The practice of contract farming in India: making it inclusive and effective

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Agricultural marketing reforms are central to changing the agricultural/agribusiness sector. The Amended APMC Act in India, which permitted contract farming, direct purchase from farmers, and setting up of private wholesale markets, was seen as the way forward to kick start the process of modernizing markets and giving better market access and choice to primary producers. The practice of contract farming, which is one of the new institutions as a result of the policy reforms, leaves much to be desired in India's smallholder context as there is exclusion of small farmers who make up most of the farming population. In this context, this paper examines the extent and nature of small producer exclusion, reasons thereof, and various policy options to encourage more inclusive and effective contract farming so that these mechanisms could be leveraged for inclusive and market-oriented sustainable agricultural development.

Keywords: contract farming, India, small producers, economic exclusion, inclusion, state

WITH THE GRADUAL WITHDRAWAL of the state from agricultural markets – due to the Amendment of the Agricultural Produce Marketing Committee (APMC) Act in 2003 in India under which private wholesale markets and contract farming (henceforth CF) with, and direct purchase from, farmers are legal – and emphasis on the role of the private sector for bringing efficiency and growth to the sector, space is being provided to corporate and multinational agencies in the form of opening up of procurement, wholesale trade, and retailing. The mechanisms being allowed and promoted are CF, direct purchase, public–private partnerships, food retailing, and food wholesaling. It is argued that the sources of trouble in the farm sector are in the supply chains of the sector which can be improved by corporate involvement and investments. In this policy environment and in the context of low growth of the farm sector and prevalence of farmer distress in large parts of India, domestic corporates have made forays into the food retail sector and in perishable produce CF or direct purchase from farmers during the last decade, and many global supermarket retailers (Metro, Walmart, Tesco, Carrefour) have entered the wholesale cash and carry sector (permitted since 1997). Since late 2012, foreign direct investment (FDI) in multi-brand retail trade has been permitted up to 51 per cent of the total equity and 100 per cent of equity in single brand retail trade (the latter was 51 per cent only since 2010). Further, in India, international trade and quality issues such as sanitary and phyto-sanitary (SPS) measures; organic trade, fair trade, and ethical trade; CF

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promotion by the union and the state agencies; banking and input industry push for CF; farming crisis and reverse tenancy; and failure of traditional cooperatives, are likely to help spread CF across crops and regions as they provide new space to this arrangement in the context of withdrawal of the state from the agricultural space.

Efficient agricultural markets are a must for better export and domestic value chain performance. CF is an important aspect of the amended APMC Act, 2003, besides direct purchase from growers. CF can be defined as a system for the production and supply of agricultural and allied produce by farmers/primary producers under advance contracts to known buyers. The essence of such arrangements is the commitment to provide an agricultural commodity/crop of a specified variety/quality, at a specified time, price, and place, and in a specified quantity to a known buyer. Promoting high-value/new/marketable crops/technology transfer, lowering cost of production (either by raising yields or cutting costs directly), raising returns by assured market/prices/value addition, and lowering transaction costs are part of the rationale for use of the CF mechanism for farmer benefit and in turn agricultural development. Due to the improved efficiency (coordination and quality control in a vertical system) and equity (smallholder inclusion as against corporate/captive farming) that arises from this hybrid system, it has been promoted aggressively in the developing world by various agencies. India is no exception. CF is essentially being seen as a privatized version of India's agricultural support system involving research, extension, credit, procurement, and marketing, which was earlier supported by the state (Witsoe, 2006). It has also been and is being used as a vehicle for agricultural diversification in some countries (Benziger, 1996) and in some parts of India (Singh, 2002, 2004; Kumar, 2006). CF is also seen as a way to reduce costs of cultivation as it can provide access to better inputs and more efficient production methods. The increasing cost of cultivation was the reason for the emergence of CF in Japan and Spain in the 1950s (Asano-Tamanoi, 1988) and in the Indian Punjab in the early 1990s (Singh, 2002).

