Contract Farming for Agrarian Transformation? Experiences from Punjab in the Context of Union Contract Farming Act, 2020

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India' agrarian sector has been under serious regulatory and policy restructuring for some time now. Among the two farm Acts passed by the Union government in 2020, the Contract Farming Act, 2020 has become the most controversial as it has raised farmers' concerns and fears about their land ownership and land access under corporatisation of Indian agriculture and its consequences. Punjab was pioneer in perishable produce contract farming in India in the 1990s and has significant experience of contract farming over the last three decades. This paper examines this long, intensive and wide experience in three distinct phases from a (small) farmer perspective to make sense of potential implications of the contract farming Act, 2020 which is focussed more on promotion and facilitation of this mechanism rather than protection of the farmer interest. The paper also provides an assessment of role of the state in contract farming and Punjab government's attempted response to the Union Act. It analyses the major issues and implications of contract farming in the state in terms of its farmer benefit, role in crop diversification, and inclusiveness of the mechanism itself before suggesting ways forward for regulation and use of contract farming mechanism for smallholder development.

1. Introduction

It is more than a year since the new Union Acts on agricultural markets were brought in, first as ordinances in June 2020 and later as Acts in September 2020. This enactment has been accompanied by farmer protests for their repeal in Punjab since September 2020 and later across north India. The farmers have been at the borders of Delhi for more than six months and the Acts have been put on hold by the Supreme Court of India until further notice. After many rounds of talks between the government and the farmer unions, there has been a deadlock for more than five months. Meanwhile, hundreds of farmers have lost their lives in this protest. Though there are two new Acts (The Farm Produce Trade and Commerce Act, 2020 (popularly known as Agricultural Produce Market Committee (APMC) *mandi* bypass Act), and the Farmers' (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020, (commonly called the Contract Farming Act, 2020), besides the amendment (2020) to the Essential Commodities Act, 1955, the Contract Farming Act, 2020 has been the most controversial as it has led to farmer concerns and fears about their land being under threat and likely corporatisation of agriculture due to the effects of this Act. It is also not just about markets alone unlike the APMC mandi bypass Act, 2020, as contract farming takes the market to the fields and has serious production and resource use implications.

Contract farming is growing in importance globally with the Food and Agriculture Organisation (FAO) reporting that by the turn of the century (2000), 45% of cash crop and livestock farmers were growing under contract (Chazovachii et al, 2021). Contract faming (hereafter CF) has been in practice in India since the 1960s in seed sector across states and in other farm produce in many states like Punjab, and Haryana since the 1990s with the Pepsi Foods undertaking tomato, chilly, and potato CF. There is a widespread practice of CF across crops, states and agencies (public, private and multinational) in India covering dozens of crops and livestock products with hundreds of CF projects or schemes, for domestic processing or for export. Further, CF has been legal in most states as per the model APMC Act 2003 of the union Ministry of Agriculture and Farmer Welfare (MoAFW), and later, under a separate model Agricultural Produce and Livestock Contract Farming and Services (promotion and facilitation) ((APLCF&S (P&F)) Act, 2018 (MoAFW, 2018).

Globally, there have been issues with the CF practice (USAID, 2015; Chazovachii et al, 2021) like side selling, mistrust and dissatisfaction among contract growers about company practices and, therefore, unwillingness to continue or withdrawal from contracts (Ruml and Qaim, 2020) though contract farmers earned higher returns despite spending higher on production than that by non-contract farmers (Loquuias et al, 2021) although not in all situations (Ragasa et al, 2018). The role of CF in stabilising farm income as a part insurance against market risk has also been noted (Bellemare et al, 2021). In India, the practice of CF has also led to exclusion of small farmers (Singh, 2013), and studies have refuted claims of the contracting agencies that they are in partnership with famers or the claimed farmer benefits, and studies find that farmers are not willing to take up CF due to the stringent quality standards and rejection of farm produce (Ray et al, 2021).

