Contract Farming Led To Agrarian Torment: The Other Side Of Contract Farming

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INTRODUCTION

As globalization and market liberalization profoundly change global agricultural production, small farms in developing countries are at a risk of being excluded from the opportunities for higher-value production arising from the opening of regional and international markets. Small farms typically lack the resources, knowledge, and information to compete in increasingly integrated markets. They are hampered by imperfect market information, poor infrastructure, and have few links with buyers in the marketing chain. These disadvantages contribute significantly to the low incomes and poverty found in developing countries like India, where small farms dominate the agricultural sector.Agriculture in India is one of the most important sectors of its economy. It is the means of livelihood of almost two thirds of the work force in the country and according to the economic data for the financial year 2006-07, agriculture accounted for 18% of India's GDP. About 43 % of India's geographical area is used for agricultural activity. Though the share of Indian agriculture in the GDP has declined steadily , it is still the single largest contributor to the GDP and plays a vital role in the overall socio-economic development of India.

One of the biggest success stories of independent India is the rapid strides made in the field of agriculture. From a nation dependent on food imports to feed its population, India today is not only self-sufficient in grain production but also has substantial reserves. Dependence of India on agricultural imports and the crises of food shortage encountered in 1960s convinced planners that India's growing population, as well as concerns about national independence, security, and political stability required self-sufficiency in food production. This perception led to a program of agricultural improvement called the Green Revolution. It involved bringing additional area under cultivation, extension of irrigation facilities, the use of improved high-yielding variety of seeds, evolution of better techniques through agricultural research, water management, and plant protection through judicious use of fertilisers, pesticides and cropping practices. All these measures had a salutary effect and the production of wheat and rice witnessed a quantumleap. To carry improved technologies to farmers and to replicate the success achieved in the production of wheat and rice, a National Pulse Development Programme, covering 13 states, was launched in 1986. Similarly, a Technology Mission on Oilseeds was launched in 1986 to increase production of oilseeds in the country and to attain self-sufficiency. Pulses were brought under the Technology Mission in 1990. After the setting up of the Technology Mission, there has been consistent improvement in the production of oilseeds. A new seeds policy has been adopted to provide access to high-quality seeds and plant material for vegetables, fruit, flowers, oilseeds and pulses, without in any way compromising quarantine conditions. To give fillip to the agriculture and to make it more profitable, the Ministry of Food Processing Industries was set up in July 1988. The Government has also taken initiatives to encourage private sector investment in the food processing industry. However, there are still a host of issues that need to be addressed regarding Indian agriculture. Indian agriculture is heavily dependent on monsoons. The monsoons play a critical role in determining whether the harvest will be rich, average, or poor. The structural weaknesses of the agriculture sector are reflected in the low level of public investment, exhaustion of the yield potential of new high yielding varieties of wheat and rice, unbalanced fertilizer use, low seeds replacement rate, an inadequate incentive system and post harvest value addition.

There is an urgent need for a second green revolution in Indian agriculture and taking it to a higher trajectory of 4 per cent annual growth. The following steps need to be taken to achieve this objective:

- Doubling the rate of growth of irrigated area.
- Reclaiming degraded land and focusing on soil quality.

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❁ Improving water management, rain water harvesting and watershed development.
❁ Bridging the knowledge gap through effective extension services.
❁ Diversifying into high value outputs, fruits, vegetables, flowers, herbs and spices, medicinal plants, bamboo, bio-diesel, but with adequate measures to ensure food security.
❁ Providing easy access to credit at affordable rates.

All this can be achieved by means of contract farming. The prime advantage of a contractual agreement for farmers is that the sponsor will normally undertake to purchase all produce grown, within specified quality and quantity parameters. Contracts can also provide farmers with access to a wide range of managerial, technical and extension services that otherwise may be unobtainable. Farmers can use the contract agreement as collateral to arrange credit with a commercial bank in order to fund inputs. Thus, the main potential advantages for farmers are:

❁ Provision of inputs and production services.
❁ Access to credit.
❁ Introduction of appropriate technology.
❁ Skill transfer.
❁ Guaranteed and fixed pricing structures; and
❁ Access to reliable markets.

Reliance Industries & Bharti Enterprises are planning to invest in this sector. The hotel-to-fast moving consumer goods major have had several rounds of discussions. Business Standard reported that ITC was one of the major companies to commit big-time money in the state for agro-processing. The others were Reliance Industries and Bharti Enterprises. The business models of ITC and Reliance Industries are similar. Both companies would do contract farming and buy back the entire produce for their respective retail businesses.