Given the relevance of CF for the vast majority of small farmers in India and the fact that firms cannot legally undertake corporate farming (own farm production on owned or leased land) in India due to the Ceilings on Land Holdings Act and the legal restrictions on leasing of land at the state (provincial) level, it is important to define an appropriate place for smallholder CF in terms of crops and markets. Though CF has been practised in India in food and allied crops across states for the last two decades, there is concern over its limited spread and benefits to growers, especially small ones who are generally not part of the CF arrangements except in a few crops. It is important to note that 83.5 per cent of India's operated landholdings are below 2 ha each (Singh, 2012b). Even in a traditional export plantation crop like coffee, a majority of the area (53 per cent) is with farms of under 4 ha who along with medium farms account for 60 per cent of India's coffee production (Neilson and Pritchard, 2009). In this context, this paper examines the mechanisms for making CF inclusive and effective, serving the purpose for which it was brought in. The next section examines the evidence on smallholder exclusion, followed by a section on CF related policy options, and a conclusion.

Small producers and CF

As part of the linking farmers with markets agenda, CF is seen as an important mechanism and it is argued that it gives access to additional sources of capital (credit), and a more certain price to farmers by shifting a part of the risk of adverse price movement to the buyer (Simmons et al., 2005). Farmers also get access to new technology and inputs. In fact, CF is seen as an institutional innovation for agricultural development (Weatherspoon et al., 2001). It is also seen as an important component of inclusive business models for smallholder development (Kirsten and Sartorius, 2002; Vorley et al., 2009). Some others recommend CF as the only way to make small-scale farming competitive as the services provided by contracting agencies cannot be provided by any other agency (Eaton and Shepherd, 2001). It is generally undertaken where there is market failure expressed in perishability of produce, quality of produce, and technicalities of producing a new/different product (Bijman, 2008).

There is no doubt that in general, including in India, CF leads to higher net returns for farmers compared with those under non-contract situations, though production cost is higher under CF (Tripathi et al., 2005; Ramaswami et al., 2006; Kumar, 2006; Singh, 2008a). But, various studies across regions, crops/produce, and contracting agencies in India also find that most firms work mostly with large and medium farmers (Table 1), with the exception of a few firms in a few crops such as gherkins, baby corn, chillies, maize, and chicory, which worked with small and marginal farmers because of the nature of the crops (Singh, 2012a). In Gujarat, among the sample farmers, only one potato contract grower with McCain – a Canadian multi-national corporation (MNC) – had operational land holdings of less than 5 acres (although McCain did buy from some small growers without contracts); average land holding was 19 acres compared with only 5 and 9 acres for farm gate and APMC market sellers, respectively. Contract potato growers for Frito-Lay in Punjab had average operational holdings of 63 acres, with only 22 acres owned and the rest leased. None of the sample contract growers with Frito-Lay had less than 10 acres of land, in spite of the fact that the average size of holdings in the state (Punjab) was 9 acres and 70 per cent of holdings were below 10 acres each (Singh, 2008a). Another Indian Punjab-based study of CF showed that the average size of the operational holding of contract growers was more than one-and-a-half times that of the non-contract growers. It found 'no marginal farmer (below one hectare) … operating under contract farming. A handful of small farmers (one to two hectares) were operating' (Kumar, 2006: 5369). Another study noted 'the majority of the acreage registered in the project (CF by Punjab Agro Foodgrains Corporation (PAFC)) is held by larger farmers, who tended to receive greater benefits from participation (in CF)' (Witsoe, 2006: 16).

In fact, one of the parastatal agencies in Punjab (Punjab State Co-operative Marketing Federation (Markfed)) placed advertisements in local newspapers a few years ago to publicize its basmati paddy CF programme, asking potential contract growers to contact its district managers if they were willing to grow at least 3 acres of basmati paddy under CF with Markfed. The questions which arise from

Table 1 Average size of holding of contract growers in India by crop and contracting agency

