

**SPACES OF CORPORATE CONTROL IN AGRICULTURE:
A CRITICAL STUDY OF CONTRACT FARMING
IN THE INDIAN STATE OF PUNJAB**

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ABSTRACT

The dissertation is about the corporate control over agricultural production through contract farming. In contract farming, farmers sell a certain quantity of farm products to an industrial company at a predetermined price. In this process, and in principle, the industrial company has a secure access to the raw material it needs, and the farmers have a secure market. Contract farming is a world-wide phenomenon. The dissertation studies contract farming in the Indian context.

The empirical work has been conducted at the national and provincial scales. The empirical information comes from secondary sources as well as fieldwork. The latter was conducted over a period of three years (2007-2010) in the Indian State of Punjab. Punjab has been a pre-eminent case of state-led agrarian development (through Green Revolution Technology) as well as its ‘near-opposite’: neoliberal agrarian development (through Contract Farming). The latter has opened up agriculture to international market, reducing the role of the state, including in credit- provision. Punjab is therefore an interesting place to study agrarian change and development.

The main thesis of the dissertation is that there is an increasing corporatisation of Indian agriculture, and that this process is mediated by the state institutions at the national and provincial scales, with certain ‘developmental’ consequences. Contract farming is indeed a state-mediated capital accumulation strategy that brings together various fractions of domestic and foreign capital. It is a process that exhibits much

geographical variation, and it has consequences for the economic development process, including technological changes, concentration and centralisation of capital, viability of small-scale producers, and conditions of labour working on contract farms.

Contract farming as an agrarian accumulation process has four aspects. It is, first of all, a structure of relations of production and exchange involving productive capital (both in agriculture and industry), mercantile capital, and finance capital; so contract farming is more than just the market-contract between farmers and industrial companies. It is a way to increase productive consumption of technologies in rural areas produced by agri-input corporations. An agri-input corporation (seeds, crop protection chemicals etc) makes its profit by *selling products* to CF farmers, just as a CF corporation makes a profit by *buying products* from these farmers, and not by getting involved with actual agrarian (capitalist) production, which is land-based and which is relatively risky. Corporations such as PepsiCo receive the benefits from financial corporations in the form of loans which are otherwise meant for farmers, as direct subsidies. For instance, the banks are mandated by the Reserve Bank of India to contribute towards priority sector lending. However, banks prefer to lend to a corporation such as PepsiCo than a farmer. Pepsi makes use of the credit and pays, on behalf of the farmers, to the seed companies for supplying seeds to the farmers. Pepsi then recoups its payment during its commodity-transactions with the farmers. An important fact that emerges from this narrative is that CF is about capital accumulation without dispossession of the farmer – i.e. without disturbing the farmer-land relation.

Secondly, as a structure of multiple relations of production and exchange and as a mode of accumulation as associated with these relations, CF has an important condition of existence: the state. CF is internally related to the state. It is a deeply political project and not just an economic one. The capitalist Indian state has been creating conditions for ‘neoliberal agriculture’ that are conducive to contract farming. Indeed, the state has been *directly* promoting contract farming. The state has been doing this, more or less, in the interest of big business (domestic and foreign), ideologically justifying its actions in the name of national development. Using secondary data sources and analyzing the documents produced by the state, I argue that there is a definite shift towards corporatisation of Indian Agriculture in the very discourse – vision -- of the Indian State. Aided by the state, a few corporate giants are controlling the means of production that is vital for agricultural development. Such monopolistic tendencies have severe implications.

Thirdly, CF as a relatively new political-economic project is distinctively contradictory: while CF has become a conduit through which several modern mechanical and biological technologies have been introduced, such introduction of new technologies exhibits a class bias.

Finally, the logic of the operation of the CF unequally affects the conditions of working peasants who are subjected to the pressure of class differentiation, as well as the

wage-workers, who are subjected heightened level of exploitation which is necessary for contract companies to make large profits.

Dedicated to

my lifelines (ma, papa, didi, Mey & Arihan)

***and to all those whose living and working conditions made me question
the kind of society we live in.***

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Chapter 1

Introduction

Section 1.1 The Context

"...what India needs is food for its hungry population. But that does not mean that we have to grow that food. We can easily import it. I think it is time that we got rid of our *swadeshi*- (produced within the country, not imported) jingoism...(Interviewee, Director, SCS Consulting Marketing Firm 2009)

The above quote is from an interviewee, who is the director of one of India's leading firms that aim to work for better relations between agriculture and the food industry. It is a colloquialised expression of the heart and soul of agriculture reforms introduced in India since 1991 - that is, to maintain food self sufficiency via food imports.

In this chapter I will briefly focus on a few strands of intellectual tradition within agrarian political economy that are relevant to structural analysis of change in agri-food systems. Buttel (2001, 18) identifies three dominant tendencies within agrarian political economy (i) Chayanovian Marxism: typified by the work of Friedmann (1978), Mann & Dickinson (1978), and Vergopoulos (1978) (ii) neo-leninist: typified by de Janvry, (1981) and (iii) Sociology of agribusiness globalisation: Friedmann and McMichael (1989).