Punjab has been one of the important agricultural growth state as reflected in yields as well as farm input use besides commercialisation of crops where even food crops are grown mostly for the market. The fertiliser use is double that of India on per hectare basis and 94% of paddy and 79% of wheat produced are sold in the market. However, until recently, it has been a case of state managed capitalistic growth of agriculture in the state. But, during the last decade (2010-2020), the trend rate of growth of area, production and yield has become negative for most crops with the exception of only paddy, barley, maize and oilseed in terms of production. The two crops of wheat and paddy ended up occupying 82% of the Gross Cropped Area (GCA) of the state by 2014-15, leading to heightened level of issues of groundwater depletion, stagnant farm incomes (Singh and Singh, 2020) and, therefore, urgent need for crop diversification which has not progressed at all despite several attempts at it (Bhogal and Vatta, 2021). The increasing dependence of farmers on markets for inputs and output has led to higher cost of cultivation resulting in indebtedness, suicides and depeasantisation of the small and marginal farmers and displacement of labour due to excessive mechanisation (Singh and Singh, 2020). Punjab was a pioneer in perishable produce CF in India since the 1990s and had significant experience of CF. In this background, this paper examines the experience of CF in Punjab over the three decades from farmer perspective and lessons from it in order to make sense of new contract farming Act, 2020 so that adequate measures can be thought of to protect the (small) farmer interest in CF in future under the new CF Act, 2020 which promotes and facilitates the mechanism rather than protecting the farmer interest. Section two brings out Punjab's CF experience in three phases including an assessment of the role of the state in it. Section three analyses the major issues and implications of CF so far in the state and section 4 examines aspects of the new Union CF Act 2020 and Punjab's response to it followed by major lessons and ways forward in section 5.

2. Punjab's CF experience

It was recognised quite early that it is important to move farmers with investible surpluses from agriculture to the industrial sector but, that was never attempted (Gill, 1988). On the other hand, private agribusiness firms were thought to be harbingers of change to bring dynamism to the agricultural sector, either by helping raise yields or cutting costs directly, or providing higher returns to the producers by value addition or diversification. CF arrangements between growers and private processing interests were to achieve both these objectives by providing the former with better seeds, inputs and improved markets and price. The logic for this and for crop diversification as the objective of CF came from the report of the Johl Committee of 1986.

2.1 The 1990s Experience

The arrival of Pepsi in Punjab led to large scale CF of perishable produce for the first time other than what Markfed was doing on a small scale (Singh, 2000). The Pepsi project, approved in 1988 by the Government of India, was to initiate a second agricultural revolution in Punjab where the first Green Revolution had reached a plateau in terms of yield levels of major crops. The project, a joint venture among PepsiCo, Voltas, and the Punjab Agro Industries Corporation (PAIC) was to bring in a horticultural revolution by moving Punjab farmers away from wheat and paddy cultivation to that of horticultural crops like fruits and vegetables through CF. It was argued that the Pepsi project was of utmost importance for Punjab (Bhatia, 1987; Singh, 1988). Since Pepsi found the local varieties of fruit and vegetables unfit for processing, it wanted to promote new varieties and proposed an agro-research centre with an outlay of Rs 20 million. Within three years of CF operation, the Pepsi project was able to raise the yields of tomatoes from a mere 7.5 tonnes to 20 tonnes per acre, extend the harvesting season from 25 to 70 days. It introduced new technologies/practices like deep chiselling, shovel technique and bed head planting, besides introducing new seed varieties. The mechanisation of most farm operations led to increased yields and reduced the cost of production. In fact, despite the huge losses made by the company in tomato procurement and processing, growers made good money. CF in Punjab was in place by the early 1990s with the entry of Pepsi Foods - subsidiary of Multi-National PepsiCo - into production of tomatoes and chillies, and a local firm, Nijjer Agro Foods into tomato cultivation. This became more rooted with Pepsi selling off its tomato facility to Hindustan Unilever Limited (HUL) - subsidiary of multinational Unilever in 1995, and Pepsi's entry into potato contracting by the late 1990s. Pepsi worked with only about a few dozen farmers in production of chillies and potatoes after this. Its potato contracts accounted for only about 10% of its total procurement. Nijjer Agro Foods worked with about 400 tomato contract farmers in the late 1990s, same as in case of HUL (Singh, 2004).

But, the Pepsi project had already disillusioned a large number of stakeholders like the Akali Dal, PAIC, Voltas, and the Bhartiya Kisan Union (BKU) as many promised components of the project were not executed. Though there were not many studies on this set of contracting companies (Rangi and Sidhu, 2000; Singh, 2002), they revealed that contract growers faced many problems like undue quality cut on produce by firms or no procurement of produce, delayed deliveries at the factory, delayed payments, low price, poor quality inputs, pest attack on the contracted crop which led to crop failure, poor yields, or raised the cost of production, poor coordination of activities, inferior technical assistance, and even outright cheating in dealings, and manipulation of norms by the firms (Singh, 2002).

