepsi Case: Punjab could not maintain the momentum in agricultural growth generated by Green revolution by the early 1980s. The State government-appointed Johl Committee (1986) recommended diversification within farming away from wheat-paddy rotation to the extent of 20 per cent of area in favour of fruit and vegetable, fodder and oilseeds crops. Following gradual opening of industrial sector, Pepsi was allowed for contracting and processing of tomatoes.



Bi-Partite Contract Farming

Source : Singh, 2004 Economic& Political Weekly

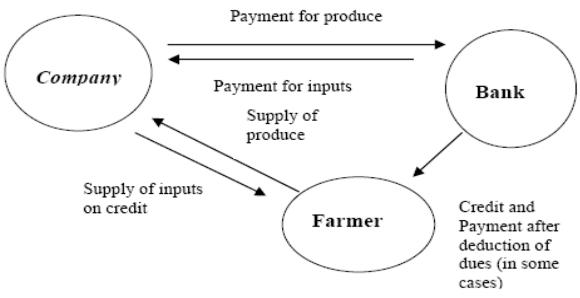


Tri-Partite Contract Farming

Source : Singh, 2004 Economic& Political Weekly

Pepsi brought in the necessary inputs, partnered with PAIC and Voltas, and maintained prompt payments, which resulted in the emergence of corporate farming in Punjab, in a big way.
Pepsi could not get the trust of the farmers fully, as the contracts were entirely tilted towards it. Also, the farmers were too dependent on Pepsi, which had the right of refusal, while the farmers were penalised on default. Pepsi could not maintain it for long and sold it off to HLL.

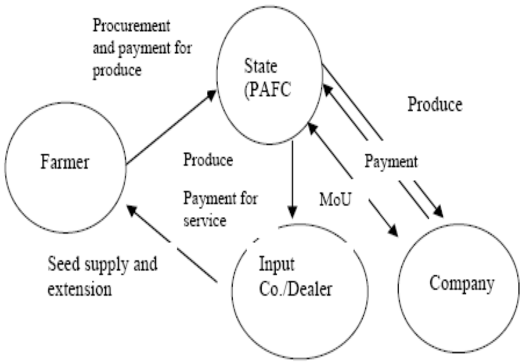
Rallis India Case: The company provides all inputs, technical support and finance to registered growers for a specific crop and facilitates the sale of produce at reasonable prices. The company follows a consortium approach. It has tied up with banks like ICICI and SBI and with buyers of produce like HLL, Picric and Cargill. The system is run through a network of 10 Rallis Kissan Kendras (RKKs) across the country.



Quad-Partite Contract Farming

Source : Singh, 2004 Economic& Polotical Weekly

State led Contract farming in Punjab: The Punjab government in October 2002 (for the rabi season) aimed at reducing 10 lakh hectares under wheat-paddy rotation over the next five years and implemented contract farming jointly by the Department of Agriculture, Punjab Agro Foodgrains Corporation (PAFC, subsidiary of PAIC) and private companies. This was the first time that the state government became the intermediary between companies and farmers.



State-led Contract Farming

Source : Singh, 2004 Economic& Polotical Weekly

The PAFC not only provided seeds purchased from reputed companies like Adventa India and Pro-Agro, and extension to contract growers, also promised to buy back the entire produce at pre-agreed prices through a tripartite agreement involving PAFC, the seed company through its dealer, and the farmer. But, by the harvesting season for the contracted crops, the programme had run into rough weather.
Though contract farming has existed in Punjab for more Than a decade now, this was the first time that the state government became the intermediary between companies and farmers.

Other experiences in India: Seed contracting widely prevalent in india burdens the growers with costs like seeds, cultivation, monitoring, transport, wastages, grading and packaging. The growers also bear the risks like low germination, reduced yield, poor quality, and rejections. But the default rates of contract growers have been low as they are assured grain price for seed crop at least and yields are better than grain crops.

