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A COMPARISON OF FARMERS' SUSTENANCE IN CONTRACT FARMING AND VARIOUS AGRICULTURE SYSTEMS

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ABSTRACT:

Contract farming (CF) can be defined as agricultural production carried out according to an agreement between a buyer and farmers, which establishes conditions for the production and marketing of a farm product or products. Typically, the farmer agrees to provide agreed quantities of a specific agricultural product. These should meet the quality standards of the purchaser and be supplied at the time determined by the purchaser. In turn, the buyer commits to purchase the product and, in some cases, to support production through, for example, the supply of farm inputs, land preparation and the provision of technical advice. This study is an attempt to make a comparison of farmers' sustenance with respect to contract farming and other forms of conventional agricultural or farming systems. The study is based on secondary sources of data mainly relying upon literature and published sources of government institutions. The study helps in addressing the challenges in contract farming and conventional farming systems and chalks out the key differences between them while addressing he sustenance issues of the agrarian community.

Key Words: Contract Farming, Conventional Farming, Sustenance

INTRODUCTION:

Contract farming is a prominent and growing phenomenon in Indian agriculture. Globalization, liberalization and the growth of organized retail have intensified the role of the agribusiness firms who are entering into contract with farmers for the purchase of raw materials. Contract farming has been receiving increasing attention from agribusiness firms as well as from the government for more than a decade. The National Agricultural Policy 2000 announced by the Government of India, seeks to promote contract farming by involving the private sector to accelerate technology transfer, capital inflow and assured marketing of farm produce.

Since the past decade contract farming has emerged as an alternative institutional innovation in Indian agriculture to reduce the uncertainties faced by both the farmer and the firm. The logic behind promoting contract farming is the expected increase in agricultural productivity, employment and income for the farmer. Contract farming is an intermediate form of industrial organisation, standing between the spot market and vertical integration in the degree of authority relationships between the grower and user of the crop. In spot markets, growers and processors meet at a time and agree on price and delivery immediately. At the other extreme is vertical integration, where the growers and the users of the crop are within the same firm. Hence, crop production is fully coordinated with processing and marketing. Contract farming is a situation where growers and users of the crop are different. It is a way of organising agricultural production whereby farmers are obliged to supply their produce to agro-enterprises in accordance with conditions specified in written or oral agreement. In the strict sense, it refers to “an alternative market, which establishes an agreement (formal or informal) between grower(s) and firm(s) (exporters, processors, retail outlets, or shippers, for example) to produce and to supply an agricultural commodity under forward contract”. The contract basically includes four things – pre-agreed price, quality, quantity or acreage (maximum and minimum) and time.

Contract farming has emerged as the preferred mechanism through which an agri-business can directly deal with a farmer without any middlemen. With rising urban middle class which is diet conscious, rising demand for diverse variety of food products, and increased investment in agricultural retailing companies interested in investing in agriculture to provide for such market demands are increasing. In India, we have previous models of contract farming such as PepsiCo who have successfully tried contract farming and are still in this business.

REVIEW OF LITERATURE:

Roy (1963) refers to contractual arrangement between farmers and other firms, whether oral or written, specifying one or more conditions of production and/or marketing of an agricultural product.

Ghee and Dorall (1992) argue that contract farming has been promoted over the past 30 years as an institutional innovation to improve agricultural performance in less developed countries sometimes as a key element of rural development and/or settlement projects.

Bellemare (2018) used data for more than 12 cash and food crops in Madagascar, showing that farmers under contract had higher income from the contracted crop but lower income from other sources, because producing the crop under contract required more labour and thus reduced farmers’ participation in off-farm activities.

Ruml & Qaim (2020) argue that farmers with a simple marketing contract have the same input intensity and productivity as farmers without a contract, whereas resource-providing contracts are associated with larger input investments and higher yields These findings suggest that contract type matters in a capital-intensive sector.