According to Buttel (2001, 21-22) within the last decade of agrarian political economy, four major foci of theory and research can further be identified: (1) world-historical and world-systemic analyses of agri-food systems, (McMichael and Friedmann - 1989 - as cited in Buttel 2001) (2) global agri-food commodity chains/systems analysis, (Bonanno et al., 1994 - as cited in Buttel 2001), (3) agri-food political-sociological neo-regulationist studies (e.g., Marsden et al., 2000; Bonanno & Constance, 1996 - as cited in Buttel 2001), and (4) neo-Latourian (Latour, 1987 - as cited in Buttel 2001) actor-network analyses of agri-food systems (e.g., Goodman & Watts, 1997; Busch & Juska, 1997; Marsden & Arce, 1994; Murdoch & Marsden 1995 - as cited in Buttel 2001). Much of the work on global (food) regime in the last decade of agrarian political economy draws on Wallerstein's world-systems perspective, and on more straightforwardly Marxist (including Gramscian-type) accounts, but it is also anchored in the political science concept of international regime and in the economic sociology/anthropology of Karl Polanyi (1957) (Buttel 2001, 24).

For instance, Goodman and Watts (1997) argue that during the 1950s, the crop surplus from the USA (in the guise of food aid) was instrumental in creating food import dependence that undermined food-self sufficiency of the developing countries. This was the beginning of the internationalisation of the agri-food systems of the developing world. The current (post 1990s) phase of internationalisation of agri-food system is being dictated by agribusinesses. In one of her seminal works, by Harriet Friedmann, she writes:

“...The agrofood corporations are the major agents attempting to regulate agrofood conditions, that is, to organize stable conditions of consumption and production which allow them to plan investment, sourcing of agricultural raw materials, and marketing...” (Friedmann 1993, 52)

That is, the giant food companies are aggressively transforming the world food economy offering a future of *'private global regulation'*. The quote above shows that the current wave of internationalisation of agri-food system is driven by agribusiness corporations that are looking to plan their investment and control the entire value chain, potentially from 'orchard to aisle' - (Patel 2007, 2). Consequentially, the restructuring of the global food economy (Weis, 2007) is resulting in such agricultural productions that are creating niche markets for fresh or processed foods (McMichael, 1992; Goodman and Redclift 1991; Watts 1990). This involves production of high value “nontraditional” exports (such as flowers, gherkins, baby corn, cherry tomatoes, etc.) from the South and low-value cereals exports from the North (McMichael, 1992).

In 2008, the agenda to promote the interests of agribusiness corporations was presented in the World Development Report 2008 - Agriculture for Development (World Bank 2007). The report calls for innovative ways to discover what agriculture can do for growth and development. Here, CF is suggested as an opportunity to connect small land holders to the big business via the expansion of high-value horticultural crop production controlled by the latter. Many developing countries have started producing nontraditional export crops under CF. They are emerging as New Agriculture Countries (NACs) that

include, Mexico, Brazil, Chile, Latin America, Thailand and India (Nanda 1995, PE20). The new food regime is mostly dependent on agribusiness corporations (Friedmann 1993, 30; McMichael 1992, 345) whose interests are often represented either by the state officials themselves or at times by representatives of industry. As a matter of fact, the idea of 'Agriculture for Development', lays down the role of the State towards creating conditions for capital accumulation. Thus, creating 'right' policies that would help in capital accumulation has been made the primary role of the State, with respect to agriculture.

An emerging sub-field of new agrarian political economy deals with various aspects of 'land grab'. However, this set of literature fails to - (i) contextualise the land grab issue as part of the general capital accumulation process (ii) it does not get into the production process of different kinds of crops that are being produced as a result and finally (iii) it overemphasises the dispossession of the farmer compared to the accumulation of capital through appropriation of surplus value.

The problem with the recent literature on agrarian political economy is that since 1990s agrarian studies have less theoretical coherence than did early 1980s new rural sociology, which was largely focused around the related issues of the pattern of agrarian structural change and the agrarian question. (Buttel 2001, 21). Though through the land-grab studies, there is evidence to show that forceful dispossession is indeed taking place, there is little emphasis on strong tendency toward differentiation and class polarization through development of capitalist agriculture, leading to the formation of the

contradictory classes of agrarian capitalists and rural workers. This view has now been entirely superseded as a theoretical position in agrarian political economy by the international food regimes, commodity chains/systems analysis, regulationist, and actor-network traditions (Buttel 2001, 11)

Another body of literature that comes under the 'globalisation of agriculture' framework is around the issue of 'Contract Farming', henceforth CF (Literature Review to follow in the subsequent chapter), is seen as a system of agrarian production where the farmer and an agri-processing corporation get into contract whereby the corporation agrees to buy back fixed quantity and quality of raw material from the farmer at a pre-agreed price. CF is being advocated as a 'win-win' situation for all concerned participants in the contract. In fact, much of the CF literature is based on specific crops grown in different areas. Such empirical articles provide a sense of spread of CF operations across the developing countries. However, in this dissertation I have deliberately tried to stay away from that approach because I think that if one does crop specific research on CF, then it tends to narrow the scope of the research and the research fails to go beyond the crop specifics. Such research is unable to explain the general principles of how and why CF works. Such existing scholarship undermines the potential of doing critical work on CF.

In other words, the existing empirical research based literature on globalisation of agriculture fails to engage neither engages with the production process of crops via CF, nor does it attempt to outline the implication of new farming styles on the creation and

strengthening of existing relations of production in capital. In other words, there is no relation with what is happening on the ground to the fact that we are heading towards the phase of corporate-monopoly capitalism. Questions related to the kind of changes that are being introduced in agrarian practices to accommodate corporate capitalists are seldom dealt with. Though there is some discussion on the role of the State (Sauer and Pereira Leite 2012, 873; Hunsberger 2010, 939) in the literature on the issue of land-grab, it is usually done with an understanding that State has a developmental role to play. As a result, the global food crisis of 2007-2008 prompted the Brazilian and Kenyan State to control land on the pretext of managing food crisis in future. However, in effect, these States were appeasing the domestic biofuel corporations. The academic discussion, however, points little towards how growing maize (Sitko 2013, 379) which is actually now being increasingly used for agro-fuels would help in maintaining food security? In other words, there is no discussion on the relationship of corporate capital with state in the context of land grab or CF.