Contract farming in India is done by MNCs, domestic corporates in many areas. Tomato cultivation in Punjab, Haryana and chandigarh, Mushrooms in Haryana, Sunflower cultivation in Andhra Pradesh and Karnataka, Fruits and vegetables in Tamilnadu, Maharashtra and Andhra Pradesh can be given as prominent examples of contract farming. (Singh, 2007)

Examples of success stories which do not entirely fit in to the definition of contract farming would be Amul & NDDB for milk procurement, the Sugarcane cooperatives in Maharashtra, green leaf satellite out growers to the South Indian tea manufacturing industry, the prawn aqua culture farmers of AP & the rapid spread of poultry projects in West Bengal, Tamilnadu, Maharashtra, Andhra Pradesh & Punjab. (sinha,PM. 2001)

Contract Farming can bring in higher efficiency, greater returns for the stake holders, positive spill over effects due to technology transfer (Pepsi case) etc. But, there can not be a single blue print or CF model for all situations across the diverse states of Imdia. Even for individual farmers, it is not contract per se but the relationship it represents which is crucial as the divergence between the two may prove crucial in determining the development of CF as an institution. It brings about a market focus in terms of crop selection by Indian farmers and reduces urban migration. It also flattens the seasonality in employment by giving a steady source of income to individual farmers, there-by creating self-reliance. (singh, 2006)

The other side of Contract Farming

Most of the contracts are completely biased towards the buyer company, with the farmers becoming completely dependent on the contracting party. Crops being focused for non-local markets related to the processing company, the farmer loses his local market and is effectively tied to the contractor. With higher capital borrowed from the contracting agent, the farmer is again tied to the contractor. Private companies don't go for any long-term agreement with farmers. Often companies flout the terms stated in the contract, some times using the fine print to back out of predetermined prices."

Because of their myopic view, the contracting firms generally end up worseningthe natural resource crisis as most of the contracts are short term (one or two crop cycles). The firms tend to look out for new growers and lands after squeezing out the fertility of the local resources, particularly land and water. The firms are only interested in their profits and do not care for the costs of effects like over-exploitation of groundwater, salination of soils. Effects like soil fertility decline, and pollution are externalised so far as the firm is concerned.

Stake holders – Companies

For a corporate, the objective of contract farming is to integrate the supply chain to ensure timely availability of quality and quantity of materials. It also reduces the procurement cost for them by eliminating the middlemen. Building of relationships of trust with farmers through company reputation rather than marketing gimmicks is crucial.

Rationale behind CF: CF can be seen as a less risky alternative to corporate farming. Further, in India, supermarket chain growth including FDI in retail, international trade and quality issues will help in the spread of CF across crops and regions. Contract Farming is now considered to be a corrective to market imperfections and serves a useful purpose in its own limited sphere. (Rani BN, 2007)

Farmer Selection: Firms are inclined large farmers due of their capacity to produce better quality crops using the efficient and business-oriented farming methods, the large volumes of produce which reduces the cost of collection for the firm, their capacity to bear risk in case of crop failure, and various services provided by these large producers like transport, storage, etc. On the other hand, being associated with smaller farmers gives access to cheaper labour, government incentives.

Advantages: The key resource constraint ie land availability can be met through contract farming. Also, it reduces the uncertainty in supply, with consistency in quality and quantity. (Rani BN, 2007)

Problems: Main problems are the diversion of input materials to other uses and the default of the farmer. Also, the farmer gets discontented due to reasons like one sidedness of the contract, ill effects of technology give etc and wont be interested to continue. Land availability and socio-cultural constraints are also some things to worry about. (Rani BN, 2007)

Stake holders – Farmers

Contracts can provide farmers with access to a wide range of managerial, technical and
extension services that otherwise may be unobtainable.

Advantages: A lot of benefits like appropriate technology access, skill transfer, access to credit, access to reliable markets come with the contract farming. It also gives the provision of inputs and production services, with a guarantees and fixed pricing structure. (Rani BN, 2007)

Problems: In many cases, the contracting company will be a monopsony in that locality, with huge bargaining power in their hands. Farmers generally bear most of the risk, which in case of Unsuitable technology and crop incompatibility ruins him. There is also scope for corruption and for Manipulation of quotas and quality specifications. (Rani BN, 2007)

Stakeholders – Government – APMC Act

According to the government, the APMC Acts of different states had become a stumbling block for hypermarkets who wish to deal with the farmer directly, and scale up operations. The Model APMC Act, sought to amend the APMC Act to permit private and corporate bodies to establish a marketing network for agriculture produce. (Business Standard, Nov 02, 2004) The APMC act permitted marketing of produce only through regulated markets, and no direct sale is permitted.

