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Research Article

CONTRACT FARMING SYSTEM FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT

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Abstract- The focus of this paper is to determine the likely factors that contract farming system is the best system for sustainable agricultural development. A contract is an agreement made between two or more parties enforceable by law. Well-managed contract farming is considered as an effective approach to help solve many of the market linkage and access problems for small farmers. This paper examines briefly its growth and status including the performance of different models of contract farming based on empirical studies. Its concludes that by entering into the contractual arrangement, the income level of the farmer and employment level in the rural economy has increased despite certain problems faced by the farmers like delayed payment, delay in procurement and low supply of agricultural inputs to them.

Keywords- Contract farming, Agricultural production, linkage

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Introduction

Contract farming can be defined as a system for the production and supply of agricultural produce under forward contracts, the essence of such contracts being a commitment to provide an agricultural commodity of a type, at a time and a price and in the quality required by known buyers, it basically involves four things: pre-agreed price, quality, quantity or acreage and time. Contract farming according to Singh (2005) is defined as a system whereby farmers or primary producers supply agriculture or horticulture produce under advance contracts, the essence of such arrangements being a commitment to provide an agriculture commodity of a type, at a specified time, price and in specified quantity to a known buyer. Contract farming exists between a farmer and a cooperative or processing organization, for example, to grow seeds, potatoes or vegetables etc. These are commodities, which are often brought in advance, and on a certain level quality. Contract farming represents an expanding and much suggested method of agro-industrial integration for developing economics. Agribusiness investment has grown through integrating the independent growers and farm families into new production complexes of the wide national and global economy by separating land ownership from the power to make land use decisions. Thus, business firms control large number of growers to produce the desired crops. The grower provides land and labour whereas the agribusiness firms control quantity, quality, credit, inputs, production methods, price, market access and timing of delivery. The global change towards the relationship between agriculture and industry, urban and rural areas are inextricably linked. Dynamics of forward and backward linkages of contractual services for a wider range of field operations between growers and company form a crucial part of the process of globalization [1]. There are three major players in the system of contract farming i.e. producers along with its agro climatic environments; consumers demand a particular/specialized product and the company with its technology and management. Assured marked for the farm produce motivates a farmer to enter into contract with company thus producers should be benefited, product of the company should be successful both in domestic and international markets and ultimately the demand of the consumers should be fully met and satisfied. Contact farming acts as a vehicle for the transfer of technology because it intends on changing land and crop rights induced by it [2]. Contract farming is generally successful in supplying credit, inputs, technology and market information to growers. It transfers production technology to growers and provides a more secure market outlet. Apart from production of desired raw produce directly linked to processing, the agribusiness firms wish to become the main supplier of seed and other inputs. They are developing weedicides that are specific to a particular seed variety that it would not harm. The farmers would be forced to depend exclusively on a package of seed, chemicals and fertilizers suggested by a particular agribusinesses multinational company. Over time, the concerned MNCs, by investing an enormous amount on R & D will do everything to make the peasants perpetually dependent on by producing new package of practices every few years. Food manufacturers need the detailed information like price, quality, timing of delivery etc. to meet the retailer's requirements especially for own brands lines which are popular. Thus, firms make contracts direct with producers cutting out the middlemen and they control a critical step from production to consumption. Such new demand drives technologies that are turning bulk commodities into tailor-made products. As consumers become better informed and more demanding, companies are consolidating in pursuit of new efficiencies and economics of sale [3].

Crop diversification and contract farming:

Agronomic and climatic factors favour wheat-rice crops over others. Production of rice-wheat cropping sequence has reached plateau and has done immense harm to ecology of North-west region of the country, Effecting soil health, depleting water table and having negative impact on the economy of the farmers as well. Farmer is always price responsive and is assured of better returns in market of his crop in contract farming. That is why farmer gets encouraged and enter into a contract production. To diversification of agriculture aimed to reduce area under rice –wheat rotation contract farming needs to be encouraged. Similar changes can be expected in different parts of the country for better returns with crop diversification [4].

Contract farming encourages private sector involvement:

The farmer would grow the crop and sell it to concerned State Agro food grain Corporation at a pre-determined contract rate and the latter will supply the same to that firm concerned. The Punjab Agro Food Grains Corporation Ltd. not only purchased seeds from reputed MNCs to contract farmers, but also will buy back the entire produce at pre-agreed price. This would enhance the high degree of private sector involvement in contract farming and concentration of foreign direct investment in agriculture and agro-industry. The role of concerned state Agro Food Grains Corporation Ltd. Is that of an integrated farming solutions provider and could play the role of nodal agency to ensure timely and remunerative price to farmers and assured supply of quality produce to the units. Corporates are forging alliances with state government for contract farming. New incentives from sector in precision farming and contract management of farm which must be linked to both domestic and external market through agro-processing zones, stimulating floriculture and horticulture. Hence the state government can shift some area under paddy wheat rotation to either cash crops like oilseeds, pulses etc by adopting contract farming and right mix of price incentives [5,6].