Commenting on Reliance Industries' plan, the company would invest Rs 6,000 crore to set up 54 rural hubs across the state in Punjab alone. The company has also set up eight agro-processing units to supply fresh vegetable and fruit to West Asia and Europe. The company plans to set up three hubs each in 18 districts. RIL will also take care of education for the farmers as well. It has finalised 15 hubs.

A move to enact Agriculture Produce Marketing Committee (APMC) Act is yet to see the light of the day despite being approved by a sub-committee of the state cabinet. Soon after the sub-committee headed by Agriculture Minister gave its approval, the APMC drafted the bill and suggested certain changes including the study of such an Act.

Though no reasons are being cited in this regard, top officials admitted that the government was a bit hesitant to pass the Act before the Lok Sabha elections. Moreover, there had been opposition from various quarters against the opening of Reliance Retail showrooms under the brand of Reliance Fresh.

The sources said the government's reluctance on the APMC Act has blocked top-notch companies like Reliance, ITC and Mother Dairy from directly entering into the agriculture sector in the state. These companies are ready to invest Rs 2,000 crore in the hill state through different proposals, said an agriculture department official.

Both Reliance and ITC have shown interest in contract farming in the state for which the government has to pass the APMC bill. ITC has got a bulk purchase licence from the state government for procuring.

Reliance Industries Ltd (RIL) is also likely to put up its proposal for procuring both food grain and horticultural produce soon and has plans to invest Rs 1,200 crore in agriculture. The bulk purchase licences will allow companies to buy directly from farmers ahead of setting up private '*mandis*' in the state.

The APMC Act contains provisions for setting up these *mandis*, enabling contract farming and constitution of a regulatory authority to ensure a level playing field between the government-controlled *Mandis (shandies)* and the private ones. Private *Mandis* would mean cutting out extra cess such as the *Mandi* Cess and other charges, reducing final costs for consumers and buyers and allowing better gains for farmers, officials said.

In effect, the new APMC Act would mean direct purchase of commodities at market-defined prices by trading and corporate houses from farmers, either through individual purchase contracts or from farmer/consumer markets.

But then, not everyone has ITC's rural pedigree: 100 years of tobacco farming and another 30 years in oilseeds. This has given ITC enviable farm linkages. To feed its initial foray into retail - that's just three cash and carry stores in Hyderabad, Pune and Chandigarh - the agri division works with 600 farmers spread across the same three clusters on everyday vegetables such as tomato, gourds, cabbage, cauliflower, brinjal and potato. For its export business, ITC works with grape and mango farmers, some 3,000 in all, to procure about 25,000 tonnes. This number will go up as the stores expand.

The more stunning numbers are to be found in the non-perishables that go into ITC's branded foods business. In spices and wheat, it partners with 100,000 farmers (for 700,000 tonnes) and an even larger number for its grain & oilseed exports: three million farmers for procuring two million tonnes. With such experience behind it, it is easy for ITC to maintain that contract farming is not important.

A bright spot on the otherwise cloudy horizon is that the private sector is now looking at rural areas as a potentially important market and is keen on increasing its investments in the hinterland, thereby opening up opportunities for farmers. In this context, the private corporate sector is looking at contract farming to provide a proper linkage between the farm and the market.

Apart from big players such as Hindustan Lever, ITC, Pepsi Foods, the Tata group, Reliance, and Mahindra and Mahindra, a few mid-size companies have initiated backward integration with the farm sector.

The idea is to cut out the middlemen for the benefit of both the parties. The retail revolution that is underway, involving such giants as Wal-Mart, Reliance Fresh, ITC, the Birla Group, PepsiCo, Big Bazaar, and so on, is expected to provide a big push to contract farming in the coming days.The coming together of Hindustan Lever, Rallis and ICICI for contract farming in wheat in Madhya Pradesh provides a good example of the great potential in this area. Under the system, Rallis supplies agri-inputs and know how; ICICI provides credit to farmers, and HLL buys the output.

A big push to contract farming will bring in private investment into the farm sector in a big way, provide a linkage between farm and food processing, eliminate middlemen and help transform agriculture into a viable and remunerative activity.

REASONS AS TO WHY CONTRACT FARMING HAS NOT WORKED WELL

1. Promoters bear high transaction costs because of poor infrastructure and dealing with individual farmers scattered over large areas.

2. Farmer organizations are weak. Most lack managerial, leadership and production skills.

3. International trade agreements put up barriers to trade and deny agricultural products from India fair access to world markets.