Legal reform process for contract is being accelerated by the Indian government with Model APMC Act, which now permits setting up of private markets, selling of produce by growers outside the APMCs (regulated markets), setting up of direct markets, specialized commodity specific markets, regulation and promotion of contract farming, provision for agencies and measures to promote quality, standards, and alternative markets, and public-private partnerships to facilitate more and better linkage between firms and farmers. The Model APMC Act has both mandatory and optional provisions in a model contract farming agreement wherein mandatory provisions specify who can undertake contract farming activity, contract specifications, liabilities, farmer asset indemnity, and dispute resolution. The optional provisions are about farm practices, insurance, monitoring of crops, role of farmer bodies, and support to the contract farmers. It also makes it mandatory to register contract farming activity with a local authority. Further, futures trading has been permitted in 54 commodities (Landes and Gulati, 2004).

So far a number of states have either amended their respective APMC Acts in tune with APMC Model Act or have started the process for the same.. Even the Central Government has adopted coercive methods to force State governments to amend their APMC Acts.

Corporate farming

Corporate farming refers to direct ownership or leasing in of farmland by business organisations in order to produce for their captive processing requirements or for the open market. When it is done for captive purposes, it is referred to as captive farming as well, though most of the time, the two terms are interchangeably used (singh 2006)

Corporate Farming Cases:

Jamnagar Farms Pvt. Ltd. – Subsidiary of Reliance Industries

Jamnagar Farms, the 1700 acre agri-forestry, agri-horticulture farm set up in previously arid land near the RIL refinery, uses the recycled wastewater from the refinery for irrigation purposes. Though initially taken up as part of the plan to improvement environment, the company has now become a profitable proposition and has prepared a roadmap for expanding farm production in other states.

Discussions are at an advanced stage for setting up such farms in Andhra Pradesh, Karnataka and Maharashtra. With the investment in Jamnagar having touched Rs 10 crore during the past three to four years, sources said the foray in the agri sector was expected "to breakeven in seven years with an expected return rate of 30 per cent".

Apart from mango which will constitute the bulk of the produce, 29 other products have been identified for the purpose. Jamnagar Farms currently owns Asia's biggest mango orchard spreading over 450 acres. (The Hindu, March 18, 2008)

Field Fresh: A 50:50 venture by Bharti Enterprises and Rothschild:

With the idea of establishing a R&D enabled farm, Bharti Enterprises in partnership with Rothschild acquired around 300 acres of land in Punjab. The focus is on growing fruits and vegetables using the latest technology. Distribution of fresh fruits and vegetables is done to the European Union, Eastern Europe, South East Asia, Middle East and the CIS countries. It has already sent the first consignment of vegetables to the UK included okra, bitter gourd and chilli.

This venture has helped the local farmers raise their monthly income. If we take the case of a family with two acres of land leased out to Field Fresh, the rent from the lease is Rs 30,000 per year (Rs 15,000 per year per acre). Suppose two members from the family work for the company, their income will be Rs 57,600 (at Rs 80 per day per worker). Thus the over all income of the family works out to be Rs 87,600. In the absence of such a farming model the average gross output of such a farm in Punjab is Rs 50,000 (without any cost deduction).
(Singh, 2006)

Other side of Corporate farming

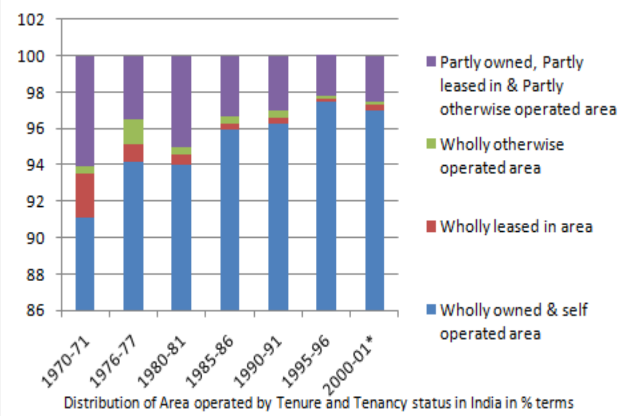
Looking from the social perspective, corporate offering money for land to a marginal farmer might be an offer he can not refuse. Though this offer might be very tempting in the short term, it might end up leaving the farmer jobless and landless in the long term. Other stakeholders of the land like women or children might be exposed to the risk of losing the source of their livelihood. To avoid any such situation the government might bring a law which allows only leasing of the land and not complete sale (a variation of the land ceiling law).