Price fixation models

Incentive price is given to farmers to meet extra cost incurred in producing the requisite quality of produce. Since the farmer has to take extra care to maintain the quality. Generally, three types of price fixation models are observed in contract farming in the country are:

Pepsi model

Pepsi model of price fixation is decided between producers under company. Farmer entered into contract production due to incentive price and assured market. The individual farmer is not able to bargain with company on equal footing. There are instances of breach of contract and end up in the court of law, since there is no arbitration agreement. This is the most exploitative model prevailing.

Tripartite model

Tripartite price model is generally followed for procuring quality raw material in agri-export zones for exporting the finished products. The procuring /processing firms make contracts with producer and price is decided by government agency after consultation with both the parties. None of the party can breach the contract and is liable to penalty in case of non-compliance. Contract is enforced by government agency.

Tamil Nadu(T.N.)Model

Tamil Nadu (T.N) is the only state in the country that has enacted Act on contract farming. In T. N. model the producer and company are free to set price as they mutually agreed upon. Once the price is discovered has to submit to enforcement officer of the government. Arbitration is a method of settling, out of court through independent party/person. Both parties are liable to comply with the final award of arbitrator.

Strengths and advantages of contract farming

The new agricultural policy envisages:

- One option for creating a role for price sector in agricultural development and extension.
- Acceleration of technology transfer,
- Increased private capital flows in agriculture,
- Assured markets for crops such as oilseeds, cotton, horticulture etc through contract farming system,
- Spot market purchases are fraught with uncertainties vis-à-vis quality, quantity and price.
- Advantage to farmer in terms of access to technology, supply of inputs and extension service thus modernizing the contract farming,
- Quality and health consciousness among consumers has increased who demand food products of certain specification.
- Contractors get guaranteed and steady source of supply, which allows investment at large scale.
- Contract farming is essential for entrepreneurial development.
- The small farmers can effectively participate when inputs are assured.
- Farmers get exposed to world class technology ie seed, inputs, monitoring etc
- Long term planning and investment is promoted.

Problems that beset contract farming

Contract farming is basically a way of allocation of risk between the firm and its farmers. This depends on bargaining power, availability of alternatives and access to information which are generally lacking with farmers.

- Small size of farmers land holding.
- Sometimes farmers tend to divert the produce to open market rather than supplying to processing firm when prices are high. The cost calculations of firm crumble. Similarly, in long duration plantation crops firms often fail to honour the contracts they know that farmers have no alternative but to sell the products to them.
- Normally firms select established rich farmers.
- Monoculture is encouraged.
- There is no uniform regulatory authority to ensure check unintended problems.
- Lack of comprehensive crop insurance scheme to protection against natural calamity.
- Less generation of employment, labour-saving farm practices, low level of commitment of corporates over rural development, lack of transparency and communication etc.
- Enforceability of the agreement, and standardization and operationalisation of contract farming agreements are the major bottlenecks plaguing contract farming ventures in India.

Some successful cases in India

Green revolution

Government of India has run the largest contract farming model the “Green revolution”. It included the supply of improved wheat varieties and hybrids of other crops. Subsidized fertilizer was made available and procurement of produce was guaranteed with minimum support price. Extension service was provided by ICAR and agricultural Universities. This was one sided contract and a farmer got used to it. Although food security was achieved but monoculture, over-fertilization soil degradation was out come over the period [7].

McDonald and McCainn Foods

McDonald’s is famous for French Fries or wedges. The right type of potatoes was found in traditional area of Gujarat State. Though India grows a lot of potatoes, these are not suitable for making wedges because they have high moisture content. They go limp very soon. The agro-climatic conditions like right soil, water availability, sunshine and other climatic conditions have been found suitable for growing the right size of tasty potatoes having low moisture content required for the French Fries. The farmers so for, were using age old techniques and low-quality seed. The farmers were gently nudged into accepting modern cultivation practices by demonstration and training to achieve better yield at lower costs. McDonald got the kind of potato it wanted. McCainn Foods, the world’s largest French Fries Company, which has partnered with McDonald’s to work with farmers in the state. It has started picking up the Gujarat potato to make its ‘Chatpatey’ potato wedges. This is the first time to MNC starts procuring potato from India.

There was potential for exports particularly to the Middle-East and Far East [8,9].

Hindustan Lever Ltd (HLL)Rallis and ICICI
Contract farming in wheat is being practiced in Madhya Pradesh by Hindustan Lever Ltd (HLL), Rallis and ICICI. Under the system, Rallis supplies agri-inputs and know-how, and ICICI finances (farm credit) the farmers.