Study and year (sample size)	*Contracting agency*	*Crop under contract*	*Average size of operated holding (acres)*	*Average % area under contract*
Singh, 2002 (19)	Frito Lay (Pepsi)	Potato	53	8
Ibid. (15)	Nijjer Agro	Tomato	22	23
Ibid. (24)	HLL	Tomato	78	33
Ibid. (11)	Frito-Lay (Pepsi)	Chilli	90	4.5
Dev and Rao, 2005 (104)	AP govt and processors	Oil palm	10	40
Singh and Asokan, 2005 (24)	Pepsi	Basmati Paddy	45.7	24
Asokan and Singh, 2006 (18)	AM Todd	Mint	57	–
Kumar, 2006 (100)	Many MNCs and local firms	Many crops	37	12
Narayanaswamy, 2006 (40)	AVT Natural products	Marigold	12	14
Narayanaswamy, 2006 (40)	Agro-biochem India	Marigold	20.7	10
Singh, 2007 (based on company interview)	SYP Agro	White onion	30	47
Naduvinamani, 2007 (35)	3 companies	Red banana	17	15
Singh, 2008a (21)	McCain foods	Potato	19	21
Ibid. (14)	Frito Lay (Pepsi)	Potato	63	53
Ibid. (20)	AM Todd	Mint	40	27
Singh, R. (2008) (15)	Frito-Lay	Potato	120	–
Singh, 2009 (34)	Agrocel	Organic Basmati paddy (rice)	31.9	28.6
Singh, 2009 (30)	Agrocel	Organic cotton	16.6	47
Singh, 2009 (44)	Pratibha Syntex	Organic cotton	15.3	84
Jalihal, 2009 (20)	Semi-Labs	Coleus (medicinal plant)	12.2	11
Jalihal, 2009 (20)	Natural remedies	Coleus	13.4	12
Pritchard and Connell, 2011 (15 in Karnataka and 10, 14 and 8 in AP)	Karnataka and Andhra Pradesh (AP) (AVT McCormick)	Chilli	35 (Karnataka) 22.5; 42; 22.5 (AP, 3 locations)	60 and 70; 25; 70, respectively

Source: various studies

this kind of offer are: first, how many small farmers can spare 3 acres for basmati paddy? How many can spare it for CF? And how many would like to spare it for CF with Markfed? Another export joint venture between a US multinational and an Indian company for chilli export from India worked with specified growers only as it selectively recognized rural spaces and generated new geographies of advantage and opportunity for participants and exclusion for others (Pritchard and Connell, 2011). There was smallholder exclusion in privately organized CF projects in organic cotton in Madhya Pradesh and Gujarat, and organic Basmati paddy in Haryana as well, despite the fact that most of these farmers were a part of smallholder organic group certification schemes/programmes of these organizers (Singh, 2009; also Table 1).

It is not incidental that most of the CF projects are in the states of Punjab, Haryana, Gujarat, Maharashtra, Karnataka, Andhra Pradesh, and Tamil Nadu, which are agriculturally grown states. On the other hand, vast areas of India such as Bihar, Jharkhand, Chhattisgarh, Orissa, West Bengal, the entire north-east and areas of Uttarakhand, Himachal Pradesh, Kerala, and Jammu and Kashmir have been bypassed by CF projects. These are areas with the highest concentration of small and marginal farmers. This essentially means that CF does not reach those who need to be given modern market access the most.

The aspects of contracting which contribute to CF excluding small producers are: enforcement of contracts, high transaction costs, quality standards, business attitudes and ethics such as non/delayed/reduced payment and high rate of product rejection, and weak bargaining power of the small growers (Kirsten and Sartorius, 2002). The organizers of CF also find it costly to work with small producers due to their scattered location and smaller volumes (Boselie et al., 2003). The eligibility criteria for participation in CF projects/schemes such as irrigated land, suitable land, land near main road, literacy level of the farmer, and certification are themselves discriminatory in terms of who can be a contract grower (Simmons et al., 2005). Being a female-headed household, older, less experienced, or not being a member of a peasant organization are also potential reasons for exclusion (Bellemare, 2012). In fact, in CF everywhere, private agribusiness firms have less interest and ability to deal with small farmers on an individual basis (Hazell, 2005). The organic produce chains also tend to exclude small producers for reasons of high certification costs, smaller volumes produced, and tighter control by the value chain drivers in the absence of any local market outlets for the organic producers (Raynolds, 2004; Singh, 2009). Thus, contracting agencies, especially private ones, tend to prefer large farmers for CF because of their capacity to produce better quality crops due to the efficient and business-oriented farming methods, large volumes of produce which reduces the cost of collection for the firm besides giving better traceability due to absence of pooling, their capacity to bear risk in case of crop failure, and various services provided by these large producers such as transport and storage, all of which lead to lower cost procurement for the firm (Key and Runsten, 1999; Simmons et al., 2005). Larger farmer preference of CF agencies also reinforces reverse tenancy wherein small and marginal farmers lease out land to large and medium farmers who are often contract growers for the firms as was the case in the Indian Punjab. This leads to exclusion of small farmers though their lands are used for CF (Singh, 2002). It is also pointed out that geographic factors and choice of location for procurement operations and institutional factors such as presence or absence of farmer groups or collectives, besides farmer eligibility criteria, also affect small farmer inclusion/exclusion (Barrett et al., 2010). The nature of crops (mass production vs. small scale), regions, technology, markets chosen, and terms and conditions of contracts also led to exclusion of small farmers (Trebbin and Franz, 2010).