HUL's move into Haryana and Rajasthan for its procurement and Pepsi Foods' limited procurement of potato from contract growers left much to be desired. Later, the HLL tomato processing plant in Punjab was shut down. Similarly, Pepsi gave up tomato, chillies and even potato CF, by and large, and moved into basmati rice, groundnut and garlic CF from 1998. It had acquired a paddy processing plant in Haryana which only meant perpetuation of paddy cultivation in the region (Punjab and Haryana), though the MNC was granted entry into Punjab to prevent precisely this (Singh, 2005a). The contracts of all the firms were anti-farmer, short-term, and costly and perpetuated the existing problems of the farm sector, like high chemical input intensity and social differentiation (Singh, 2002), although CF led to higher farm incomes and more employment for labour. Besides, there were serious gender and child labour issues in contract farms though it had led to higher employment for landless labour (Singh, 2003). There seemed to be an inherent contradiction in the objectives of the contracting parties and that of the local economy (Singh, 2004).

The company (Pepsi) had also started subcontracting out its procurement to large growers in each area who procured from small growers. The growers defaulted from contract supply to the company and sold their produce in the open market due to the higher prices they could obtain there. But, it was not that only farmers defaulted. Even companies were not able to procure produce from the farmers many times, especially when they had over-contracted acreage and yields were good. Then, either they did not give quota slips in time for the entire produce or became strict on quality. The area under the contract crop (tomato) increased in pockets of the region where the practice of CF existed. Each pocket had a few hundred acres under tomato, which, in some areas, was not grown at all earlier. In all, total production of the crop was 93,000 tonnes in 1990, which increased to 2.5 lakh tonnes by 2001. But, at the same time, no increase in the area under horticultural crops was evident, as the production increase under contracting had come largely from the yield factor and not from expansion of area. In fact, the area under fruit and vegetable crops in the state still remained less than 2%. Also, there was an area shift mostly within fruit and vegetable crops due to contracting (Singh, 2004).

By determining the crop to be grown and the husbandry practices the farmer has to follow, the contracting agency influences the impact CF has on the environment (Opondo, 2000). The irrigation intensity of contract crops, i.e. tomato, potato and chilly, was more than that of wheat in Punjab during the late 1990s under Pepsi Foods CF. For example, potato required 8-12 irrigations compared with only 5-6 for wheat and other crops. Pesticides and fertilisers were also used at much higher levels than in the traditional crops. The chip grade potato crop required 4-5 pesticide sprays and the seed potato crop 6-7 sprays. Tomato crop under CF required as many as 14 sprays, which was even higher than that in cotton (Singh, 2002) and farms also reported 18 sprays in the tomato crop (Rangi and Sidhu, 2000). This, despite the fact that the PepsiCo website stated that it followed a policy of ‘application of environmentally sound agricultural practices with its suppliers of agro-materials (Aragon-Correa and Rubio-Lopez, 2007).

2.2 The 2000-2010 phase experience

The state and its agencies affect agricultural development in many ways by incentivising or disincentivising some activities over others. In the context of CF, it was not just direct incentives to agencies and farmers that counted, but also the agricultural policy itself (Singh, 2010).

The CF programme launched by the Punjab government in October 2002 (for the *rabi* season) was aimed at reducing 10 lakh hectares under wheat-paddy rotation over the next five years. In 2002-03, a total of 29,000 acres was covered under the programme. The programme was being implemented jointly by the Department of Agriculture, Punjab Agro Foodgrains Corporation (PAFC, a subsidiary of PAIC) and private companies. The PAFC not only provided seeds purchased from reputed companies like Adventa India and Pro-Agro, and extension to contract growers, it also promised to buy back the entire produce at pre-agreed prices through a tripartite agreement involving PAFC, the seed company through its dealer, and the farmer. PAFC had the sole authority in deciding weight of the produce and the only arbitrator in case contract terms were dishonoured by any of the parties. But, by the harvesting season for the contracted crops, the programme had run into rough weather. The contracted winter maize crop completely failed due to inclement weather. The contract green peas growers were forced to dump their produce in the open market after being rejected by PAIC on quality grounds, as per the contract specification because it developed fungus due to inclement weather. Some farmers found fault with the fungicide supplied by the contracted company. The dumping of contract produced crop in the open market led to a fall in local market prices and was sold at Rs 3 per kg as against a promised price of Rs 5 per kg by the PAFC. The programme could not achieve its stated area goal in most crops and regions (Singh et al, 2003). None of the companies procured the produce and rather advised the farmers to sell in the open market either because open market prices were higher than the contract price or the quality was not as desired. Most of the problems farmers faced related to production and quality (of seed and extension) and not marketing of produce (except peas) as the open market could take care of contracted produce. Due to this experience, a large majority of growers (60%) were not willing to enter into CF arrangements again (Singh et al, 2003). Major problems faced by growers in the case of Nijjer Agro were undue quality cuts in produce (15-40%) depending on market prices and delay in payments upto even 6-12 months and no regular contracts (Dhillon and Singh, 2006).