4. High production risks due to crop failure, resulting in insufficient volumes, or products that do not meet the standards.

5. Inability among farmers to predict prices or factors in unfavorable exchange rates and other marketing risks. This sometimes leads to buyers ending contracts prematurely.

6. Promoters who take advantage of farmers' weak bargaining position to exploit them.

THE RISKS OF CONTRACT FARMING

Although the arguments in favour of contract farming are convincing, but there are also five key risks for smallholder producers. Contract farming can contribute to a loss of autonomy and control over farm enterprises. Smallholders also face substantial production risks if the technology available is inadequate or if the firm's price forecasts are inaccurate. Third, the firm's exclusive purchase rights can depress producer prices, or lead to late and partial payments (increased indebtedness is not uncommon). Fourth, contracts may be verbal or, if written, are not always in clear language (and conditions can be manipulated). Last, the vital gender dimension to smallholder farming often means that the intra-household distribution of labour/income is often altered to the detriment of women's interests.

There are also risks for firms. Smallholders often seek to profit from the inputs and produce by side marketing. For example, they may sell fertilizer for cash, or sell the produce post-harvest (to gain faster access to capital, to seek higher prices, or just to avoid repaying the firm). The limited literacy and education of some small farmers may also increase risks for the firms, and a widely dispersed small holder population certainly increases transaction costs.

FIVE RISKS ARE PARTICULARLY IMPORTANT FOR SMALLHOLDERS

1. Contract farming can contribute to a loss of autonomy and control over farm enterprises.

2. Smallholders may face substantial production risk if the technology or the company's forecast is inappropriate.

3. The firm's exclusive purchase rights can depress producer prices, or lead to late and partial payments. Increased indebtedness is not uncommon.

4. Contracts can be verbal and if written, are not always in the vernacular. This can result in manipulation of conditions.

5. The strong gender dimension means that the intra-household distribution of labour/ income is often altered to the detriment of women's interests.

TRANSACTION COSTS

- Search and information cost to bargain and take a decision.
- Availability, quality etc.
- Bargaining and decision cost.
- Risk of procuring inferior materials.
- Market failure occurs for goods- idiosyncratic in nature.
- Benefits and transaction specific.
- Need assurance - recurrent demand.

The potato farmers can choose to sell their produce in several local, regional or central markets. Locally, the farmers can sell their produce at the farm gate, or in local fairs and in the other markets including contractors. The contract market is situated at the central node for potato sales in the region.

The distance traveled by individual households to reach the market is very varied and household specific. An average distance traveled by households to reach the diverse market varies from 0.6 km to 395 km.

Table 1: Risks Of Potato Production And Benefits Of Contract Farming

Constraints To /Risks Of Market - Oriented Potato Production	Benefits of Contract Farming To	
	Integrator Buyer Trader	Contract Grower
No capital	Investment opportunities in potato;	Access to capital
Loss of capital	Incentive to contract farming for longer term commitments	Protection against diseases
Quality of product	Assurance of produce	Access to better stock
Reliability of output price	Reliability of supply	Reliability of outlet
Quality and price of inputs	Quality gain for integrators	Quality assurance, assurance of supply; credit
Timing/availability of outputs	Volume and phasing of outputs are according to agreement	Ready outlet for output at designated schedule
Timing of output		Timely outlet
Labour supervision	Relation with farmer is one of a hired labour	Farmer manages production on his own
Land tenure	Access to land	
Environmental regulation	Avoid legal responsibility for pollution	
Knowledge deficit		Access to extension
Exposure to diseases	Assurance about health status condition	Access to healthy seed stock and other services

Source: PPLPI Research Report, 2008

Table 2: Market Distance, Quantity And Price

	Average distance traveled to market (km)			Average quantity per market (kg)			Average price per market (soles/kg)		
Market	Bad road access	Good road access	All	Bad road access	Good road access	All	Bad road access	Good road access	All
Farm	0.2	0.7	0.6	1,788	5,336	4,642	0.17	0.2	0.19
Local fair	6.2	N.A	6.2	1,440	1,863	1,511	0.2	0.22	0.2
Others	79	22.6	47.8	3,126	4,148	3,624	0.26	0.26	0.26

Nonetheless, it was observed that due to the high discrepancy in prices and quantity sold, the value that can be obtained per transaction in the markets of farm and local fair is considerably higher, even when transport costs are accounted for. Calculations of the average value of transaction show that the average values to be attained are as shown in Table 3.