OBJECTIVES OF CONTRACT FARMING:

- To increase and stabilize average remunerations to the agriculture sector which is reeling under stress, disguised unemployment, low output.
- To increase market- farming connection with the market focusing on crop selection patterns and influencing them for the benefit of both farmer and buyer.
- To increase private investment in debt-ridden agriculture.
- To connect the Indian farm sector to the global value chain of food processing and sale.
- To use the excess labour in gainful employment opportunities in Agri-value addition processes.
- To minimize the seasonality of agricultural employment and provide for year-round employment opportunities.
- To reduce social phenomena like rural-urban migration.
- To reduce rural-agricultural population poverty.
- Increase the quality of rural economy, formalize it, and in turn improve quality of life in rural areas.
- Promotion of entrepreneurial skills and setting up small scale industries based on agro-food products in rural areas.
- It reduces the load on the central and state-level procurement system.

SALIENT FEATURES OF CONTRACT FARMING:

- Creation of new markets
- Economies of scale
- Efficiency
- Higher quality standards
- Inculcation of modern technologies
- Minimizing transactional costs
- Sharing of risks

LEGAL STATUS OF CONTRACT FARMING IN INDIA:

- As agriculture is a state subject and agricultural marketing comes under the purview of the State Agricultural Produce Marketing Committees.
- For long, there has been a compulsion on farmers to sell farm produce in designated Mandis, APMCs only.
- The Government has been actively advocating agricultural marketing reforms through model APMC acts.
- Contract Farming has been regulated in India under the outdated Indian Contract Act, 1872 which contains many provisions relating to contract farming.
- The Model APMC Act, 2003 also had provisions for contract farming such as Direct buying from farmers by farm processors, exporters, graders, packers, etc.

- The Model APMC Act, 2003 also sought to bring in regulation and promotion along with dispute resolution.
- Around 20 states have consequently amended their APMC laws to provide for contract farming while Punjab has a separate law on contract farming.
- The model contract farming Act, 2018 seeks to establish a balanced framework for the contractual parties.

The Government is keen on turning the ongoing crisis into an opportunity in long waited structural reforms. The agricultural sector forms an important part of those reforms. The contract farming has been on the list of agricultural reforms along with the agricultural market reforms. Though the government has presented a possible policy initiative, no document has yet been revealed, so it needs to be seen what the government offers for contract farming. There are issues that need to be discussed such as enforceability of contracts, quality inspection of produce, etc. The states' response to the central initiative is also important as agriculture comes under the state list.

PROSPECTS FOR FARMERS IN CONTRACT AND NON CONRACT 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.

Provision of inputs and production services

Many contractual arrangements involve considerable production support in addition to the supply of basic inputs such as seed and fertilizer. Sponsors may also provide land preparation, field cultivation and harvesting as well as free training and extension. This is primarily to ensure that proper crop husbandry practices are followed in order to achieve projected yields and required qualities. There is, however, a danger that such arrangements may lead to the farmer being little more than a labourer on his or her own land.

It is often difficult for small-scale farmers outside the contract-farming context to gain access to inputs. In many countries a vicious circle has developed whereby the low demand for inputs provides no incentive for the development of commercial distribution networks and this, in turn, further adversely affects input availability and use. Contract farming can help to overcome many of these problems through bulk ordering by management.

Access to credit

The majority of smallholder producers experience difficulties in obtaining credit for production inputs. Contract farming usually allows farmers access to some form of credit to finance production inputs. In most cases it is the sponsors who advance credit through their managers. However, arrangements can be made with commercial banks or government agencies through crop liens that are guaranteed by the sponsor, i.e. the contract serves as collateral.

The tendency of certain farmers to abuse credit arrangements by selling crops to buyers other than the sponsor (extra-contractual marketing), or by diverting inputs supplied by management to other purposes, has caused some sponsors to reconsider supplying most inputs, opting instead to provide only seeds and essential agrochemicals.

Introduction of appropriate technology

New techniques are often required to upgrade agricultural commodities for markets that demand high quality standards. New production techniques are often necessary to increase productivity as well as to ensure that the commodity meets market demands. However, small-scale farmers are frequently reluctant to adopt new technologies because of the possible risks and costs involved. They are more likely to accept new practices when they can rely on external resources for material and technological inputs. Nevertheless, the introduction of new technology will not be successful unless it is initiated within a well-managed and structured farming operation. Private agribusiness will usually offer technology more diligently than government agricultural extension services because it has a direct economic interest in improving farmers' production.