There were also instances of corruption and malpractice in the programme due to conflicts of interest among implementing agencies and lack of monitoring (Ramachandran and Dogra, 2006; Singh, 2007). The World Bank reports also pointed to the deficiencies in the CF program launched by the state (World Bank 2003, 2004). It was rather surprising that the state acted as a party in the contract agreement with the growers. Nowhere in the world has the state undertaken this kind of effort for diversification. Later, the state withdrew to the role of facilitator of CF.

The percentage share of contract farmed area in 2002-03 was merely 0.12% and the actual area under CF as against targeted was only 5.6%. Out of 13 crops targeted, CF was undertaken only in four crops. Moreover, actual area for CF in many crops was very low as compared to the targeted area e.g. in *hyola* it was 13.06% of the targeted area, and barley only 16.4%. In later years, very few crops were selected for CF namely hyola, barley, spring maize, basmati and *kharif* corn and actual area brought under CF for these crops was very low as compared to the targeted area with the exception of basmati paddy. The CF area increased to 0.96% in 2003-04, and 1.2% in 2004-05. The area under CF remained almost the same, hovering around 1% during 2004-05 to 2008-09 and declining to 0.97% in 2009-10. The Punjab State Agricultural Marketing Board incentivised CF by charging 0.25% market fee instead of the regular 2% and Rural Development Fund (RDF) cess of 0.25% instead of 2%. Thus, a reduction of 3.5% made the procurement of agricultural produce under CF very attractive and competitive for the processors. But, this concession was withdrawn later. Consequently, either CF companies quit CF or were involved in direct CF later on. After that, the CF program was shelved until 2008 when it was revived with new targets and mechanisms. But by 2009-10, when targets were lowered instead of raising them, the actual achieved area under CF reached 71.5% of targeted but no crop achieved more than 60% with the exception of basmati paddy (Sharma and Singh, 2013).

During 2003-2007, Punjab had only 1% of GCA under CF compared with the 2% in Andhra Pradesh, with the latter also having the highest %age of large farmer land (that is, >10%) under CF. Punjab was the only north Indian state which had 4-10% of large farmer land under CF. The largest number of CF players were into basmati paddy followed by potato, mint, barley, and maize besides tree crops like poplar and eucalyptus. In Punjab, it was mostly in Malwa and Doaba districts that more than 80% of farmers with more than 10 acres out of total of 37000 contract farmers were into CF in 2006 (Shrimali, 2014). Of all contract growers, almost 50% were into hyola, followed by maize (25%), basmati (17%) and sunflower (7%). During this phase, even state-owned PAFC was involved in 10s of thousands of acres of hyola, basmati paddy, maize and sunflower CF as part of the state government plan for crop diversification through CF (Shrimali, 2014).

During this phase (2002-2007), CF led to less water consumption on contract farms as against non-contract farms. Overall, contract growers' weighted water consumption per acre was 120.49 hours compared with 129.58 hours in case of non-contract growers. But, reduced water consumption on contract farms was due to greater area devoted to the new crops (basmati and maize) and not due to any new agricultural practices promoted by the contracting agencies. In fact, the contract farmers were practicing more intensive agriculture than the non-contract farmers and were devoting significantly higher number of water hours to basmati and maize than that by non-contract farmers across all crops. Thus, increased commercialisation of the various crops under CF propelled these contract farmers to use various inputs more intensively. Further, crop combination of potato and sunflower promoted under CF was more water intensive, though more remunerative than wheat (the alternative traditional crop) and therefore, defeated the very purpose of CF in the state (Singh, 2016).

The contract farmers wanted to control their costs when contract prices were fixed by contracting companies. Therefore, they resorted to payment of piece rate-based wages and use of migrant labour. This led to self-exploitation of workers in terms of longer working hours, and more intensive work in order to earn enough in a day. The women and child workers were preferred for reasons of nimble fingers and their low opportunity cost besides being more obedient and less resistant compared with male adult workers. Children were able to work in some crops like flowers before and after school hours and they were paid Rs. 6/hour for two shifts of 4 hours each earning Rs. 48/day. The contract farm had labour supervisors and labour coordinators, the former being labour contractors and the latter employed by the farm owner who provided for worker attendance and supplying tea and snack to them and could be a female as well (Shrimali, 2014).