On the other hand, small farmers cannot grow new high-value crops because of the higher cost of cultivation and marketing involved, which requires ownership of or access to high-cost equipment such as tractors and tubewells, besides the high cost of land lease to achieve scale economies. Further, these crops are at high risk of pests and diseases, and are a market risk, such as potato, which has no minimum support price (MSP) like most other vegetable and fruit crops in India, and sees frequent, wide fluctuations in demand and price. The small growers are risk averse, have a poor resource base, are already stressed with high costs of cultivation, lack market knowledge, and do not trust corporations owing to unjust quality-based rejections under contracts depending on market supplies and prices or many cases of corporations disappearing altogether at the time of harvest or not procuring on some pretext or other (Singh, 2002, 2004, 2008a). Therefore, use of CF as a risk reduction mechanism is a double-edged weapon for small farmers due to lack of bargaining power and alternative markets for the produce and ineffective regulation and enforcements of contracts by the state. The small famer ability to deal with contracting agencies is further compromised in developing country contexts where farmers are not collectivized. For example, in India, only 2.2 per cent of farmer households were members of any farmer association and only 4.8 per cent had a member belonging to a self-help group (SHG); these figures were as low as only 0.3 per cent and 1.5 per cent, respectively, in Punjab (Witsoe, 2006).

Private or collective codes of conduct, which are voluntary social and environmental guidelines devised by developed country firms to be adopted by their developing country suppliers (Jenkins et al., 2002), mostly under contract farming directly or indirectly, are another mechanism relevant for inclusion and well-being of smallholders. These codes have been criticized for mainly reflecting the interests of developed country consumers/business organizations; not giving local producers/workers any say in their formulation; only bringing about limited improvements in the work/environmental conditions of local producers/workers; and excluding small-scale producers from the value chain as they might not have the technical capacity/resources to comply with such codes (ETI, 2006; Barrientos and Smith, 2007; Lund-Thomsen, 2008). Similarly, multi-stakeholder initiatives (MSIs), which are thought to be more inclusive and more legitimate as they include civil society participation besides being joint efforts of public and private actors (Dolan and Opondo, 2005; Lund-Thomsen and Nadvi, 2010), could also exclude small producers from value chains as the latter might not have the financial/organizational capacity to meet the MSI standards of production. Consequently, farmers might be forced to ‘downgrade’, that is, resort to improving competitiveness by lowering product quality, selling to less demanding global buyers, squeezing workers' wages, and making them work under hazardous conditions (Gibbon and Ponte, 2005).

But, it is important to also recognize that there are some exceptions to this widespread exclusion of smallholders, where smallholders are part of the contracting arrangements due to the nature of crops, agencies, need for crop care with family labour, and involvement of local intermediaries. These crops in India include gherkins, baby corn, chilli, maize, and fresh vegetables (Singh, 2012a). However, it is not just inclusion which can deliver results. It is important to examine the nature of contracts and their enforcement which have been found to be highly biased against the farmers and protect all interests of the contracting agencies (Singh, 2002, 2009).

Making CF work for small producers

The above evidence points to the large-scale exclusion of small producers in CF arrangements in India and elsewhere. The potential problems of CF from a smallholder perspective, including exclusion, point to the policy and regulatory steps which are required to reduce the ill-effects of such a system, such as regulation and monitoring of contracts, and make CF effective for inclusive agricultural development. This section discusses the various aspects of CF regulation, policy, and practice for more inclusive CF.