Table 3: Values of Transaction

Market	Number of Household Transaction				Market Share And Value of Transaction		
	Bad Road Access	Good Road Access	All	Market Share (%)	Average Kilos Sold Per Transaction (kg)	Sale Price Minus Transport Costs (kg)	Average Value of Transaction
Farm	54	220	274	19.9	16.9	0.19	3.2
Local fair	74	15	89	6.5	17.0	0.16	2.7
Other	193	230	423	30.7	8.6	0.20	1.7

ANALYSIS AND RESULTS

The analysis is based on the following hypotheses:

- **Factors that reduce transaction costs effect quantity sold positively.**
- **Factors, other than price, influence marketing behavior and the level of market integration: transaction costs hinder market integration.**

DEFINITION OF TRANSACTION COSTS

For the purpose of this study, we subdivide transaction costs into three categories, **namely Information Costs, Negotiation Costs and Enforcement Costs.** Information costs are the costs incurred previously to the transaction while attempting to obtain information on the transaction. Negotiation costs are represented by all costs encountered during the set-up of the transaction. And finally, monitoring costs are the transaction costs incurred to monitor and enforce the transaction as agreed. Details of the costs sustained by the farmers under each category are discussed below:

(I) COSTS INCURRED BEFORE THE TRANSACTION--INFORMATION COSTS

Price information can be costly and difficult to obtain, especially in conditions of reduced information flows. The difficulty incurred in obtaining price information can be measured by the time lag between market prices becoming known and the time of sale. In this, on text, rural households were asked with what time difference they discovered price information in the markets (PRICE LAG).PRICELAG takes on the value of 0 if price information is obtained at the time of sale and it takes on the value of 1 when it is received a number of days before the time of sale. Incorrect price information is also a cost to the farmer. If the price information is not correct, the rural sellers could mistakenly select a market or transaction and be selling their produce at a lower price, thereby losing some of the possible profit. In the survey, the rural households were asked if the actual potato sale price was different from the known sale price. The households reported on the difference between the actual sale price and the known price (PRICE KNOW). For some households, the actual sale price was lower than the known market price; for others, it was the same or higher.

Previously agreed sales will assist the farmers in lowering the information requirement costs of a transaction. When sales are agreed previously, there is no need to find a buyer for the produce and to gather price and market information. The relevant variable in the survey differentiates between sales agreed previously to the time of sale and sales agreed at the time of sale (PRICE AGREE).

(II) COSTS INCURRED DURING THE TRANSACTION--NEGOTIATION COSTS

Transportation costs are incurred by the households when transporting the produce to the chosen market and are

considered to be negotiation costs when they are specific to the marketing channel chosen. Reporting for transport costs was low and also highly correlated with the road-access variable. Therefore, due to the net separation of survey households into two groups according to their road access, road-access was used to account for diversity in road-access and as a proxy for transport costs (ROADACCESS).Produce being taken to the market can be severely damaged through transportation (DAMAGE) and a large number of farmers responded that damage was considerable and serious. Damage to the produce could cause problems for the farmers to the extent that if the produce is seriously damaged, the farmer may no longer be able to sell it once it reaches the market.Time spent at the market waiting to sell the produce is another negotiation cost, given that time spent at the market could be exploited for other activities (WAIT). The time the farmer had to spend in the market could vary from one hour to the whole day.Farmers can coordinate with one another to organize transportation to reach the market. Coordinated transportation will assist the farmers to reduce negotiation costs during transaction time (COORDINATE).

(III) COSTS INCURRED AFTER THE TRANSACTION--MONITORING AND ENFORCEMENT COSTS

A monitoring cost is incurred when the farmer has to spend time going to the merchant to obtain the payment for the produce. The number of times that the farmer has to approach the merchant to get paid (TIMESPAY) can vary and as it increases, the costs incurred to set the time aside to go to the merchant to obtain the payment increases. The number of times surveyed farmers had to go and visit the merchant varied from none to seven.A second monitoring cost is the loss incurred when the final sale price obtained for the potato sale is less that the sale price agreed (PRICEDIFF). There was considerable variation in the responses of the producers and the final sale price could be less, the same or slightly more that the initially agreed price.In the survey, farmers were asked if they were able to obtain a receipt for the transaction undertaken with the merchant (RECEIPT). Obtaining a receipt will assist the seller in keeping track of the transaction date and agreed price and also to counteract any future conflicts that may arise. This will allow monitoring and enforcement costs to be minimized.