2.3 The Post-2010 experience

By 2010-11, barley was the only crop selected for CF which again pointed towards the poor performance of the CF scheme. Initially, many companies operated through PAFC (indirect CF) but by 2012, only United Breweries was involved in indirect CF i.e. (Sharma and Singh, 2013). In barley, contract growers were much larger land operators (10 hacs) compared with non-contract growers (7 hacs) on average in 2013-14. Though their cost of production was somewhat lower than those of non-contract growers, yields were comparable but net returns were significantly higher than those of non-contract growers (Singh et al, 2015). In April 2013, Punjab enacted the Punjab Contract Farming Act, 2013 which was never operationalized though it was also not needed.

Though farmers benefited from assured market and higher prices leading to stable and higher income and even leading to crop diversification away from wheat, the farmers also reported major problems in terms of high cost of inputs, emergence of weeds, low procurement price, delay in payments and delay in procurement (Kaur and Singla, 2018). In 2014-15, chicory contract growers' variable cost was higher (2.5 times) than of wheat, but chicory crop gave much higher returns than the wheat crop (Singh and Sidana, 2017). In seed potato, the contracting companies reneged on promise of purchasing the crop, citing quality concerns. However, farmers also withdrew from the contract and sold the crop elsewhere sometimes as there was a robust open market for seed potatoes (Sinha, 2020). Companies were also buying without contracts from other farmers, e.g Pepsi bought processed variety potatoes from non-contract farmers. While potential farmers were identified by the company, the sale/purchase of the produce was not binding on either of the parties. Upon harvest, farmers tested their crop for quality characteristics, such as size and sugar content. This form of sale could be attractive as prices offered to farmers were relatively more stable and remunerative; for example, in 2014–15, farmers claimed that PepsiCo prices were Rs 200–300/ quintal higher than open market prices. However, the quality standards were quite stringent, and the farmers had to travel a large distance to sell the crop besides the fact that sale was not always guaranteed (Sinha, 2020).

3. Implications of CF: Exclusion and Reverse Tenancy

There is no doubt that CF generally benefits farmers compared with existing channels of marketing (Singh, 2002; Kumar, 2006; Kaur and Singla, 2018). But, the exclusion of small holders remains a key challenge as contracting agencies prefer larger farmers to reduce their transaction costs (Singh, 2002; Singh, 2004; Kumar, 2006) with a few exceptions in some regions and some crops (Pritchard and Connell, 2011; Singh, 2012; Sharma and Singh, 2015; Sharma, 2016; Sharma 2016a) as sometimes small farmers self-select themselves out when large farmers are part of the CF program (Ze-ying et al, 2018).

In Punjab, only 31% of the operated agricultural landholdings are small or marginal and they account for just 8% of the operated area. On the other hand, large farms (above 10 hacs) account for just 7% of all farms but cultivate 26% of land and they along with another 28% semi-medium farms (4-10 hacs) who had 43% of operated area, accounted for 69% of all operated area of the state. Further, there is one tractor for every three farm workers now. The operating farmers are only 20% of all workers and only marginally higher than the farm worker proportion in total (16%) (Singh and Singh, 2020). Small farmers in the state have been moving out of agriculture due to the phenomenon of 'reverse tenancy', leasing out their land to bigger operators like medium or large holders who have the resources and linkages for modern farming or agribusiness. Importantly, Punjab is the only state in India where the size of operational holdings is increasing instead of decreasing (Singh, 2012). In Punjab, by 2010-11, 55% of the operated area was with the tenants with leased in area accounting for 48% of the operated area and the average size of the operated holding of a tenant was double that of an owner operated although the owned land did not differ across types of farmer. Further, 83% of tenant farmers owned tractors compared with 55% of owner farmers and 78% had power operated tube wells compared with 61% of owner farmers. A majority of them also employed permanent farm servants compared with only 25% of owner farmers. The semi-medium and large farmers accounted for 48% and 34% of the leased in area with another 40% being with the semi-medium farmers in 2010-11 (Shergill, 2016). In Hoshiarpur, 43% farmers leased in land (Chatterjee et al, 2020).

During the first phase, the contacting companies (HLL, Pepsi and Nijjer) preferred large growers for contract production, perhaps to avoid problems of dealing with too many small growers, and average contract grower holdings were as large as 72 acres in case of MNCs and 22 acres in case of a local firm (Singh, 2004). Further, CF led to concentration of operated land and even reverse tenancy (Singh, 2002) and even in 2007, 56% of contract farmers had leased in land and 51% of them even more than 10 acres each. Thus, 33% of them had operated holdings of more than 25 acres each, 46% of 10-25 acres and only 20% had less than 10 acres each (Shrimali, 2014).