Legal framework

Since small farmers in particular, and farmers in general, are the smaller parties in CF arrangements, it is important to protect the farmer interest. The state/government can play both a regulatory and enabling/developmental role in CF to leverage it for smallholder development. Legal protection for contract growers must be considered to protect them from the ill-effects of CF as practised generally by buyers. There are cases of legal protection for subcontracting industries in Japan in their relations with large firms. These laws specify the duties (to have a written and clear terms contract with the subcontractor) and forbidden acts for the large parent firm. The latter include refusal to receive delivery of commissioned goods, delaying the payment beyond the agreed period, discounting of payment, returning commissioned goods without good reason, forced price reduction, compulsory purchase by subcontractors of parental firm's products, and forcing subcontractors to pay in advance for materials supplied by the parent firm. These provisions are monitored by the Fair Trade Commission. Interestingly, most of the violations by parent firms were on the written form and clear terms of the contracts (Sako, 1992). If CF is similar to the flexible production systems prevalent in industry applied to farm production, then it is only logical to extend such legal provisions with necessary modifications to farming contracts. In the farming sector, there is the Model Producer Protection Act 2000 of Iowa state in the USA which requires contracts to be in plain language and disclose material risks, provides a three day cancellation period for the producer to review and discuss production contracts with their advisers, provides for producers to be first priority lien for payments due under a contract in case of contracting company bankruptcy, protects against undue cancellation of contracts by companies, and prohibits 'tournaments' (contracts where compensation to the grower is determined by her/his performance relative to others) (ILSR, 2008).

In India, the legal reform process for regulating and facilitating CF has been under way since the early 2000s with the Union Government enacting the Model Act (Agricultural Produce Marketing (Development and Regulation) Act, 2003 as agriculture is a state (provincial) subject for legislation) and many state (provincial) governments carrying out the amendment in their APMC Acts partially or fully. In fact, Punjab, which was a pioneer in promoting CF for diversification of its farm sector in the early 1990s, has not yet amended its APMC Act but has recently enacted another piece of legislation on CF exclusively called the Punjab Contract Farming Act 2013, which also has provisions for a CF Commission as a legal authority (Singh, 2013a).

The Model APMC Act has mandatory and optional provisions regarding CF wherein mandatory ones include aspects such as who can undertake CF (type of sponsor and of contract grower), details about the land under contract, duration of contract, description of farm produce, other contract specifications such as quantity (i.e. acreage, entire crop, or fixed quantity), produce quality specifications, and penalties for lower quality such as rejection or lower price, crop delivery arrangements (i.e. at farm/factory gate/collection centre) and transport arrangements, pricing and credit mechanisms, farmer asset/land indemnity, compulsory registration of contracts with the local authority, and the procedure for dispute resolution. The optional features include those relating to farm practices, joint crop insurance, support services to be provided, farmer-management forum for monitoring of contract system performance, and monitoring of quality and yields (GoI, 2003).

The model contract agreement is quite fair in terms of sharing of costs and risks between the CF sponsor and the grower. But, it leaves out many aspects of farmer interest protection such as delayed payments and deliveries, contract cancellation damages if the producer made firm-specific heavy investments, inducement/force/intimidation to enter a contract, disclosure of material risks, competitive performance based payments, and sharing of production risks. Also, there are state level variations in the amended Acts in terms of conditions and incentives. Further, the states have enacted laws differently to protect farmer interests, which range from bank guarantees of amounts equivalent to 5–15 per cent of the value of contracted produce to as specific as Rs.0.2 m. But, it remains to be seen how far the CF agreements under the amended APMC acts will be adopted by the CF firms unless it is a condition in order for the firms to avail themselves of certain other incentives or policies. In Thailand, even after three years of its notification, the standard CF agreement was used only by two companies (Singh, 2005b). Further, it is difficult to police contracts due to the multiple variables involved in a farming contract such as output price, input prices and supply, payments, and quality standards (Wolf et al., 2001). Therefore, if the firm really wants to manipulate/sabotage a contract, there are a dozen ways to do it. Further, the state/government may not always stand by the small growers due to the pressure from the agribusiness interests, and may suffer from the conflicting objectives of its various agencies. So, it is better to have more realistic expectations about the policy intervention effect unless it is complemented by strong producer organizations and their representation in policymaking bodies. Therefore, unless the enforcement of legislation and its rules is effective or demand driven, legal provisions on paper only will not help achieve the objectives.