Pepsi Foods Ltd.
Launching its agro-business in India with special focus on exports of value-added processed foods, Pepsi Foods Ltd. ('PepsiCo'hereafter) entered India in 1989 by installing an Rs. 22 crore state of-the-art tomato processing plant at Zahura in Hoshiarpur district. The PepsiCo model of contract farming, measured in terms of new options for farmers, productivity increases, and the introduction of modern technology, has been an unparalleled success. The company focused on developing region- and desired produce-specific research, and extensive extension services. It was thus successful in bringing about a drastic change in the Punjab farmers' production system towards its objective of ensuring supply of right produce at the right time in required quantities to its processing plant. Right from the beginning, PepsiCo knew that changing the mindset and winning the confidence of farmers would not be an easy task for outsiders. The company's unique partnership with PAU and PAIC fuelled its growth in Punjab. Similarly, PepsiCo planned a foray into contract farming in groundnut with the farmers of Punjab with the objective of producing export-quality, value-added groundnut such as roasted and salted peanuts, flavoured and coated peanuts, and peanut butter. Using plastic mulch groundnut (PMG) technology sourced from China has enabled PepsiCo to take up two crops in a year - one in the *kharif* and the other in the *rabi* season. The company has demonstrated yields of 3.0 and 4.0 tons per hectare on field trials for *kharif* and *rabi* crops respectively, much above the national average of 1.0 ton/ha [10-12].

Key elements of PepsiCo's success:
- ⇒ Core R&D team
- ⇒ Execution of technology transfer through well-trained extension personnel
- ⇒ Supply of all kinds of agricultural implements free of cost to contracted farmers
- ⇒ Supply of timely and quality farm inputs on credit
- ⇒ Effective adoption/use of modern communication technology like pagers for communication with field executives
- ⇒ Regular and timely payment to contracted farmers through computerized receipts and transparent system
- ⇒ Maintenance of perfect logistics system and global marketing standards.

Appachi's Integrated Cotton Cultivation:
Appachi Cotton Company (ACC), the ginning and trading house from Pollachi (Coimbatore district of Tamil Nadu, India) hit theheadlines in May 2002 for the street play it employed to encourage farmers in the Nachipalayam village in Kinathukadavu block of Coimbatore to sow cotton seeds in their fields. ACC caters to top-bracket, quality-conscious clients from the textile industry in India and abroad, and their client specific operation has won them laurels. ACC is the only private ginner in the country to have successfully entered backward and forward integration between the 'grower' (farmer) and the 'consumer' (textile units). The Appachi formula ensured that its farmer members never went short of money and materials during the crucial 100 days of the crop cycle. The contract assured the farmers easy availability of quality seeds, farm finance at an interest rate of 12% per annum, door delivery of unadulterated fertilizers and pesticides at discounted rates, expert advice and field supervision every alternate week, and a unique selling option through a MoU with the coordinating agency (ACC)

Key principles of the ACC model
- ⇒ One village, one group (SHG)
- ⇒ One village, one variety/hybrid of cottonseed
- ⇒ Crop loan at 12% per annum on Group's guarantee
- ⇒ Door delivery of quality inputs at discounted rates
- ⇒ Cotton crop insurance
- ⇒ Synchronized sowing
- ⇒ Integrated crop management through competent Farm Service Centres
- ⇒ Contamination control measures from farm to factory Assured buyback of final produce from farmers' doorsteps
- ⇒ The sponsor (ACC) plays the role of a perfect coordinator/facilitator between the producer and the consumer.

Ugar Sugar's experience with barley:
Farmers surrounding Ugar Sugarin Belgaum, who had been cultivating sugar under intensive irrigation found themselves with the problem of salinity in soils. Ugar Sugar took this opportunity to begin creating awareness among the farming community about alternative crops suitable for saline soils. Of these, barley was known to give economic yields of good quality in saline soils. The company assured the farmers of a market for their produce if they agreed to grow barley, as well as the required technical and input support. All this happened way back in 1997, when the company required5000 tons of barley annually for its malt unit. At that point of time, barley was cultivated on a commercial scale only in the northern parts of India, which meant huge transportation costs for the company to source from there. Furthermore, such lots carried a mixture of feed and malt grade barley, which meant no surety of consistent quality raw material. The company had no land of it sown to start barley production near its malt plant. This led to the birth of Ugar Sugar's unique contract farming system for barley production.

Ugar's barley contract farming model: Key elements
- ⇒ The company supplies genetically pure seed on credit to the contracted farmers without interest.
- ⇒ The price of barley seeds supplied for sowing and the final produce that is procured by the company is the same i.e. costof the seed is same as that of the pre-agreed price of barley. Hence, the quantity of seed supplied for sowing is recovered from the time of procurement of the produce.
- ⇒ A technical person from the company visits the farmers' fields at least four times in a crop cycle, giving free technical assistance.
- ⇒ The company supplies seed at the sowing points in farmers' fields, and the final produce is procured from the fields at the company's transportation cost.

Under the contract, it is obligatory on part of both the contracting farmer and the company to sell and buy respectively the entire contracted quantity at the Pre-agreed price.

Conclusion
To ensures food and nutrition security to a population of over a billion, raw material for its expanding industrial base and equitable rewarding system for the farming community, 'commitment driven' contract farming is no doubt a viable alternative farming model, which provides assured and reliable input service to farmers and desired farm produce to the contracting firms. Several Indian and multinational companies have already begun such initiatives in India and have demonstrated repeated success. The successful cases should encourage the rest of the producing and the consuming enterprises to emulate them for mutual benefits in specific and Indian agriculture in general

Research Category: Sustainable Agricultural Development

Abbreviations:
PMG: plastic mulch groundnut
SHG: self-help group

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