Further, there is no denying that literature on land grab explicitly deals with dispossession of the farmer - and in fact, mass scale dispossession of farmer is indeed happening. However, that is not the only implication for peasantry. What if the farmer was not getting dispossessed of his land? Would then there be nothing to critique in the kind of political economic context we are living in? In other words, the critical literature on globalisation of agriculture does not critique the role of corporate capital and the mediating role that State plays in widening the existing class relations of the society with

the increasing globalisation of agriculture - which in this dissertation, I refer to as corporatisation of agriculture.

It is in this context that I situate my present study on CF. My work provides a Marxist class analysis of the phenomenon of CF. I discuss the role of corporate-capitalist class relations in promoting CF. I argue that this interaction between capital and agriculture is mediated by the State. I discuss the class character of technology being used in CF and finally, I argue that new relations of production have been forged via CF that have adverse implications for labourer and peasantry.

The main thesis is that there is an increasing corporatisation of Indian Agriculture, and that this process, which is geographically uneven, is mediated by the State institutions at the national and provincial scales. There are four aspects of this thesis. Firstly, CF as a system of agrarian production is a structure of relations of production and exchange. These relations, more than just the market-contract between farmers and industrial companies, constitute what is called CF. Second, as a structure of multiple relations of production and exchange, it has an important condition of existence: the State. The capitalist Indian State has been creating conditions for 'neo-liberal agriculture' which are conducive to, and provide the economic-political context for CF. Indeed the State has been *directly* promoting CF. The State has been doing this (its direct and indirect interventions in relation to CF), more or less, in the interest of big business (domestic and foreign), ideologically justifying its actions in the name of national

development. Third, the CF as a relatively new political-economic project is distinctively dialectical. While CF has become a contingent conduit through which several modern mechanical and biological technologies have been introduced, such introduction has a class bias. And finally, the operating logic of CF unequally affects the condition of peasants and workers.

Section 1.2: Case Study - India, Punjab & CF

At the risk of slight detour, I will now briefly discuss the agrarian history of contemporary Punjab since Independence. It is hoped that this brief history of development of agriculture in Punjab leading up to CF will provide a preliminary background for a new reader. The state of Punjab occupies an extremely important place in India. It is the country's largest grain producer. In fact, economic development in Punjab has been primarily led by agriculture.

1. Agrarian Land Reforms in Punjab (Post-Independence)

On the eve of India's independence in 1947, the tenancy structure in Punjab contained many features of semi-feudal agrarian economy (such as share-cropping, high rent, other stringent levies often charged on the whims of the landlords, illegal extraction were a common feature) (Jodhka 1998, 223; Chadha 1986, 218). Soon after the partition, the immediate task of the government in Punjab was to break the fetters of semi-feudalism in land relations. The land reform legislations enacted in Punjab had four main components: (i) abolition of intermediaries; (ii) protection of tenants (iii) redistribution of land through imposition of ceiling; and (iv) consolidation of holdings (Chadha 1986,

219). The tenancy regulation acts did have some impact on the agrarian structure of the state, and on the whole, the extent of tenancy declined substantially. For instance, in 1947, 48.6% of area cultivated was under the tenants. Nature of tenancy was of two types: occupancy and at-will (Gill and Ghuman 2001, 30). Tenants at-will were the most exploited class. The landlord could evict them at will. Thus the tenancy acts were aimed at providing security of tenure to such tenants. However, as the state was trying hard to make laws to provide security to the tenants, the landlords on the other hand started to become more alert and started the eviction of tenants-at-will on a massive scale - for 'self-cultivation' (Gill and Ghuman 2001, 31). By 1975, this number had declined to 19.3% (Chadha 1986, 220). Tenancy reforms in Punjab had thus been an utter failure.

Simultaneously in 1950s, ceiling on land ownership was fixed at 30 acres. However, the government was empowered to settle tenants/ejected tenants on the land above the permissible limit of 30 acres. In 1972, the Punjab government fixed the ceiling on individual ownership. It was fixed at 17.5 acres for double crop irrigated land, 27 acres for irrigated one crop and 51 acres for dry-land for a family of five. The objective of the ceiling laws has been to reduce the inequalities in rural areas by taking possession of surplus land over and above the ceiling limit (Gill and Ghuman 2001, 34) However, the landowners bypassed the ceiling laws through manipulation of land records showing double cropped irrigated land as dry-land, procuring fake age certificates of minor children and showing them as independent and separate cultivators, and through *benami* (without name) transfers. Landlords also used their political clout to influence revenue

officials and the police and prolonged litigation to exhaust the poor tenants, exert pressure on the allottees for voluntary surrender. In other words, land reforms in Punjab were not successful.