Skill transfer

The skills the farmer learns through contract farming may include record keeping, the efficient use of farm resources, improved methods of applying chemicals and fertilizers, a knowledge of the importance of quality and the characteristics and demands of export markets. Farmers can gain experience in carrying out field activities following a strict timetable imposed by the extension service. In addition, spillover effects from contract farming activities could lead to investment in market infrastructure and human capital, thus improving the productivity of other farm activities. Farmers often apply techniques introduced by management (ridging, fertilizing, transplanting, pest control, etc.) to other cash and subsistence crops.

Guaranteed and fixed pricing structures

The returns farmers receive for their crops on the open market depend on the prevailing market prices as well as on their ability to negotiate with buyers. This can create considerable uncertainty which, to a certain extent, contract farming can overcome. Frequently, sponsors indicate in advance the price(s) to be paid and these are specified in the agreement. On the other hand, some contracts are not based on fixed prices but are related to the market prices at the time of delivery. In these instances, the contracted farmer is clearly dependent on market volatility.

Access to reliable markets

Small-scale farmers are often constrained in what they can produce by limited marketing opportunities, which often makes diversification into new crops very difficult. Farmers will not cultivate unless they know they can sell their crop, and traders or processors will not invest in ventures unless they are assured that the required commodities can be consistently produced. Contract farming offers a potential solution to this situation by providing market guarantees to the farmers and assuring supply to the purchasers.

Even where there are existing outlets for the same crops, contract farming can offer significant advantages to farmers. They do not have to search for and negotiate with local and international buyers, and project sponsors usually organize transport for their crops, normally from the farmgate.

Illustration: Effect of assured markets - Tomato production in India

Hindustan Lever issued contracts to 400 farmers in northern India to grow selected varieties of tomatoes for paste. A study of the project confirmed that production yields and farmers' incomes increased as a result of the use of hybrid seeds and the availability of an assured market. An analysis of the yields and incomes of the contracted farmers compared with farmers who grew tomatoes for the open market showed that yields of the farmers under contract were 64 percent higher than those outside the project.

PROBLEMS FACED BY FARMERS:

For farmers, the potential problems associated with contract farming include:

- Increased risk;
- Unsuitable technology and crop incompatibility;
- Manipulation of quotas and quality specifications;
- Corruption;
- Domination by monopolies; and
- Indebtedness and overreliance on advances.

These potential problems can usually be minimized by efficient management that consults frequently with farmers and closely monitors field operations.

Increased risk

Farmers entering new contract farming ventures should be prepared to balance the prospect of higher returns with the possibility of greater risk. Such risk is more likely when the agribusiness venture is introducing a new crop to the area. There may be production risks, particularly where prior field tests are inadequate, resulting in lower-than-expected yields for the farmers. Market risks may occur when the company's forecasts of market size or price levels are not accurate. Considerable problems can result if farmers perceive that the company is unwilling to share any of the risk, even if partly responsible for the losses. In Thailand, for example, a company that contracted farmers to rear chickens charged a levy on farmers' incomes in order to offset the possibility of a high chicken mortality rate. This was much resented by the farmers, as they believed that the poor quality of the day-old chicks supplied by the company was one reason for the problem.

Unsuitable technology and crop incompatibility

The introduction of a new crop to be grown under conditions rigorously controlled by the sponsor can cause disruption to the existing farming system. For example, the managers may identify land traditionally reserved for food crops as the most suitable for the contracted crop. Harvesting of the contracted crop may fall at the same time as the harvesting of food crops, thus causing competition for scarce labour resources. Particular problems may be experienced when contract farming is related to resettlement programmes. In Papua New Guinea, for example, people from the Highlands were resettled in coastal areas to grow oil palm and rubber. This required the farmers, who were traditionally sweet potato eaters, to learn cultivation techniques for new food crops and to adapt their dietary practices accordingly.