For the sellers, the fulfillment of agreed transaction details is an important characteristic that merchants should have (FULFIL). This will allow cost reductions by ensuring that the merchant is reliable and attainable to

Table 4: Information Costs

Variable Description	Variable Name		Dummy Value
Time of price information	Price lag	At time of sale	0
		Day before	1
Difference in price knowledge	Price know	Lower than expected	0
		Similar to what expected, higher than expected	1
Time of price agreement	Price agree	At the time of sale	0
		By previous agreement	1

Table 5: Negotiation Costs

Variable Description	Variable Name		Dummy Value
Road Access	Road Access	Bad road access	0
		Good road access	1
Price Negotiation	Times Negligable	None	0
		Various	1
Damage Due To Transport	Damage	Not serious	0
		Serious	1
Coordinated Transportation	Coordinate	Never/few times	0
		Usually/always	1
Time lag to sell	Wait	Very quickly	0
		More than two hours	1

agreement.Conflicts with the merchants entail delays in receiving payments and other time losses (CONFLICT). If merchants generate conflict over produce quality, the farmers will not be sure that the transaction will be finalized. In this case, all previous information and negotiation costs will have been misspent, a new buyer might be needed to be found and time will have been lost with the wrong buyer. Confidence in the merchant will assist the farmer in carrying out a smooth transaction and could reduce all transaction costs. Confidence in the merchant will also lower other transaction costs as the farmer will not need to obtain information as to whether the merchant is recognized as reliable. Confidence levels in the merchant varied from low to high (CONFIDENCE).

Table 6 : Enforcement Costs

Variable Description	Variable Name		Dummy Value
Difference between sale and agreed price	Price diff	Less	0
		The same or a bit more	1
Times went to merchant	Times pay	None	0
		Various times (one or more)	1
Receipt for sale	Receipt	No	0
		Yes	1
Recognition of quality	Conflict	No	0
		Yes	1
Confidence in merchant	Confidence	Low	0
		High	1

TRANSACTION COSTS AND QUANTITY SOLD

The following semi-log model was chosen to test the effect of household characteristics and transaction costs on quantity sold.

$$Log\ Q = \beta_0 + \beta_1 ROADACCESS + \beta_2 PRICEDIFF + \beta_3 PRICEKNOW + \beta_4 CONFLICT + \beta_5 TIMESNEG + \beta_6 CONFIDENCE + \beta_7 PRICEAGREE + \beta_8 LANGUAGE + \beta_9 MEMBER$$

The results obtained from the regression are presented in Table 7. From the analysis, access to roads, non-existence of conflicts, confidence in the seller, agreement of price before the transaction and knowledge were all found to be significant (at the 5% level) in explaining a higher quantity sold. Knowledge of price was significant at the 10% level.

Table 7: Market Access: Quantity Sold In The Market

Dependent Variable: Quantity Sold In The Market						
	Coefficient	Standard Error	T	p>|t|	[95% confidence interval]	
Road access*	0.63	0.07	9.33	0	0.50	0.77
Price diff	0.05	0.08	0.68	0.497	-0.10	0.21
Price know**	0.14	0.08	1.81	0.071	-0.01	0.30
Conflict*	-0.38	0.08	-4.97	0	-0.54	-0.23
Timesneg	-0.13	0.09	-1.35	0.178	-0.31	0.06
Confidence*	0.67	0.07	9.38	0	0.53	0.81
Price agree*	0.32	0.07	4.35	0	0.18	0.47
Language*	0.30	0.08	3.92	0	0.15	0.44
Member	0.02	0.07	0.33	0.738	-0.12	0.16
Constant	**7.33**	**0.14**	**53.2**	**0**	**7.06**	**7.60**

* Significant at the 5% level. ** Significant at the 10% level

TRANSACTION COSTS AND MARKET INTEGRATION

It was argued above that an important factor affecting market integration was positive transaction costs, which are factors beyond the market price and specific to households and each transaction.A qualitative dependent variable model (Probit) was used to test this hypothesis. The qualitative dependent variable was defined as sales in local market (0) vs. sales in central market (1) as a proxy for market integration.

$$INTEGRATION = \beta_0 + \beta_1 PRICE + \beta_2 PRICELAG + \beta_3 VARIETY + \beta_4 COORDINATE + \beta_5 CONFIDENCE + \beta_6 TIMESPAY + \beta_7 DAMAGE + \beta_8 TOTPLOT + \beta_9 LANGUAGE + \beta_{10} MEMBER$$

The results show that market price is an important determinant of where sales occur. Timely information on market prices has a significant impact on market integration as well as the type of variety sold. The probability of selling in a central market increases if farmers are producers of potatoes of the improved variety. Coordinating transport with other farmers has a significant impact on the probability of selling in a regional or central market. Damage to the produce due to transportation decreased the probability of selling potatoes in the regional or central market. The results show that the larger the size of land allocated to potato production, the more likely the farmer is to sell in national markets. Clearly, reaching the national markets is also scale and means dependent. The likelihood of selling in national markets increases with household institution membership possibly due to improved networking and contracts. Market integration is also higher where the seller trusts the buyer. Again, local speakers show a higher degree of market integration than other households.