The CF programme excluded small farmers in most cases as firms specified eligibility conditions like landholding, irrigation, and education. Contract farmers had average holdings much larger than the average size of a holding in the state (9.5 acres) (Asokan and Singh, 2006; Singh, 2008) and there was 'no marginal farmer (in the size group of below one hectare) ...operating under CF. A handful of small farmers (in the size group of one to two hectares) were operating' (Kumar, 2006). Yet another study noted 'the majority of the acreage registered in the project (CF by PAFC) is held by larger farmers, who tended to receive greater benefits from participation' (Witsoe, 2006). Even Nijjer Agro worked mostly with medium sized farmers who had on average 13 acres of land and only 6% farmers were small or marginal (Dhillon and Singh, 2006). Markfed, a parastatal agency, placed advertisements in local newspapers asking farmers willing to grow at least three acres of basmati paddy under CF to contact its district managers (Singh, 2012).

In 2014-15, the three major contracting companies active in Khanna area of Ludhiana district (PepsiCo, Mahindra & Mahindra and Technico Agri Sciences) preferred to work with larger farmers; one of them requiring a minimum operational holding of 7 acres for a farmer to be eligible to be contact grower (Sinha, 2020). In chicory and sugar beet CF, the two CF agencies mostly excluded marginal and small farmers from their operations. Only one firm had 6% of its all contract farmers who were small despite the fact that 28-32% of the farmers in their operating areas were marginal or small. Operated land holdings of contract farmers in both cases were double of their non-contract counterparts and even owned holdings were larger (Kaur and Singla, 2018). The exclusion of smallholders has led to research and policy concerns on the inclusiveness of agribusiness models globally (Melese, 2012).

4. The Union CF Act: Design Issues and Punjab's Response

The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020 (Contract Farming Act) states that its mandate is: 'to provide for a national framework on farming agreements that protects and empowers farmers to engage with agribusiness firms, processors, wholesalers, exporters or large retailers for farm services and sale of future farming produce at a mutually agreed remunerative price framework in a fair and transparent manner' (MoAFW, 2020). The use of the term 'farming agreement' itself is unusual as it is being confused with other arrangements like sharecropping or leasing agreements.

The biggest problem is that it is being confused with corporate farming (corporates farming on leased or owned land). The confusion between CF and corporate farming created by the Act is so significant that the Rajasthan Amendment Bill, 2020 (GoR, 2020; p.4) states:

> 'Where under a farming agreement, sponsor undertakes the farming by deploying his/its manpower, the sponsor shall be liable to remove his manpower from the agriculture farm/field from the next date of termination of the farming agreement and in the event of manpower of the sponsor continuing in the agricultural farm/field, the sponsor shall be liable to pay damages to the farmer to the tune of such amount as may be notified by the state government from time to time which shall not be less than one thousand rupees per bigha per day'.

The Act seems to protect farmer's land when it states in Section 14: 'No farming agreement shall be entered into for the purpose of (a) any transfer, including sale, lease or mortgage of the land or premises of the farmer…' (MoAFW, 2020, p.5). But since the 'production agreement' is defined as 'where the sponsor agrees to provide farm services, either fully or partially and to bear the risk of output, but agrees to make payment to the farmer for the services rendered by such farmer' (MoAFW, 2020, p.2), it raises doubts as to how can a farmer be paid for the services rendered, and not for her produce? How can the sponsor bear risk of output when it is produced by the farmer? The sponsor can only reduce farmer's market risk as it agrees to buy in advance at a pre-agreed price.

The above aspects of the Act raise doubts whether it is more about land leasing and corporate farming, rather than CF. If that is so, then this Act violates the land leasing Acts of many states which still restrict farmland leasing with only a few exceptions of some categories. And, it is important to recall that the Union government's 2018 model contract farming and services Act had also provided for land leasing in the Act (Singh, 2018). So, it is more about providing it by design, not a default or lacunae in the Act and the Rajasthan government amendment Bill, 2020 can't be faulted for (mis)interpreting it.

The ‘trade and commerce agreement’, another type of CF agreement in the Act is defined as ‘where the ownership of commodity remains with the farmer during production and he gets the price of produce on its delivery as per the agreed terms with the Sponsor’ (MoAFW, 2020, p.2). It is nothing but about direct purchase which is not the appropriate transaction under any CF Act besides the fact large retailers are mentioned as contracting parties. The global and the Indian truth about large retailers or food supermarkets is that they don’t have contract agreements with farmers and buy directly without any advance commitment of price (Singh and Singla, 2011).

The Act links bonus and premium over and above the guaranteed price, with mandi price or electronic market price which is anti-CF in nature. The contract price, like many other basic aspects of contract, should be left to the parties to negotiate and can’t be tied to any other channel especially APMC price as the very rationale for bringing this law was to provide an alternative channel to farmers and create competition due to the perception that APMC markets were seen as not discovering the prices efficiently. Now, going back to the same mandi does not speak very well of the Act.