2. Introduction of Green Revolution Technology and its diminishing returns

Despite the failure of land reforms, the rural economy of Punjab witnessed remarkably fast growth since mid 1960s - proving that land reforms is not a prerequisite for agriculture development. The State pioneered the process of agricultural modernisation and has been the centre of India's Green Revolution (henceforth GR). Performance of Punjab's agriculture can be discussed in two periods - 1950-51 to 1965-66 and 1966-67 onwards (Chadha 1986, 23). In the first phase, Punjab trailed behind many other states in agricultural productivity, yet the basic institutional and economic infrastructure was created during this period through massive public investment. This took the form of irrigation and power development, laying the foundation for agricultural research and extension services, consolidation of holdings, the first round of land reforms and the strengthening of the cooperative credit structure. In a sense, the first phase completed the gestation phase of modernisation of Punjab agriculture. The second phase consolidated the gains of the first period and introduced a highly productive irrigation-seed-fertiliser technology (Chadha 1986, 22). As a result, there was a spectacular increase in agricultural production and productivity. The state is now universally acknowledged as the centre of the green revolution and a model of modern Indian agriculture. Punjab is indeed the success story of state-led agrarian development through the GR.

The GR was heralded as a political and technological achievement, unprecedented in human history (Shiva 1991). It was designed as a strategy for peace through the creation of abundance by breaking out of nature's limits and variabilities. However, over the course of time, the ill-effects of the technology started becoming apparent. Shiva (1991) writes -

"... within two decades of its initiation, GR left Punjab ravaged by violence and ecological scarcity. Instead of abundance, Punjab has been left with diseased soils, pest-infested crops, water-logged deserts, and indebted and discontented farmers..."(11-12)

3) Agriculture Diversification

To deal with this situation, the Punjab Government constituted an expert committee on Diversification of Agriculture in Punjab under the chairmanship of S.S. Johl in 1986 (Johl et al. 1986). Popularly known as 'Johl Committee Report', the committee recommended that at least 20 percent of the area presently under wheat and paddy must be replaced by other competitive and profitable alternative crops like fruits and vegetables, which accounted for less than 2 percent of the gross cultivated area at that time (Kumar 2008, 160). In 2002, the Johl Committee came up with another set of recommendations where it was suggested that one million hectares of area under wheat and paddy rotation should be replaced by other crops, which consume less water, are compatible ecologically and are in demand outside the country (Johl et al. 2005). The province thus initiated a strategy of introducing neoliberal agricultural development via

CF. This included: growing of horticultural crops, opening up of agriculture to international market, increasing the role of corporate sector in agri-inputs, credit provision and simultaneous reduction in the role of the State in all these activities.

Punjab is therefore the pre-eminent case of State-led agrarian development as well as its 'near-opposite': neoliberal agrarian development. Thus, subsidies on fertilisers, irrigation, power and interest were reduced, while procurement prices for agricultural crops were raised and export orientation was encouraged (Dasgupta 2005, 24-25). In other words, there has been a visible shift away from the policy of self-sufficiency and national development (Nanda, 1995) in the priorities of India's Planning Commission.

4. Diversification of Agriculture and Land Policy

An important aspect of the Johl Committee report was to ensure that any agriculture policy that is adopted should take land policy into account. Discussing the dilemmas of land tenancy in contract farming, Singhi and Arora (2008) argue that land lease market should be such that size of the holdings could be increased and legal provisions could be made for giving private land on lease to agribusinesses. Commenting on the problem of land and what the corporations want, my field respondent remarked:

“...we cannot do corporate farming, because the problem in India is that land is still seen as sacrosanct. The corporates are not allowed to buy any agricultural land. So how can you expect us to get involved with India's Agriculture Future if you're not going to give us space to operate...” (Interviewee, Director Tilda Rice, 2007)

Similar sentiments were expressed by senior official from the National Bank for Agriculture Research and Development (NABARD) who was quoted in the Planning Commission document (2006):

"...It is difficult to get a reasonable return on investment in small-land farming since the cost of inputs remained same as in the case of cultivation of larger farms...Liberalising Land ceiling laws is seen as the only alternative for keeping agriculture an economically viable profession (Planning Commission, GOI 2006, 69-70).

In India the current ceiling limits do not allow scale intensive farming in which corporations are interested. Under the new definition of land reform, there is an increase in pressure to allow corporations to undertake direct farm production especially in the areas of horticulture, floriculture and agro-forestry. The agenda of the new land reform¹ design is to alter the land use pattern so as to gear to the profit interests of corporations (Mehta 2002, 34-35). To support the CF system, various state governments are framing laws and wherever required amending² the existing land laws including the liberalization

¹ Andhra Pradesh has undergone a new land reform design, which has been inspired by the 'white papers' on Andhra Pradesh's Agenda for Economic Reform, by World Bank. The chief minister of the province, operationalised the reforms through "Andhra Pradesh Economic Restructuring Programme (APERP)", also funded substantially by a loan from the world bank. The purpose of these 'New Land Reforms' has been that they will be beyond the old redistributive land reform measure and take into account corporate farming etc. In order to accomodate corporate interests, such changes have been introduced in the existing land ceiling and tenancy legislations that would permit consolidation and expansion of size of units to facilitate large holdings beyond the ceiling laws (Reddy 1998, 156).

² States like Gujarat, Maharashtra and Chhatisgarh have enacted laws to allow corporate farming on government wastelands by providing large tracts of these lands to agribusiness companies on a long term lease (Rural Development Institute, World Bank, 2009).The Karnataka Government also amended the land

of tenancy laws and lifting of land ceiling. Punjab is planning to raise the ceiling on holdings in order to encourage large scale farming for making farming a viable proposition in the state. The farmer organisations and the political parties representing larger farmers in Punjab are also lobbying for the removal or relaxing of the ceiling on land holdings in Punjab.