Table 8 : Marketing Integration: Central And Regional Versus Local Sales

Dependent Variable: Access To Regional M arket vs. Contractors						
	Coefficient	**Standard Error**	**T**	**p>|t|**	**[95% confidence interval]**	
Price*	16.78	1.54	10.91	0	13.76	19.79
Price lag*	1.74	0.20	8.85	0	1.36	2.13
Variety*	0.58	0.20	2.89	0.004	0.19	0.98
Coordinate**	0.36	0.19	1.88	0.061	-0.02	0.74
Confidence	0.00	0.06	0.01	0.993	-0.12	0.12
Times pay	-0.18	0.17	-1.09	0.274	-0.51	0.15
Damage*	-0.45	0.16	-2.71	0.007	-0.77	-0.12
Language*	0.62	0.22	2.8	0.005	0.19	1.06
Member*	0.43	0.18	2.37	0.018	0.07	0.78
Constant	**-7.49**	**0.73**	**-10.28**	**0**	**-8.92**	**-6.06**

* Significant at the 5% level.** Significant at the 10% level.

NEED FOR STRICT REGULATORY FRAMEWORKS

The success of any contract farming scheme depends primarily on the degree of trust that is developed among the contracting partners. When trust is present, contracts can be very simple, including only those clauses that establish the general conditions under which the commercial relationship is to be developed. When trust is not present, contractual complexity is likely to grow, as more and more clauses tend to be added to safeguard the parties. In any case, it is always desirable that a legally binding instrument exists to govern the commercial relationship. It is also desirable that this instrument is backed by an appropriate legislative framework that ensures its validity and enforcement. More than simply protecting the transaction parties, a binding contract can bring additional benefits to those engaged in it. A case in point is the growing role of value chain financing mechanisms, whereby contracts are accepted as "de facto" collateral by lending institutions: the contract is seen as evidence that the parties belong to a value chain and for this reason, they have their credit worthiness improved.

THE LEGAL FRAMEWORK

Farming contracts, whether written or oral, should comply with the minimum legal requirements that apply in a particular country. At the same time, however, it is important to take into account prevailing practices and societal attitudes towards contractual obligations, because in almost all societies, these factors can produce an outcome that differs from the formal letter of the law. In some societies, for example, there may be an underlying assumption that contracts are intended to be respected only if certain factors remain constant. If climatic, political or personnel conditions should change, it may be considered socially acceptable for either party to disregard the contract, whatever the contract itself or the law may say on the subject.Local practice may also influence the decision as to how detailed a

contract should be, or whether it should be a formal contract or a more simple registration. Although there are examples of formal legal contracts that cover every eventuality, many contract farming arrangements, particularly in the developing world, are based on informal registrations. The Sugar Corporation, for example, has agreements with over 20,000 sugar-cane growers that are based on a comprehensive, legally binding document. Conversely, large Potato, Corporations involving more than thousands of farmers, rely only on verbal understandings between farmers and their sponsors. In the majority of cases, it is highly unlikely that a sponsor will take legal action against a smallholder for a breach of contract. The costs involved are inclined to be far in excess of the amount claimed, and legal action threatens the relationship between the sponsor and all farmers, not just those against whom action is being taken. Action by a farmer against a sponsor is similarly improbable. However, the improbability that a contract or agreement will be used as the basis for legal action does not mean that contracts or formal agreements should not be used. They can benefit both parties by clearly spelling out the rules of the relationship.As neither side is likely to seek a legal remedy through the courts, it is important that ways of resolving disputes are identified in the agreement. A body representing the sponsor, farmers and other interested parties could be established in some cases, while in others, a government agency might be the most appropriate forum. It is preferable that the contract farming industry regulates itself in order to offer a measure of protection for all participants. Participation of political nominees in such bodies should generally be avoided. Agreements between sponsors and contracted farmers are essentially voluntary undertakings and, in most cases, the two parties should control their own contract formulas and specifications. In some cases, however, there are advantages in having a single body managed by the industry to regulate a number of contract farming arrangements for the same commodity. A bright spot on the otherwise cloudy horizon is that the private sector is now looking at rural areas as a potentially important market and is keen on increasing its investments in the hinterland, thereby opening up opportunities for farmers. In this context, the private corporate sector is looking at contract farming to provide a proper linkage between the farm and the market.