Role of state and incentives

There is a need to design incentives from an inclusive perspective. For example, the provincial government of Punjab through its PAFC was reimbursing extension cost to the CF agencies/facilitators at the rate of Rs.100 per acre for three years to encourage CF. But, doing it irrespective of the size of holding of the contract growers defeated the purpose as it did not ensure that small and marginal farmers who could not afford to pay for extension and needed to be brought into the CF system were included. For other (large and medium) farmers, state support in the form of CF or extension was a bonus as they would have grown these new crops anyway (Witsoe, 2006). Thus, the state support was mis-targeted and had a political economy angle wherein in the name of small farmers, larger ones cornered the policy benefits. Similarly, the Ministry of Food Processing Industries, Government of India (GoI), had been providing an incentive since the beginning of the 9th Plan in the form of a reimbursement of 5 per cent of the value of raw materials procured through CF with farmers, with a maximum ceiling of Rs 1 m per year for a maximum of three years with the condition that any organization (private/public/co-operative/non-government organization/joint venture/assisted) should work with at least 25 farmers under contract for at least three years (MFPI, 1998).

On the other hand, in Thailand, the state not only provided coordination and support for local authorities such as agricultural extension agents, local administration officers, and the Bank of Agriculture and Agricultural Co-operatives (BAAC), it also reallocated 250 million baht deposited in the BAAC. The interest compensation for the farmer participants in the programme (3.5 per cent p.a.) was made available to encourage more farmer participation and to reduce costs of production. But, later, farmers could only obtain a low interest rate (5 per cent p.a.) loan instead of getting compensation for interest charged (Singh, 2005a). The Ministry of Agriculture and Co-operatives (MoAC) through its Department of Agricultural Extension (DOAE) carried out training in CF for farmers and local officials which included aspects such as guidelines for CF implementation (i.e. types of products suitable for a certain kind of contracting arrangement), familiarity with the system of CF, supervision of contract arrangements, special financial assistance to companies undertaking CF, and process of implementation of the CF project in terms of coordination between public and private sectors and choice of relevant area and farmers (MOAC, 2002). That credit support to CF projects by the state is crucial has been emphasized earlier as well in other contexts (Schwentesius and Gomez, 2002). There have been cases of success when public or private assistance to the small growers in terms of technical assistance and supply of input credit was made available. In some places in Brazil, small farmers went for collective tanks to meet the scale requirement though the large farmers still had an advantage as they did not face the transaction cost involved in collective use of physical assets. The dairy companies and cooperatives encouraged the use of collective tanks, even by financing or facilitating credit for milk producers in some cases (Farina, 2002). The groups of such producers and their organizations could be given capital and credit support for creation and management of storage, grading, and quality assessment facilities.

Incentives such as tax breaks should be provided to CF companies/agencies to work with individual small farmers or *groups* of small farmers rather than with individual large and medium farmers (Bellemare, 2012). This was done by Thailand through its national development plans during the 1980s and 1990s where, besides contract grower groups, the potato growers' co-operative also dealt with a multinational contracting company on behalf of its members. Group CF proves to be beneficial for both growers and companies (Singh, 2005a). These incentives for group CF or more inclusive CF could take the form of tax breaks, and even make it mandatory for them to make a certain percentage of contracts with small farmer and/or marginal farmer groups. Similarly, incentives could be provided to enable these (small) farmers to form groups to enter into contracts. These incentives can take many forms, including low interest loans, provision of storage for groups, provision of grading and quality assessment facilities, etc. Further, both firms and state should promote group contracts with the intermediation of local NGOs and other organizations and institutions so that contractual relationships are more durable, enforceable, and fair. Producer companies (hereafter PCs) in India are the latest mode (since 2003) to achieve this, which could be attractive to contracting agencies as well, as these are legally more corporate-like bodies. The PCs are the cooperative companies under the Companies Act in India which farmers in many states have gone ahead with in various existing and new projects (Singh, 2008b; Singh and Singh, 2012). Such PCs have already been found to be doing CF with seed companies/agencies/seed production organizers as a collective (Singh and Singh, 2012). Such farmer/producer companies (FCs/PCs) were tried in Sri Lanka by the state to transform its smallholders into viable business ventures by undertaking integrated operations from input supply to marketing of produce or working with private business entities as partners or joint ventures. But, most of these 85 FCs have not succeeded in this due to political interference, lack of participation of and coordination among stakeholders (shareholders), and companies not being formed based on felt need. Thus, the FCs need to be felt-need based and central to their members' livelihoods (Esham and Usami, 2007). More recently, the PCs have found recognition in India in terms of equivalence to traditional cooperatives for policy treatment which includes priority sector lending up to Rs.50 m under Reserve Bank of India (RBI) norms, credit and capacity building support from the National Bank for Agriculture and Rural Development (NABARD) and the Ministry of Agriculture of the Government of India.