This pattern of land reforms, which is fundamentally different from the redistributive land reform movement of the 1950s, stresses on access to land rather than ownership of land. The new land reform proposals of changing tenancy and ceiling laws shift focus from land distribution to land management (Saxena 2010, 184).

5. Contract Farming

The present study on CF has been done at two scales: national (India) and provincial (Punjab). While the enabling political conditions and macro-aspects of CF are dealt with at the national scale, the actual working of CF on ground is studied in the context of the Punjab. At the national scale, I look at the policies of the State having specific implications for CF. At provincial scale, I discuss how the State of Punjab has opened up agriculture to international market, allowing giant agribusiness corporations to sell their technologies and not only produce raw material for their own processing

reform laws in 1995 to facilitate corporate floriculture. The new laws make a provision for purchase and use of land upto 108 hectares for floriculture. Encouraged by the State policy, many private companies entered the cultivation of floriculture and set up their farms around Bangalore (Roma 2008, 41). States are in active pressure to change their land policies.

industries but also produce niche horticulture crops for export purposes through CF. The state of Punjab is, therefore, an illuminating place to study agrarian change.

Section 1.3: Research Methodology

The objective of this dissertation is to understand the implications of new forms of agrarian capital accumulation in rural India. In order to fulfill the objective, multi-scalar analyses have been adopted - from local to national scale.

(i) Motivation: The Start of an Emotional and Intellectual Journey

My training and learning about economic development issues started while I was growing up in the city of Delhi. While travelling across the city, I saw poverty all around me. I saw people living under the bridges, I saw beggars on the roads, I saw children selling coconut at bus stops, I saw slums - their demolitions, I saw people living along railway tracks. I saw things, but I did not know how to explain them, or what can possibly lead to a situation like this? Fortunately, my parents never imposed religion on me, so I never thought that it was their 'bad *karma*' that brought them to this misery. Neither was I ever convinced that 'the beggars chose to beg and not prefer to do a job instead' - as I heard many people rolling up their car windows and refusing to give them any alms. While growing up, I was uncomfortable with things around me - but I did not know how to explain? I did not understand this kind of development.

I decided to pursue Bachelors in Geogaphy in the University of Delhi. I was advised about the 'multidisciplinary' nature of the discipline and thought that it would

help me in finding some answers. I successfully completed the 15 courses in Geography during my three years of undergraduation. I was amongst the top three students in the University. But I did not learn much. I graduated to pursue my Masters in Geogaphy from India's premier institute, viz, the Delhi School of Economics. I was excited. In the final year, I undertook a small research project on India's informal labour market. Even after completing my study, I felt no closer to any of my questions. Why does 'informal' labour exist? Why are there not enough jobs for everyone? What can 'urban planners' possibly do to account for informal labourers who work as street vendors in the market? Towards the end of my Masters, I began to get disoriented with Geography as a discipline. I realised that the discipline of Geography, as it was being taught in India, failed to provide me with any skill set to comprehend the world and its realities.

I was looking to change my discipline, change subjects. But I did not. I joined the M.Phil (Master of Philosophy - advanced postgraduate research degree) programme in Geography at the Delhi School of Economics, and simultaneously started working. I worked with one of India's premier research institutes - Centre for the Study of Developing Societies (henceforth CSDS). CSDS opened up a whole new gate for me. I was exposed to the 'subaltern' school of the modern period of Indian history. I learnt about the poor and methods of retrieving their voices. I learnt the concept of 'agency' from the horse's mouth. While working on a research project that was primarily an urban media archival project, I learnt how research could be exciting. I interacted with the best of minds in the subaltern school who were living in Delhi and associated with CSDS.

CSDS never brought me closer to the world I was intrigued by, but it helped me realise that I wanted to study more. However, I was sure I did not want to continue my education in India.

I came to York in September 2006 in the Department of Geography. The first course that I ever took at York in Geography was - Space, Place and Capitalism: Themes in Historical-Geographical Materialism. I learnt so much in my first semester at York, that I had not learnt even during the eight years of higher education in the Delhi University. I had finally made a decision that was helping me put together the puzzle in my mind.

Choosing the current research topic was not an easy process, either. I remember the endless questions my advisor asked me about a proposed topic. I scanned through decades of old publications of a left-of-the centre magazine, called *Frontline* (published from Chennai, India), to look for a possible topic that not only requires research but that would also sustain my research interest for the next 6-7 years. I am aware that my critics (who are familiar with *Frontline*) here would say that I chose a magazine that is the 'mouthpiece' of Communist Party of India (Marxist). It may be so, perhaps because some of the outstanding professional social scientists of the country who contribute their research articles to this magazine, also happen to be members of the political party. But I chose *Frontline*, because it is one of the few sources where one can read 'closer'-to-reality journalistic pieces on issues that plague Indian society. While scanning through the pages of the *Frontline*, I realised that rural debts and deaths along with corporatisation of

agriculture were covered rather extensively. My research topic was getting clearer in my mind. I wanted to work on a topic that concerned the lives of the ordinary people, and not what fitted with an intellectual fashion in the academia. I wanted to study something that existed in the real world, and not this or that construction in people's mind, not just how people felt about it. I read about the discussion in the *Annals*, on poverty in which one geographer said that poverty was a social construction (Shrestha 1997; Yapa 1997), and I reacted to, and wanted to avoid, that sort of idealist thinking. For me CF existed independent of how the farmers thought about CF or the rules that guided it, at a given point in time. Yet, how farmers thought about it did not entirely escape my attention.