The fertility of land is degradable and there is always the risk of the corporate not doing enough to maintain the fertility (especially towards the end of the lease). The farmer (or lesser) might be the loser in this case.

Corporate farming brings in various type of risks such as mismanagement, lack of understanding between the management and workers, neglect of field improvement etc. In fact, the reasons attributed to the failure of corporate farming in Iran are mismanagement due to lack of relevant experience, inflexible management, neglect, no contingency planning, under- capitalisation and poor labour relations.

Tenancy

With the incidence of tenancy reforms, share of tenancy decreased from 23.34% during the year 1952-53 to 10.7% in 1961-62 and then to 7.18% in 1982.Reduction in the



Distribution of Area operated by Tenure and Tenancy status in India in % terms

Data Source: ***http://agcensus.nic.in/document/analysis01natasg.htm***

2000-01 Agriculture Census Data of India

area under tenancy was because of two diverse factors. First, the law that conferred ownership rights to erstwhile tenants. And second, evictions and resumptions by the

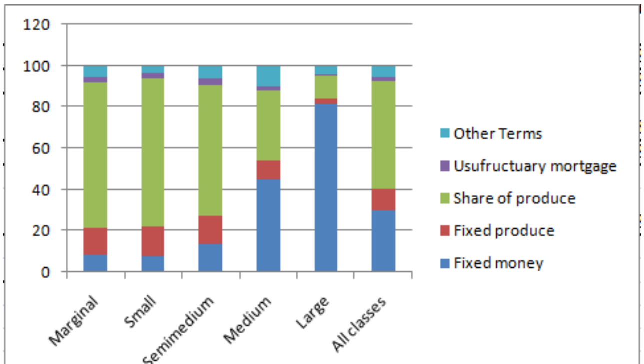
land owners, first during the 1960s and the then in the wake of green revolution when profits from self cultivation of land increased, may also explain the decline in area under tenancy.

The banning of tenancy and various lease restrictions has only pushed the phenomenon underground, rendering the tenants' position even more precarious. Also the new agricultural technology has substantially changed the nature and extent of tenancy. (Saxena, N. C. 2002.)

The Indian government's National Agriculture Policy policy envisages that "private sector participation, through contract farming and land leasing arrangements, will allow accelerated technology transfer, capital inflow and an assured market for crop production, especially of oilseeds, cotton and horticultural crops." (Report by Crisil for IBEF on Agriculture)

Under the Indian Constitution, land reform is the responsibility of individual states so while the federal government provides broad policy guidelines, the nature of land reform legislation, the level of political will and institutional support for land reform and the degree of success in implementing land reform have varied considerably from state to state with the agenda remaining unfinished in most states. (Chatterjee, 2002)
The government policy on tenancy varies from state to state in India with some states allowing it while it is illegal in certain states. However, prohibition has given way to concealed tenancy deals with around 15-25% of the tenancy deals in India being illegal and covert. The states of Gujarat, Madhya Pradesh, Karnataka, and Maharashtra have recently allowed agribusiness firms to buy and operate large land holdings for R&D, and export-oriented production purposes. And, even states like Punjab are planning to raise the ceiling on holdings in order to encourage large-scale farming for making farming a viable proposition in the state.(Singh 2006)

Most popular forms of lease markets are share cropping and fixed money or fixed produce; fixed kind or cash type has been gaining currency suggesting that lands with stable yields have been preferred for leasing-in. As the size of the farm increases, the owners are tilting towards fixed money lease, which is the feature of corporate farming. This is due to two reasons. 1) Deeper pockets of larger farmers, who wants to get all the benefits from his land. 2) Capital constraint for smaller farmer who can not pay to the owner and can only offer the share of the produce. In the case of the small farmer, what ever extra effort he puts in for better crop will be shared by the owner. So, this might hamper the productivity of the farm, with the farmer getting disillusioned. Corporate farming, one step ahead of the large farmer leasing in scenario, can bring in economies of scale and assure stable inflows and outflows.