Two factors should be considered before innovations are introduced to any agricultural environment. The first is the possible adverse effect on the social life of the community. The second factor is the practicality of introducing innovations or adaptations. The introduction of sophisticated machines (e.g. for transplanting) may result in a loss of local employment and overcapitalization of the contracted farmer. Furthermore, in field activities such as transplanting and weed control, mechanical methods often produce less effective results than do traditional cultivation methods. Field extension services must always ensure that the contracted crop fits in with the farmer's total cropping regime, particularly in the areas of pest control and field rotation practices.

Manipulation of quotas and quality specifications

Inefficient management can lead to production exceeding original targets. For example, failures of field staff to measure fields following transplanting can result in gross overplanting. Sponsors may have unrealistic expectations of the market for their product or the market may collapse unexpectedly owing to transport problems, civil unrest, change in government policy or the arrival of a competitor. Such occurrences can lead managers to reduce farmers' quotas. Few contracts specify penalties in such circumstances. In some situations management may be tempted to manipulate quality standards in order to reduce purchases while appearing to honour the contract. Such practices will cause sponsor-farmer confrontation, especially if farmers have no method to dispute grading irregularities. All contract farming ventures should have forums where farmers can raise concerns and grievances relating to such issues.

Corruption

Problems occur when staff responsible for issuing contracts and buying crops exploits their position. Such practices result in a collapse of trust and communication between the contracted parties and soon undermine any contract. Management needs to ensure that corruption in any form does not occur. On a larger scale, the sponsors can themselves be dishonest or corrupt. Governments have sometimes fallen victim to dubious or "fly-by-night" companies who have seen the opportunity for a quick profit. Techniques could include charging excessive fees to manage a government-owned venture or persuading the government and other investors to set up a new contract farming company and then sell that company overpriced and poor quality processing equipment. In such cases farmers who make investments in production and primary processing facilities run the risk of losing everything.

Domination by monopolies

The monopoly of a single crop by a sponsor can have a negative effect. Allowing only one purchaser encourages monopolistic tendencies, particularly where farmers are locked into a fairly sizeable investment, such as with tree crops, and cannot easily change to other crops. On the other hand, large-scale investments, such as for nucleus estates, often require a monopoly in order to be viable. In order to protect farmers when there is only a single buyer for one commodity, the government should have some role in determining the prices paid.

Indebtedness and overreliance on advances

One of the major attractions of contract farming for farmers is the availability of credit provided either directly by the company or through a third party. However, farmers can face considerable indebtedness if they are confronted with production problems, if the company provides poor technical advice, if there are significant changes in market conditions, or if the company fails to honour the contract. This is of particular concern with long-term investments, either for tree crops or for on-farm processing facilities. If advances are uncontrolled, the indebtedness of farmers can increase to uneconomic levels. In one venture "compassionate" advances for school fees, weddings and even alimony resulted in many farmers receiving no payments at the end of the season. Dropout rates for farmers in that particular project were high, as they thought contract farming did not pay.

ADVANTAGES FOR SPONSORS

Companies and government agencies have a number of options to obtain raw materials for their processing and marketing activities. The benefits of contract farming are best examined in the light of the other alternatives, namely spot-market purchases and large-scale estates. The main potential advantages for sponsors can be seen as:

- Political acceptability;
- Overcoming land constraints;
- Production reliability and shared risk;
- Quality consistency; and
- Promotion of farm inputs.

Political acceptability

It can be more politically expedient for a sponsor to involve smallholder farmers in production rather than to operate plantations. Many governments are reluctant to have large plantations and some are actively involved in closing down such estates and redistributing their land. Contract farming, particularly when the farmer is not a tenant of the sponsor, is less likely to be subject to political criticism. In recent years many countries have seen a move away from the plantation system of production to one where smaller-scale farmers grow crops under contract for processing and/or marketing.

Overcoming land constraints

Most of the world's plantations were established in the colonial era when land was relatively plentiful and the colonial powers had few scruples about either simply annexing it or paying landowners minimal compensation. That is, fortunately, no longer the situation. Most large tracts of suitable land are now either traditionally owned, costly to purchase or unavailable for commercial development. Moreover, even if it were possible for companies to purchase land at an affordable price, it would rarely be possible to purchase large enough parcels of land to offer the necessary economies of scale achieved by estate agriculture. Contract farming, therefore, offers access to crop production from land that would not otherwise be available to a company, with the additional advantage that it does not have to purchase it.