My passion to comprehend the totality of economic development was matched with my study of *Capital* Vol 1 and similar texts. Things finally began to come together for me, slowly but surely.

(ii) Interviews and Gaining Access

I conducted interviews that were semi-structured in nature. The purpose of semi-structured interviews is that partly, there is an order to it, the questions are definite and precise. Some questions are more open-ended in nature - interview is more like a conversation and accomodates digressions which may well open up new avenues of inquiry that the researcher had not originally considered (Angrosino 2007, 42). With less formal, less standardized and more interactive kind of interviews, I got a better chance of learning from my respondent and understand their perspectives.

As a result of using this method, my respondents were not forced into an artificial one-way mode of communication in which they could only answer in terms of the conceptual grid given to them. My semi-structured research design became a precondition of meaningful communications. It helped to maximise the information flow. Such interviews helped me in adapting to the new ideas that emerged in course of the interviews and tailor more questions directly relevant to the respondent's work (Sayer, 1992, 245-246). Further, during my interviews, especially with the agribusiness representatives, I felt that my questions and probes around the nature of competition in CF were making them uncomfortable. On such occasions, I did not insist on strict answers to the questions posed. However, what I learnt in the process was that the issue of competition is a 'sensitive' matter and that it definitely needed to be followed through albeit using other sources.

I undertook this study for several different kinds of participants, and there were separate questions for all of them. For instance, I interviewed contract farmers, non-contract farmers, labourer working on contract-farms, labourers working on non-contract farms, representatives from agribusiness industry, banks, union members, lobbyists for the industry etc. So, for instance, when I was interviewing a representative from agribusiness industry, I ensured that I had read and reviewed all that the particular company had done in the field and so on. I did similar study with banks as well. I asked very specific questions to them. I went to the field with more general questions for contract farmers and labourers.

Further, I ensured that the interviews that I conducted were *in-depth*. My main focus was to understand CF from different perspectives and probe the participants specifically on what it meant to them. I wanted to explore all nuances possible, capture the grey, black and white areas that might be missed in either/or questions that merely touch the surface of an issue. However, I also wanted my interviews to flow naturally and often used my questions as mere guide to begin conversations. At times, I used a variety of probe questions designed to keep the interview moving in productive directions (Angrosino 2007, 43).

Even though I was well acquainted with the subject matter, as a good researcher I preferred to cultivate naivete (Angrosino 2007, 57). That is, I was never afraid to question the obvious or taken-for-granted. I wanted to come across as someone who wanted to learn from 'them' and I was willing to 'soak-in' everything that they would offer. There were many times, when I wanted to interject my participant and ask another question. However, I tried to follow the etiquettes of conducting interviews but did not do so, for, it could have been construed as being rude and I did not wish to give any such signals.

I had rather varied experiences while interviewing the labourer on the one hand and the elites on the other. Herod (1999) discusses how interviewing foreign elites have different meaning than employing 'local' elites. However, when I discuss it, I mean it rather differently. When I was beginning to interview labourers working on contract farms, I was indeed, very conscious of my petty bourgeoisie class position. Not just conscious, I think I was also partly guilty of it. In fact, to some extent my social position

may have impacted my field work. For instance, I began the interview process of interviewing 'labourer not working on contract farms' - by going to the districts and villages where there was no instance of CF. In fact, this was the suicide-belt³ of Punjab. I was escorted to these villages by Daljit Ami, noted journalist/activist-film-maker from Punjab. To say the least, I was overwhelmed. I had never seen 'that kind' of Punjab – so poor, so dirty, so lifeless, so empty, some just lying on their cots - awaiting death. There was no evidence of 'development'. I was told that the success of the Green Revolution had only marginally reached these villages. As a result, most of peasants were heavily indebted because the excessive costs of the intensive use of chemicals and pesticides in the fields, on the advice of the agricultural experts. These peasants who had few acres of land over-burdened themselves by taking loans to match the increasing cost of production. However, lack of expected return on the investments made many peasants suicidal and some started swallowing that same pesticide to kill themselves. Some of the family members worked as daily wage workers on non-contract farms. At such times (though they were rare), I could barely ask my questions.

Subsequently, I travelled to the 'richer' belt of Punjab where rich peasants were involved with CF. My aim was now to talk to the labouring people on those farms. Initially I was extremely conscious of what I was doing. I felt that I am only taking from them – and not giving anything back to them. While I was on field, I even questioned my objectives in life. I let emotions take charge on a few occasions. So when I interviewed

³ Parts of Gurdaspur, Amritsar, Ferozepur, Faridkot, Bhatinda, Sangrur, Muktsar, Patiala and Mansa fall under the suicide belt of Punjab. (Sidhu and Jaijee 2011, 133)

labourer, I asked quick questions. I did not feel like 'wasting' their time with me. I felt this was a very one-sided relationship, where I was the only beneficiary. I could not, and did not want to give them any 'false-hope' of some (immediate) practical benefits arising out of my research project. Notwithstanding such a moral turmoil in my mind, I still did manage to talk to approximately 70 labourers working on contract farms. But the interviews could not last beyond 15-20 minutes in each case. I am not sure if it was a methodological challenge or an emotional challenge. But it was difficult at many levels. As I spent more number of days on the contracting fields and as my thought process evolved, I felt more at ease with things around me.