This Act leaves out many sophisticated aspects of modern CF practice like contract cancellation clauses and damages therein, and ‘tournaments’ in CF where farmers are made to compete with each other and paid as per relative performance which is banned in many countries. The very basic aspects of contract farming like acreage, quantity, and time of delivery are not specified which is a must for any law regulating it as these are mandatory aspects of such an arrangement whether with supply of inputs or otherwise. In fact, the 2003 model APMC Act had such provisions and even a model CF agreement. Therefore, it required properly thought out regulation but the said Act fares poorly on that count.

Further, it is surprising that despite keeping the dispute settlement outside the purview of civil courts, the guidelines say that a farming agreement must meet the ordinary requirements of contract law to be valid just like other contracts (MoAFW, 2020). If these contracts are not to be dealt with by civil courts, then why this condition? These guidelines also state ‘when a sharecropper is involved in the agreement, he may be made responsible for receiving and using any inputs from the sponsor, for cultivation of produce of the appropriate quality and for production by using good standard practices’ (MoAFW, 2020, p.2). This is again faulty as CF agreement by a contracting agency is always with a land owner or a leasee operator, and not with a farm worker or a labour tenant.

The above discussion shows that the union CF Act is more about facilitation and promotion of the CF mechanism rather than its regulation. That the Act goes all the way to facilitate CF is clear from the fact that it mentions that the stock limits Act (ECAA, 2020) would not apply to contract farmed produce. Why should this provision of another Act be specifically mentioned in this law which has nothing to do with this law directly or indirectly? Finally, the proof of any law is in its implementation but so far as protection of farmer interest is concerned, this Act leaves much to be desired in its design itself.

Punjab's CF Act amendment Bill (2020) bars any agreement for wheat or paddy below the MSP announced by the Union Government for that crop. It states: 'No sale or purchase of wheat or paddy shall be valid unless the price paid for such agricultural produce under a farming agreement is equal to, or greater than, the Minimum Support Price (MSP) announced by the Central Government for that crop' (GoP, 2020). However, who expects any agency to undertake CF in these two crops in Punjab or anywhere in India, unless it is basmati paddy or durum wheat? Punjab has some basmati CF but that may not be included under paddy and the state does not grow any durum wheat? It is sad that imagination of the state government did not go beyond these two crops, was short term in nature, and missed the wood from the trees. The MSP is declared for 23 crops but other crop farmers or those trying to diversify under CF would not have the MSP protection of the Bills. Of course, this was a bad proposal per se as contract price can't be tied to any other price especially state declared prices as contract prices should be discovered by the two parties. This is so as contracting is also about benefits other than price which could be yield, cost or quality of crop. Haryana had made MSP as the minimum contract price for contracting agencies in 2005 under its APMC Act but it was for all crops where MSP was applicable. One should have learnt from its neighborhood. The CF Act Amendment Bill makes contract price below MSP or forcing a farmer for it an offence which shall be punishable with imprisonment of not less than three years and a fine. But why would a buyer compel or exert pressure on seller farmer and how would that be established? In sum, Punjab's Bill is bereft of any tangible benefits to the state's farmers and does not do any service to the sustainability of its farm sector and farmers (Singh, 2021).

5. Conclusions and ways forward

Though CF is an important mechanism for diversification, in reality, it is more about who does CF, why and how it can help or hinder diversification. In order to ensure better farm incomes from new crops, it is important to ensure that contracts are fair and balanced and reduce farmer's market and production risk of new crops.

As far as local groups or agencies of small farmers are concerned, there is a striking absence of any farmers' or producers' organisations in the state. Compared to 2.2% of the farmers in India being members of some agricultural association or the other and 4.8% of self-help groups (SHGs), the corresponding figures in Punjab were only 0.3% and 1.5% respectively (Witsoe, 2006). This neglect of smallholders is further reinforced by the absence of non-governmental organisations (NGOs) working in the agricultural sector of the state (Singh, 2012) which has been noted earlier as well (Singh, 2004). The farmers' organisations, and NGOs could have intervened in CF situations as intermediaries to protect the farmer and broader local community interests. It is also important to realise that CF need not be promoted for all crops, farmers and regions, and the state should play more of a regulatory role rather than a promotional one. Credit support to CF projects by the state is crucial. State policy, including CF, needs to be changed in favour of small producers (Singh, 2012). It was ironic that a corporate joint venture with a foreign wholesaler (Tata-Total Produce) was the first and only agency in Punjab to organise fruit and vegetable producers into producer companies (PCs) though it never worked (Singh, 2012). Punjab has been a laggard in promotion of PCs unlike many other states (Singh and Singh, 2014; Singh, 2021a).