Although it may be considered that plantation agriculture on a large scale is generally more cost-effective than small-scale production, that is not always the case. Estate production involves both direct labour costs and indirect costs of labour in terms of hiring, training and supervising. It is often necessary to provide accommodation and meals for estate workers. As noted above, land can be very expensive and difficult to obtain, thus contract farming can often be competitive, particularly for crops where large-scale economies of scale are difficult to achieve. As already noted, experience in some developing countries indicates that plantation models of crop production can evolve successfully into cost-effective smallholder contract farming ventures.

Production reliability and shared risk

The failure to supply agreed contracts could seriously jeopardize future sales. Plantation agriculture and contract farming both offer reasonable supply reliability. Sponsors of contract farming, even with the best management, always run the risk that farmers will fail to honour agreements. On the other hand, plantation agriculture always runs the risk of labour disputes. In the case of horticultural production some companies do prefer estate rather than contracted production.

Working with contracted farmers enables sponsors to share the risk of production failure due to poor weather, disease, etc. The farmer takes the risk of loss of production while the company absorbs losses associated with reduced or non-existent throughput for the processing facility. Where production problems are widespread and no fault of the farmers, sponsors will often defer repayment of production advances to the following season.

Both estate and contract farming methods of obtaining raw materials are considerably more reliable than making purchases on the open market. The open market is rarely an acceptable option for organizations that have significant assets tied up in processing facilities and need to have guaranteed quantities of raw material to justify their investment. For example, it is hardly ever an acceptable option for companies who make regular shipments of horticultural produce to supermarkets and for export. Companies must ensure that crops are harvested and sold on a carefully scheduled and consistent basis: a factor that is normally assured under a well-directed contract farming scheme.

Quality consistency

Markets for fresh and processed agricultural produce require consistent quality standards. Moreover, these markets are moving increasingly to a situation where the supplier must also conform to regulatory controls regarding production techniques, particularly the use of pesticides. For fresh produce there is an growing requirement for "traceability", i.e. suppliers to major markets increasingly need to be confident of identifying the source of production if problems related to food safety arise. Both estate and contracted crop production require close supervision to control and maintain product quality, especially when farmers are unfamiliar with new harvesting and grading methods. Often, large numbers of crops within a single project have to be transplanted, harvested and purchased in a uniform manner so as to achieve product consistency.

Distinct varieties of produce in the desired quality and quantities are often not available on the open market. For example, a multinational that invested in the Indian State of Punjab found that the local varieties of tomatoes were unsuitable for processing into paste or ketchup. This was one of the factors that made it decide to go into contract farming.

Agribusinesses producing for markets demanding high quality standards, such as fruits and vegetables for export, often find that small-scale farmers and their families are more likely to produce high-quality products than farmers who must supervise hired labour.[8] Also contract farming makes quarantine controls more manageable. It is easier for quarantine authorities to inspect a limited number of exporters of a single commodity, who closely supervise farmers, than to inspect hundreds, or sometimes thousands, of individual producers selling through open markets. Much of the production of "organic" foods is being done on contract, as an integrated operation facilitates a clear crop identity from farmer to retailer. In some highly sophisticated operations, containers are now being loaded on the farm for direct delivery to the supermarket.

Promotion of farm inputs

An example of an unusual but, nevertheless, interesting benefit for sponsors comes from the Philippines. A feed milling company experienced difficulties in marketing its feed, which was more expensive than that produced by competing companies. To solve this problem it developed rearing schemes for pigs and poultry under contract in order to provide a market outlet for its feeds and to demonstrate their performance to other farmers living near the contracted farmers.

PROBLEMS FACED BY SPONSORS

The main disadvantages faced by contract farming developers are:

- Land availability constraints;
- Social and cultural constraints;
- Farmer discontent;
- Extra-contractual marketing; and
- Input diversion.