BETTER PRICE FOR FARMERS

Farmers will get a better price and can avoid the market with all its fluctuations, they say. According to a company source, "*As of now, the local aggregator and the farmer determine the price. For the farmer, it works out well as he has a ready market and gets cash on the spot. We are studying how this works.*" Pepsi is keen on harnessing the agriculture/horticulture potential in these areas. Of late, the belt of Chitradurga, Davangere, Haveri, Bellary and Belgaum has seen a sudden increase in maize cultivation. According to the statistics provided by the Agriculture Department, Davangere had an yield of 7.9 lakh tonnes, followed by Belgaum with 3.37 lakh tonnes, Haveri 2.21 lakh tonnes, Chitradurga 1.88 lakh tonnes, and Bellary 1.41 lakh tonnes.

THE GLOOMY SIDE OF CONTRACT FARMING

It is a good augury that agricultural scientists have discussed the issue of contract farming at a time when supermarkets and food chains are threatening to drive out the small next door retail shops. Fears have been expressed in the meeting that the rejection rate of agricultural produce by retail chains was high. The farmers then have to bear the extra cost. As the tie-up between retail chains and farmers is in the infant stage, it will take some time for the farmers to ensure high quality in their farm produce. Hence, the supermarkets and retail chain stores should provide the required agricultural expertise and credit at a low rate of interest to the farmers. Contract farming in the country has not benefitted the farmers. Appropriate institutional arrangements, legal provisions and government intervention are needed to protect the interests of farmers, said a study conducted by an expert from Ahmedabad-based Indian Institute of Management (IIM-A). The study conducted by Sukhpal Singh of the IIM-A's Centre for Management in Agriculture noted "*Contract farming, in political economy, is one mode of capitalist penetration of agriculture for capital accumulation and exploitation of farming sector by the agribusiness companies.*" It said that new concept is the result of the recent developments in marketing, food habits, technology and agriculture in the new economic environment.

The entitled study 'Contract Farming for Agricultural Development' was commissioned by the Centre for Trade & Development (Centad), an initiative of Oxfam GB in India. The study noted contract farming is being practiced in India by MNCs like Cadbury in cocoa, PepsiCo in potato, chilies and groundnut, Unilever in tomato, chicory, tea and milk, ITC in tobacco, wood trees and oilseeds, and Cargill in seeds. There are also domestic corporates in the field like Ballarpur Industries, JK Papers and Wimco in eucalyptus and poplar trees, Green Agro Pack, VST Natural Products,

Global Green, Intergarden India, Kempscity Agro Exports and Sterling Agro in gherkins, United Breweries in barley, Nijjer Agro in tomato, Tarai Foods in vegetables, M Todd in mint, and Namdhari Seeds in seeds. There are also various government and semi- government agencies involved. Financial institutions and banks also assist contract farming. The new changing dynamics of contract farming was the consortium approach noted by the study.

It noted a general monopoly of corporate and contracts being loaded against the interests of farmers. It also dwelt on the problems faced by contract growers, particularly in Punjab and Haryana in case of potato. With an aim to mitigate the situation, the study suggested formation of "new generation of co-operatives" for increasing the bargaining power of contract growers.

The green revolution is a part of India's history. Grey revolution is the future. At least that's what's the blue print for agricultural reforms. Agricultural reforms being introduced in the name of increasing food production and minimizing the price risks for farmers will actually destroy the production capacity of the farm lands and lead to further marginalization of the farming communities. Encouraging contract farming, future trading in agriculture commodities, land leasing, forming land-sharing companies, allotment of homestead-cum-garden plots, direct procurement of farm commodities and setting up of special purchase centers' will drive out a majority of the 600 million farmers out of subsistence agriculture.

Already contract farming has done irreparable damage to agriculture in countries like the Philippines, Zimbabwe, Argentina and Mexico. Allowing direct procurement of farm commodities, setting up special markets for the private companies to mop up the produce, and to set up land share companies, are all directed at the uncontrolled entry of the multinational corporations in the farm sector. Coupled with the introduction of genetically modified crops, and unlimited credit support for the agribusiness companies, the focus is to strengthen the ability of the companies to take over the food chain. Significantly, the state governments have opposed the agriculture reforms, terming it as a recipe for the entry of multinational corporations in agriculture. Two years earlier, the state governments had opposed the government's plan to decentralize the food procurement system, terming it as an effort to dismantle the procurement structure.