On the other hand, while I was also interviewing the corporate 'elites', I was relatively at ease interacting with them. I was conscious of taking their time, but I was not apologetic about it. They were just a means towards an end – an end towards understanding how CF works on ground. My academic background, my identity of being a student from a Canadian university wanting to understand new contours of Indian agriculture made me an 'inquisitive and dynamic young blood' – even 'worthy' of getting a job with them and becoming one of them! I also played the part rather well! Most of the respondents from agribusiness firms were happy to be interviewed by me. The long interviews were given with a hope that 'my research' could 'help' them to further their CF operations. Some of them also saw the project as a 'collaborative' venture something out of which even they too could gain. However, I tried my best to exploit my position and continued the interviews. At many times, the discussion continued well over two hours as

both me and the interviewee were feeding off each other. On other occasions, the sessions would end between 30-40 minutes.

This brings me to the question of gaining access to research participants. My class-position played a substantial role in this. It was relatively easy for me to gain access to the representatives in agribusiness companies. My English education, the fact that I was a University student, and my extended family networks and connections helped me in exploiting my petty bourgeoisie class-position. My respondents were educated, understood the need for 'research', however the kind of research I was undertaking – it was a little difficult for them to comprehend – a research project with no potential financial gain was seen like 'non-productive' activity by many of my respondents. For me, knowing that the interests of the elite are tied to the global economy and they are partly responsible (apart from media) for propagating the bourgeoisie 'myth' about CF, an understanding of their opinions was crucial. Apart from contacts that were made available by my family and friends, I prepared a list of all the companies in India that were involved with CF. I attended a conference in Mumbai that was otherwise meant exclusively for the promotion of export base by agribusiness industry. However, I was allowed to be a silent participant. I made my contacts in the conference and followed them up for interviews. I travelled across the country for the interviews between Delhi, Punjab, Mumbai, Pune and Bangalore.

(iii) Two rounds of Fieldwork

In course of this research project, I undertook two rounds of fieldwork. The first fieldwork trip was extensive. I was on field for eight months. I travelled between Delhi-Punjab-Mumbai-Pune-Bangalore. In Punjab, I travelled to the following districts – Ludhiana, Jalandhar, Sangrur, Patiala, Moga, Fatehgarh Sahib, Barnala, Bhatinda, Faridkot. In this field-trip I collected more than 80% of my data for the research. I have presented my preliminary research findings in many international and national conferences and got valuable feedback that helped me to sharpen my arguments. I also taught a fourth year undergraduate seminar course during this time and in one of the classes, I discussed various aspects of my thesis. My second field-work trip was in November-December 2010. This was done to fill in the gaps in information from the research done previously.

(iv) Observation

Observation has a key role to play in social research. Our ability to observe the world around us forms the basis for our ability to make commonsense judgements about things (Angrosino 2007, 53). Observation begins the moment the researcher enters the field setting, and strives to set aside all preconceptions and take nothing for granted. As a result, the process of observation begins by taking everything in and recording in as much detail as possible, with as little interpretation as possible (Angrosino 2007, 38)

While I was travelling for my interviews, waiting for the interviewees, I would often spend the time observing the surroundings. I would, therefore, conduct observations

and quietly take down notes everytime I would not be conducting an interview. This helped me later while I was transcribing my interviews as the observations helped in reaffirming the content of the interviews, even though only partially. Such participant observation helped me in getting exposed to the day-to-day/routine activities of the participants (contract farmers, labourers) in research setting. Thus, participant observation facilitated data collection in the field.

An important thing about observation on contract farms was to have a 'good memory'. It was not possible for me to write everything I saw. At times, I was in the middle of a conversation, and would see something that I would like to 'note down'. would have meant beaking the conversation flow. So as a result, I would mentally note it down, and make it a point to return to my notebook as soon as possible and and write it down.

I conducted my research on private contract farms. However, meeting with farmers in open fields, with labourer working in the background, and trustworthy research assistants along with me, I felt that I was in the safety of a public space. When I would interview labourers on contract farms, I often felt that I was being observed as well by the labour manager or contract farmers themselves. However, I paid little attention to it.

(v) Sampling

Sampling must be compatible with the assumptions belonging to the method or strategy that it serves (Morse and Niehaus 2009, 63). Deciding who should be

interviewed or observed, is a significant issue in a qualitative enquiry. In general, it is assumed that to be able to purposefully select participants for the study, one must be familiar with the knowledge and experiences of the potential participants (Morse and Niehaus 2009, 63). A qualitative sample should be representative of the phenomenon under study. Because the researchers are interested in identifying meaning, and the characteristics of phenomena, they must know something about the participants to select the best person to be in the study (Morse and Niehaus 2009, 64).

In case of CF in India, it was indeed difficult to do so. There were a couple of questions in my mind before I began my research work - for instance, how many contract farmers should I interview? How many interviews with labourers will be sufficient? And so on. However, during my preliminary field trip, I realised that drawing out a sample of contract farmers I should (ideally) interview would be very difficult as there was no government record that could tell me the total number of contract farmers in the state or contract farmers in each district/village and so on. Drawing out a sample number was thus difficult. I therefore designed my research in a way that after the first contract farmer was interviewed, I relied on his networks to find the next set of farmers and so on. This method is known as the snowball sampling method (Morse and Niehaus 2009, 65). Thus, instead of having a specific agenda on mind about who all and how many contract farmers and labourer should I study in advance, I decided to establish this as I went along with my work. Sayer (1992) says -

[In this method] instead of specifying the entire research design and who and what we are going to study in advance we can, to a certain extent, establish this as we go along, as learning about one object or from one contact leads to others with whom they are linked, so that we build up a picture of the structures and causal groups of which they are a part..." (244; brackets inserted by author)

I kept following this method until I observed a certain saturation in the range of responses. At that point, I knew that the number of interviews I had conducted were thus 'adequate' enough.