Land availability constraints

Farmers must have suitable land on which to cultivate their contracted crops. Problems can arise when farmers have minimal or no security of tenure as there is a danger of the sponsor's investment being wasted as a result of farmer-landlord disputes. Difficulties are also common when sponsors lease land to farmers. Such arrangements normally have eviction clauses included as part of the conditions. Some contract farming ventures are dominated by customary land usage arrangements negotiated by landless farmers with traditional landowners. While such a situation allows the poorest cultivator to take part in contract farming ventures, discrete management measures need to be applied to ensure that landless farmers are not exploited by their landlords. Before entering into contracts, the sponsor must ensure that access to land is secured, at least for the term of the agreement.

Social and cultural constraints

Problems can arise when management chooses farmers who are unable to comply with strict timetables and regulations because of social obligations. Promoting agriculture through contracts is also a cultural issue. In communities where custom and tradition play an important role, difficulties may arise when farming innovations are introduced. Before introducing new cropping schedules, sponsors must consider the social attitudes and the traditional farming practices of the community and assess how a new crop could be introduced. Customary beliefs and religious issues are also important factors.

Farmer discontent

A number of situations can lead to farmer dissatisfaction. Discriminatory buying, late payments, inefficient extension services, poor agronomic advice, unreliable transportation for crops, a mid-season change in pricing or management's rudeness to farmers will all normally generate dissent. If not readily addressed, such circumstances will cause hostility towards the sponsors that may result in farmers withdrawing from projects. This emphasizes the importance of good management to the success of contract farming.

Extra-contractual marketing

The sale of produce by farmers to a third party, outside the conditions of a contract, can be a major problem. Extra-contractual sales are always possible and are not easily controlled when an alternative market exists. Sponsors themselves can sometimes be a cause of extra-contractual practices.

Managers must be aware of produce being sold outside the project and also be aware of produce from outside being channelled into the buying system. This occurs when non-contracted farmers take advantage of higher prices paid by an established sponsor. Non-contracted crops are filtered into the buying system by outside farmers through friends and family who have crop contracts. Such practices make it difficult for the sponsor to regulate production targets, chemical residues and other quality aspects.

Input diversion

A frequent problem is that farmers are tempted to use inputs supplied under contract for purposes other than those for which they were intended. They may choose to use the inputs on their other cash and subsistence crops or even to sell them. Clearly this is not acceptable to the sponsor, as the contracted crop's yields will be reduced and the quality affected. Steps to overcome such problems include improved monitoring by extension staff, farmer training and the issuing of realistic quantities of inputs. However, the knowledge that a contract has the advantages of technical inputs, cash advances and a guaranteed market usually makes the majority of farmers conform to the agreement. Unless a project is very poorly managed, input diversion is usually an annoyance rather a serious problem.

OBSERVATIONS:

The following differences were observed between farms operating with the contract and non-contract farming models:

- The average farm size of the contract farming model farms is usually greater than that of non-contract model farms which leads to more efficiency on account of economies of scale. Also, Unit crop cost is lower for contract farming model farms.
- Although there is no much significant difference between the two types of farming models with respect to production procedures and utilization of machinery and tools, the contract farming model utilizes more technological innovations, and is more efficient with their use of labour, use more inputs per unit area (seedling, fertilizer, chemical) and produce more crop per unit area.
- There is a statistically significant difference between the two types of farming in terms of the number of seedlings, fertilizer fees, labour wages and amount of production. Similar findings were also reported in studies which examined other aspects of contract farming, such as the level of physical input used and unit crop cost, as well as gross margin and net profit earned per unit area. (Fusun & Aktaturk, 2004)
- In contract farming model has some advantages such as price and marketing guarantees for their crops, receiving material and cash support and getting technical information support, also had some disadvantages. Contracts are also written so as to provide the least loss to factories and greater losses to farms. Another disadvantage is that crops are often bought from non-contract farming model farms rather than contract farms

These disadvantages of the contract farming model can be minimized of eliminated by improvements in the model with consideration given to following:

- Contracts should be prepared by direct (face-to-face) negotiations between farmers and factories, with farmers organizations established to assist farmers in the negotiating process.
- Instead of contracts which fix product price, there should be a transition towards determining prices at the time of crop delivery, which would factor in changes to input prices.
- In order to prevent losses to the farmer originating from late payment for crops a program should be introduced for delayed interest payments.
- Steps to curb or discourage the practice of farms operating on a non-contract basis might be useful.

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