CONCLUSION AND A WAY FORWARD

Contract Farming is not a solution to all the problems of agricultural production and marketing systems. But contract farming could be evaluated as a way of providing earlier access to credit, input, information and technology and product markets for the small scale farming structure. Contract farming might also be seen as a way or as a part of rural development and promoted to improve agricultural performance especially in India where productivity is lesser than many other developed countries. Moreover, the corporates, farmers and government must realize that the practice will not be sustainable if all the parties are not benefitted.

The theoretical bases of the transaction cost economics framework of the analysis of the resort to vertical coordination rather than through spot markets in transactions governance are quite on firm ground. Competing as well as complementary approaches also exist and are recognized. However, while the theoretical literature points to an array of alternative vertical coordination schemes according to the degree of hierarchical governance in transactions, the literature on the applications of contract farming in agriculture and in livestock production have dominantly concentrated on one form of coordination mechanism - the formal contract between and integrator company (contractor) and the farmer (contractee). The focus on formal contracts is directly linked to the growing importance given to the analysis of high-value agricultural supply chains in their role of responding to structural changes being brought about by the increasing globalization of agriculture and the emergence of supermarkets, and the concern on how smallholder producers in developing countries can be included in domestic and international trade, in a regime where standards on product quality and food safety are increasingly coming into play. Under these conditions, attention is given on how contract farming accomplishes a number of tasks related to the consistency in delivering a required volume of output, producing a product with particular quality attributes such as freshness, uniformity, texture and taste, among others. Other requirements may include that products are certified to have passed food safety standards, or that they have been produced in an environmentally friendly manner.

In terms of the effectiveness of contract farming in integrating smallholder livestock keepers in mainstream markets in developing countries, the literature reveals that in general, formal contracts between integrators and contract farmers tended to select the larger-scale producers. Under situation-specific conditions, however, where the dominant

production scale is small, integrators do have to contend with engaging into contract with smallholders, but screen them according to their physical and human capital, i.e., their capacity to deliver the required output.

The area of high-value products for exports and for supermarkets has traditionally not been the realm of a vast majority of smallholders. This is not expected to radically change in the near future -gauging from the distance between sophisticated capacities needed to meet formal standards for product quality and food safety and the capacity of smallholder livestock producers and the standards prevailing in informal market institutions which they rely upon to engage in trade with their products. On the other hand, there is that large part of domestic market demand for livestock products by significant sections of households in main urban centres as well as regional markets, toward which most smallholder production is directed. For these consumers, demand for qualitatively differentiated products is also expressed in terms of their willingness to pay a price premium to obtain livestock products with distinct quality characteristics - freshness, taste, flavor, texture, among others that are normally associated with non-industrial-type of livestock breeds or production processes.

The growth of such domestic markets for differentiated products, and the development of alternative institutional market arrangements that would more efficiently communicate information on product differentiation (quality, production process, food safety), and a system to guarantee credibility of such qualitative differences, should work to create value where it is sought. This should provide incentives for smallholders to create greater value in the activities that they currently undertake. At the same time, the development of such domestic market would also offer consumers of all income brackets a wider range of livestock products to choose from, not just between supermarket brands.

It was found that smallholders who were more likely to sell more and in markets that are outside the local area had lower transaction costs related to:

- Better knowledge of price in the market.
- No quality conflict with merchant.
- Higher confidence in merchant.
- Previously agreed contracts.
- Good road access.
- Timely price information.
- Membership in an institution.
- Little damage during transport.
- Selling the improved variety.
- Coordination of transportation with other producers.
- Knowledge .

Transaction costs, by definition, are transaction specific and vary from one household to the other. A thorough understanding of the cost of transacting can shed light on policy actions aimed at reducing these costs. Alternatively, an understanding of which smallholders are more likely to be able to reap the benefits of globalization may help target support efforts and better define the kind of support needed.

One limitation of the study is that all surveyed households are net sellers, which excludes those farmers who have not participated in these markets. Further, surveys collecting information on transaction costs should aim at having a mix of net sellers and buyers. An area of future research could be understanding the characteristics of transactions as well as the institutional governance related to specific transactions. A good example is the global value chains where increased trends in private voluntary standards is affecting smallholder transactions and the structure and characteristics of markets. The lack of proper information facing smallholders is a positive transaction cost, likely to affect their participation in those markets that demand products with the imposed standards.

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