Contracts and farmer/civil society organizations

There are a large number of institutional arrangements to coordinate the small producers which should be assessed for their relevance and effectiveness in a given context, though a priori, it seems the cooperative and other similar forms of farmer organization are more relevant and sustainable, especially the new generation cooperatives (NGCs) which are voluntary, more market oriented, member responsive, self-governed, and avoid free riding and horizon problems as they have contractual equity-based transactions with grower members (Singh, 2008a). Vigorous bargaining cooperatives or other producers' organizations (POs) are needed to negotiate equitable contracts (Key and Runsten, 1999). These types of organizations have been able to secure the standardization of contracts and their scrutiny by a government agency in the USA (Wilson, 1986) and the bargaining groups have negotiated input purchase and output sale collectively (Welsh, 1997). In Japan as well, farmers have managed their relationships with companies well through cooperatives (Asano-Tamanoi, 1988). Unless the promotion of such organizations is made a central component of India's new agricultural policy, CF will exclude most small farmers (Witsoe, 2006).

POs amplify the political voice of smallholder producers, reduce the costs of marketing of inputs and output, and provide a forum for members to share information, coordinate activities and make collective decisions. POs create opportunities for producers to get more involved in value-adding activities such as input supply, credit, processing, marketing, and distribution. On the other hand, they also lower the transaction costs for the processing/marketing agencies working with growers under contracts. Collective action through cooperatives or associations is important not only to be able to buy and sell at a better price but also to help small farmers adapt to new patterns and much greater levels of competition (Farina, 2002). There is also a need to strengthen small farmer organizations and provide them with technical assistance to increase productivity for the cost competitive market, provide help in improving quality of produce, and to encourage them to participate more actively in the marketing of their produce in order to capture value added in the chain.

Besides the resources and technology which determine CF performance, it is the relationship between state, companies, and farmers, which shapes formal and informal institutions and gets mediated by them, that matters (Ornberg, 2003). The practice of contracts needs to be monitored by farmer organizations or NGOs. In fact, the contracting agencies should proactively involve NGOs into their CF operations and even organize farmer cooperatives or groups for more sustainable CF programmes (Mayers and Vermeulen, 2002; Pingali and Khwaja, 2004). The groups or farmers' organizations like cooperatives not only lower the transaction costs of the firms but also lower input costs and improve market access for the farmers and give them better bargaining power besides opportunities for value addition and increased influence (Penrose-Buckley, 2007), as was mostly the case for a potato growers' cooperative in northern Thailand which acted as a link between the growers and the CF firm (Ornberg, 2003), and in grapes and baby corn in India where smallholder group certification under Globalgap reduced their certification costs (Singh, 2013b). In Kenya and Thailand, organization of local vegetable producers into groups and networks led to successful CF for food supermarkets for supply of fresh quality produce, including for export markets (Herbel and Haddad, 2012). In Mozambique, where

80 per cent of farmers were smallholders and only 7.3 per cent had membership in any farmer organization in 2005, the membership in a farmers' organization led to a 50 per cent increase in profits for small farmers from the crops handled by the organization (Bachke, n.d.). In contract arrangements with small producers in west African countries, the cotton CF companies transferred some of the operational or functional responsibilities such as distribution of inputs, equipment orders, and credit repayment management, to the village associations in the 1970s. They provided these associations with management skills for these tasks. The companies relied on traditional village authority structures for organizing the associations but limited the associations to one per village to simplify company purchasing, delivery, and marketing procedures. This arrangement accounted for a significant part of each cotton company's success in CF (Bingen et al., 2003). But, it is important to remember that producer organizations also involve costs to create and manage them, which include internal transaction costs, free riding, and trust and governance costs. They are also influenced and governed by the local social context including local elite capture and involve costs for small producers such as membership fees or upfront investments. Therefore, they may not be able to provide the ideal setting for addressing inclusion of various kinds – gender, marginalized or weaker sections. It may be difficult for small producers to access producer organizations as small producers lack the volumes and capacity to take risk and make investment in the organization, which may be needed initially, and are located in thin markets (Penrose-Buckley, 2007). In India's grape export sector, the only cooperative (Mahagrapes) had larger landholders as members on average than the non-cooperative grape growers (Roy and Thorat, 2008).