Diversification in the farm sector was achieved successfully in Thailand through private initiatives where the State played an essential role in setting the investment climate and investing in infrastructure and supporting small farmers with farm credit. In partnership with the private sector, the State agencies i.e. Bank for Agriculture and Agricultural Co-operatives (BAAC) and the Department of Agricultural Extension (DOAE) provided credit and extension support respectively to the contract growers working with private companies in high value crops. The Board of Investment (BOI) provided incentives to CF agencies in the form of exemption from import duties on machinery, exemption from income-tax for certain activities for five to eight years, 50% deduction in normal income-tax rates on net profits from certain operations for five years after the income-tax exemption for the first five years and a deduction of an amount equal to 5% of the increased income over previous year for ten years. The Ministry of Commerce also actively promoted organic agriculture, providing training and funding to food chain actors i.e. producers, processors and exporters. The Thai success in diversification in agri-food sector was jointly determined by the synergy of government actions and private sector initiatives. Stable policies supported by continuity in programmes and competent bureaucracy were also major factors (Singh, 2016).

For CF to succeed, both regulation and policy are needed, and one can’t do the job of another. Contract should be fair to both the parties and enforcement mechanism should be clear and credible. There should be promotion of grades and quality standards among growers besides credit support and extension provision by public agencies, and state should not promote CF in non-viable situations or intervene too much, and incentives should be time bound and short term. Most importantly, competition in CF among buyers is a must to avoid side selling by buyers and give choices to farmers to receive competitively discovered prices and other benefits (USAID, 2015). Many times, government projects in the contract crop can drive away private agencies from CF (Lambrecht and Ragasa, 2018).

The way forward is either to leave the intra-state agricultural marketing reforms to the states in the spirit of co-operative federalism, respecting the constitutional domain of states, as states are no less keen to permit new channels for farmers and buyers, and in fact compete among themselves, or to amend the Act in consultation with the states and other stakeholders especially farmers to make them deliver the regulatory oversight and farmer interest protection.

In the case of first option, the rationale is to permit diversity and flexibility in the nature and extent of reforms given the differential conditions of farming, famers and agricultural markets in different states. The argument that these Acts can’t be repealed has no logic as Bihar repealed the APMC Act in 2006 and the

Union government had left the Land Acquisition Act of 2013 to the states when amendments to it could not go through. But, if the union government still wants to legislate on CF, it can still use entry 7 of the concurrent list as that is about contracts other than agricultural land and CF is about crops/produce being grown under contract. But, in that case, the Act would require serious redesign to make it protect farmer interest adequately.

In the case of amendment option, in order to win farmer confidence in CF, the land leasing provision should be removed from the definition of contract agreement in the Act and it should be clearly written in the Act that no recoveries other than from farm produce can be made from famers even if they default. Further, it should have mandatory and optional provisions in the CF agreement as was the case with the model CF agreement under the model APMC Act of 2003 (Singh, 2018).

Further, since Indian farmers are marginal or small, they can't deal with large buyers on their own even if they are brought under CF by some corporate agencies. Therefore, group contracts should be either part of the legislation or encouraged by policy incentives to make the mechanism inclusive and effective for farmers. The government can facilitate such contracts through credit and extension facilities like in Thailand (Singh, 2005). Also, India has thousands of PCs which are very business-like entities of farmers, and they can play a role in making CF deliver the objectives of farmer income enhancement by facilitating CF with smallholders, and also undertaking it on their own (Singh and Singh, 2014; Singh, 2021a). The PCs should be given better treatment in the new Act as legitimate buyers, not just suppliers.

Finally, it is important to realize that whatever expansion CF and direct purchase may witness, India's large mass of marginal and small farmers would need public and private wholesale markets which need to be reformed and set up respectively as they are the last resort for a large majority of them. These markets need to be reformed in terms of free licensing for better competition, e-payment of market fee, ensuring open auction, better facilities, representation of producer companies in Agricultural Produce and Livestock Market (APLM) governance and even denotification of Commission Agents/*Arthiyas* as Madhya Pradesh did in 1985, though it is not widely known and discussed even today. The reform of APLM markets is important as they serve as competitors to CF and 'direct' purchase practiced by food supermarkets and other buyers, and even proposed private wholesale markets, and can help improve the terms offered by direct buyers and contracting agencies to growers as contract/direct prices are unfortunately benchmarked to APLM prices and the CF Act, 2020 also takes this route to contract price determination, to some extent.

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