Distribution of leasedin area in India by Terms of leasing by Major Size Classes during 1995-96 in % terms

Data Source:* *http://agcensus.nic.in/document/analysis01natasg.htm

2000-01 Agriculture Census Data of India

The demand for liberalization of agricultural tenancy has come to the fore with the liberalization of economy. The business houses have been the biggest proponents of these reforms, corporate farming is a must for stable production and export performance (Singh, 1994). Many of the farmers who have committed suicide recently had rented in land, but not being legal tenants, had to borrow money from the moneylenders and could not repay the usurious interest rates (Deshpande 2003). So, the small marginal farmers will benefit greatly if tenancy is made legal, as at present, the tenant has no legal preotection and cannot raise money from financial institutions.

Waste lands

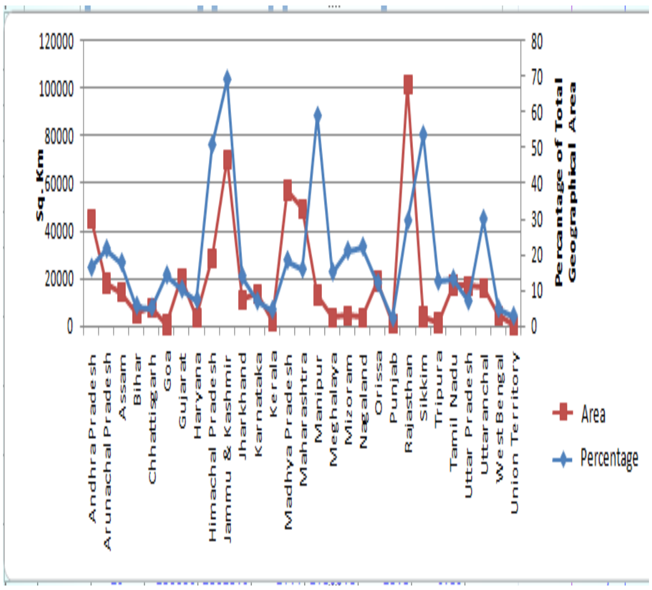
In order to achieve a higher growth rate for the agriculture sector, the government has been looking for partnership with the corporate houses. With 17.45% of the land in India being wasteland in 2003[1], there lies huge opportunity to strengthen this partnership. The government of Gujarat has recently offered wastelands up to 2000 acres for horticulture and biofuels for 20 year lease to big corporate houses and resourceful farmers.

Tamil Nadu Case:

In order to make all possible use of wasteland Tamil Nadu has started the wasteland development program. Under this, the government lends out fallow and degraded land to the corporate sector and co-operative societies to be developed for agricultural activities. The government aspires to be a 'facilitator' between the famers and the corporate houses. The programme will cover cultivation of cash crops including cotton, fruits and vegetables, flowers, spices and plantation crops, among others, with forward linkages to agri-business, storage and markets. Government needs to consider inviting corporate houses for leasing these waste lands for longer durations like 25-30 years. This might involve contribution of labour by farmers and sharing of revenues between the corporate and the farmers.

Similar initiatives can be taken up by other states as well but for this system to work fine the government will have to come up with comprehensive laws in order to handle any dispute. An efficient management of the wasteland can give India the target 4% growth rate of the agriculture sector.

[1] http://dolr.nic.in/WastelandStateArea.htm



Graph: The area and percentage of waste land plotted state wise in India. (Data Source: http://dolr.nic.in/WastelandStateArea.htm; Department of Land resources)

From the graph we can see that the hilly states like Jammu and Kashmir, Himachal Pradesh, Manipur, Sikkim, Uttaranchal, Arunachal Pradesh etc have high percentage of wasteland. This might be due to two major reasons. The hilly terrain in these areas makes it very difficult to use them for cultivation. Secondly, we observe that most of these areas are near the country border. Regular presence of army and war threats makes it impossible to cultivate on this land. As far as the hilly areas not very close to the border are concerned models similar to the tea plantations done in the northern parts of West Bengal can be introduced. Corporate can be invited to explore the possibility of plantation farming in these areas.