Conclusions

Given the nature of modern farming, involving a tremendous amount of technological input and market orientation which require capital resources, the involvement of private corporate business interests in agricultural development through the CF system is inevitable. The experience of CF across the globe suggests that it is not the contract per se which is harmful as a system but how it is practised in a given context. If there are enough mechanisms to monitor and use the contract for developmental purposes, it can certainly lead to a betterment of all the parties involved, especially small and marginal farmers.

It is important to remember that there cannot be a single blueprint or CF model for all situations so far as the role and nature of CF is concerned. Even for individual farmers, it is not the contract per se but the relationship it represents which is crucial as the divergence between the two may prove crucial in determining the development of CF as an institution (White, 1997). Further, it is the context of the contract which can make a big difference as there are many actors and factors in the environment which influence the working and outcome of contracts and lead to a culture of contracting which is location and community specific. In fact, there is so much diversity in the type of firms, farmers, nature of contracts, crops, and socio-economic environment that it is better to focus on specific situations than the generic institution of CF (Little and Watts, 1994).

Major conditions for successful interlocking between agribusiness firms and small producers include increased competition for procurement instead of monopsony, guaranteed markets for farmer produce, effective repayment mechanisms, market information for farmers to effectively bargain with companies, large volumes of transactions through groups of farmers, for lowering transaction costs, cooperation among genuine agribusiness firms in the area, and no alternative source of raw material for firms (Kirsten and Sartorius, 2002). Also, what is required is marketing extension in terms of better product planning at the farmer level, provision of market information, securing/accessing markets for farmers, provision of alternative markets, and market orientation in terms of improved marketing practices at the farmer level (Patnaik, 2003).

Though there has been plenty of successful intermediation in primary production by state and NGOs, much more of it is needed in agro-processing, credit, market access, information, and technology to enable small farmers to reap enhanced competitive benefits offered by a freer market. Therefore, new institutional mechanisms such as groups, associations, cooperatives, NGCs, and other collectivities or networks are needed to reach small and marginal producers more effectively. There is a role for the state agencies and the NGOs to intervene in CF situations as intermediaries to protect the farmer and the broader local community interests. The NGOs can also play a role in information provision, and in monitoring and regulating the working of contracts. Better cooperation and coordination between companies and cooperatives for agricultural development also needs to be encouraged.

Government should also play an enabling role through legal provisions and institutional mechanisms, such as helping farmer cooperatives, PCs, and farmer groups to facilitate smooth functioning of the contract system, and not intervene in CF directly as seen in the case of Punjab where the experiment failed (Kumar, 2006). On the other hand, in Thailand, where the state facilitated CF from outside with credit and extension, the impact was much better and sustainable (Singh, 2005b).

Also, it is important to ensure competition in CF so that farmers have a choice of options. For example, CF in gherkins in Karnataka was also successful, despite the lack of local markets for produce, due to the fact that more than two dozen companies operated in the state. This also helps reduce exploitation of the small growers. Further, since farmers did not put their entire land under contract and cultivated only 0.5 acres under gherkin contracts on average, they were not subject to any major risk of contract failure (Singh, 2012a). In this context, it is also important to reform APMC markets by providing for free licensing for better competition, e-payment of market fees, ensuring an open auction system, better facilities, PC representation in APMC governance, denotification of commission agents (*Arthiyas*) as in MP, as APMC markets serve as competitors to CF and can help improve the terms offered by CF agencies to growers as contract prices are often benchmarked to APMC market prices (Singh, 2012a).

Though CF has received a push from many stakeholders, there are many factors such as the APMC regulation, improving open market efficiency, MSP policy, corporate farming (corporate agencies undertaking farm production on owned or leased land, including leasing of so-called wastelands to these agencies by the provincial governments in India), and an overwhelming presence and interest of NGOs in the farming sector, which will act as dampeners to the growth of CF. However, corporate farming can also work favourably if corporate agencies resort to leasing of these lands to contract growers or provide contractual access to these lands to small and marginal farmers and landless labour, as corporate farming is unlikely to be viable (Singh, 2012a).

The crops for CF promotion should be chosen carefully so that they are inclusive of small producers. This requires contract crops to be short-duration, labour intensive, not very high cost in production, less risky, and easy to change. Such crops in India include gherkins, baby corn, chicory, maize, and chillies (Singh, 2012a). But, these are more of an exception than the rule in CF in India at present.

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