The fertile areas of the Ganga basin like Punjab, UP, Bihar and West Bengal have very low level of wastelands. Due to the fertile nature of the land, these lands are widely used for cultivation.

Comparison table

Parameter	Private Farming	Co-operative Farming	Contract Farming	Corporate Farming
Ownership	Held by private farmer	Held by private farmer	Held by farmer	Held by the company
Risk Sharing	Entirely born by farmer	Collectively born by group of farmers	Mostly by farmer as most contracts are one-sided	Entirely by the company
Ease of Credit	Difficult among the 4 alternatives	Slightly easier than private farming	Easier as contract can be showed as collateral	Easier for the company as banks see lesser risk
Capital	Has to be infused by the farmer completely	Group of farmers rake in money and invest collectively	Depending on the contract terms , farmer, firm invest	Entirely infused by the contracting firm
Farm –firm flow	Many Intermediaries	Same as pvt farming, but higher bargaining power due to collectivity	Very less/no middle men between farmers and firm	No intermediaries as firm directly takes the produce
Market Access	Uncertain and difficult to get a reliable route	Better than private farming due to higher bargaining power	Reliable access, assuming no default by the firm	Fool proof access as farming is done by the firm itself
Technology	Relatively unsophisticated	Can try new technology through collective funds	Access to new technology inputs from the firms	Employs latest technologies for higher productivity
Government Role	In credit /seed inputs, in mandis and sale (MSP)	In credit /seed inputs, in mandis and sale (MSP)	In facilitating contracts, contract laws, credit issuing	Leasing laws and facilitating firms' entry
Tenancy laws	Affect the leasing	Affect the leasing	Affect farmer leases	Affect the firm
Sustainability	Hard for marginal farmer to remain profitable	Relatively better than private farmer, with collective resources	Short term in nature, affected by government policies	Long term in nature, affected by government policies
Social Effects	No dramatic changes from the status quo of the society	Unity, self sufficiency among the farmer community	1)Skewed contracts lead to arm twisting of small farmers.	Indiscriminate corporate farming leads to the

			2)Corporate might end up dictating what to grow and what to eat	suppression of smaller players/farmers in the market
Economic Effects	Marginal farmer might end up in vicious debt cycle endlessly	Gives a lot of bargaining power and a great boost to the earnings	Farmers might become too dependent. Market Imperfections due to one-sided contracts	Concentration on power to few MNCs if used indiscriminately. Good use of waste/ unutilized lands.
Environmental Impact	Fertility can be maintained if used judiciously	Fertility can be maintained if used judiciously	Fertility of lands might be squeezed out due to myopic view of firms	Fertility may be maintained, due to long term orientation of firm
Politics Involved	Have become a tool for votes, affected by the wavering decisions of different governments	Will be welcomed by all the sections of the society	Government facing opposition for APMC model act, brought out for helping contracts	Might face a lot of opposition for implementation

Conclusion

The small and marginal farmer, is not able to invest in new technology and hence increase his productivity. His low investment capability leads to low produce, which due to lack of sufficient market access, gives him meagre income, which again leads to low investment. Thus, he is trapped in a vicious cycle of debt. Cooperative farming can help him achieve economies of scale, but the market access problem is not solved through that completely, though his bargaining power increases through this model. Contract farming addresses the problem of market access but in many cases, the contracts are too one sided. If the government takes proper care in regulating the terms of contract, in order not to make them too skewed, higher efficiencies and hence greater societal welfare can be achieved. Indiscriminate opening up of agricultural sector to corporate companies can impact the social and economic equilibrium of the country very badly. Corporate farming can be very suitable for utilizing the waste and unutilized cultivable lands of India. Proper steps have to be taken by the government for making most of the corporate farming model, that brings in technology, efficiency and sustainability.

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