I tried to cover as many districts as possible in the State of Punjab. However, limitation to resources restricted put a limit to the number of districts I could travel. My field work was spread across seven districts of Punjab and three cities. I took 191 interviews in total:

Table 1.1: Summary of Fieldwork Interviews 2008-2010

State/District	Farmers in CF	Farmers not in CF	Labourer on CF	Labourer not on CF	Companies involved with CF	Banks	State Reps	Lobbyists (FICCI,	Union Members	Other Researchers/or organisations
Fatehgarh Sahib	10		15							
Sangrur		5		7					3	
Patiala	5	4	20	8					1	
Mansa		2		10					2	
Ludhiana	2		18	7						
Jalandhar	8		20	5						
Chandigarh										5
Delhi					7	1	5	10	1	4
Pune					2					
Mumbai					2	2				
TOTAL (191)	25	11	73	37	11	3	5	10	7	9

Source: Fieldwork (2008-2010)

(vi) Positionality

The 'subaltern' school, the school of thought that takes a post-modernist approach to the studies of peasants (Amin 1987, 176), emphasizes in their own way, the insider/outsider dichotomy of doing research. Both, during my fieldwork and while I have been writing this dissertation, I have also been reflecting upon the insider/outsider or 'situated knowledge' idea of positioning oneself as a researcher. I think, unless I am a farmer who is researching on agriculture or a refugee myself who wants to work on refugee issues, or a *dalit* researcher who writes on lives of *dalits* - I will remain an outsider attempting to peep into a world that I do not inhabit. The insider-outsider dichotomy assumes that 'insider' would be more close, more direct, and thus would have more 'true' access to knowledge. Following Harvey (1996) I wish to reject the 'vulgar conception' of 'situated knowledge' that:

'...dwells almost entirely on the relevance of individual biographies: I see, interpret, represent, and understand the world the way I do because of the particularities [of] my life history. ...[In this vulgar conception]: "since she is black and female of rural origins she cannot possibly have anything authentic to say about conditions of life of the white bourgeoisie in New York City" or, more commonly, "because he is a white, male, western, heterosexual he is bound to be tied to a certain vision of how the world works" ' (p. 354 - brackets inserted inside the text by author)

I am not denying that one's individual biography has some influence on how one sees the world. But my biography, and indeed how I understand the world, is more determined by my theoretical perspective, i.e. by my historical-materialist-dialectical world-view, than by the fact that I am a brown, heterosexual, city-bred, English-educated, woman studying in a foreign university.

The insistence on credibility of 'situated knowledge' assumes that an insider has 'more right' over his world than an 'outsider' who just tries to 'colonise' and by extension also exploit the conditions of the insider. It also assumes that the insider will naturally produce 'correct' interpretation. Such arguments make little sense to me. An entry point into a research field site is inevitably defined by particular perspectives that highlight some matters while occluding others (Ollman 2003,99). Ollman calls it *vantage point*.

“...A vantage point sets up a perspective that colours everything that falls into it, establishing order, hierarchy, and priorities, distributing values, meanings, and degrees of relevance and asserting a distinctive coherence between the parts. Within a given perspective, some processes and connections will appear large, some obvious, some important, others will appear small, insignificant, and irrelevant; and some will even be invisible...” (Ollman, 2003,100)

My positionality/vantage point, comes from my understanding of Marxist theory of capitalism and Marxist method of dialectics. It has helped me become a better social

scientist. Understanding the Marxist theory of society has helped me to understand that I am, in fact, on the right side of the struggle. As Ollman says -

"...on learning about it and where we fit into it, we can now decide to stop acting as we have been and what more or else we can do to better serve our own interests. We can be chose what side to take in this struggle and how to conduct it..." (Ollman, 2003, 20).

Therefore, what guided my positionality during the course of field research and thesis writing was my theory, more than anything else. In whose interest do I wish to speak? What do I wish to say? Why what I want to say is important? Why should people listen to me? All these questions helped me to stay focused on my project, at different stages, and do my job.

My positionality also comes from my politics which is consistent with my theory. The idea of the unity of theory and practice was central to Marx's intellectual orientation (Hammersley 2000, 39). I have been politically active since I joined the PhD programme. I have been involved with Union Politics of York University and been engaged with other political struggles.

(vii) Secondary data collection

I have made substantial use of secondary data towards my analysis. A data source is considered secondary when it is a published or unpublished piece of work that has not been generated by the researcher but is produced by others. A secondary data source

usually describes, summarizes, analyzes, evaluates and, derives from or based on primary source materials - for instance, newspaper reports, research publications, magazine articles, Government publications, reports published by industries' lobbies, published data sources and so on.

1. Media Reports: I made extensive use of the resources available in libraries at the Indian Agricultural Research Institute (Delhi, Pusa Institute), Agricultural and Processed Food Products Export Development Authority (Delhi) and National Council of Applied Economic Research (Delhi). These libraries helped me access specialised collection on agricultural issues in India from 1995-2008. I could also access various agriculture related monthly magazines that proved particularly useful. During this process, I found a very relevant agri-marketing magazine, that I would not have been able to access otherwise. Through this magazine, I got an opportunity to attend 'Fresh Produce Conference' Mumbai, 2009. This international conference was meant for the 'people in business' of horticulture export from India. I was allowed to participate in the conference and as a result was able to find good contacts who could discuss the business of CF with me later on
2. Industry Lobbying Associations: I used my contacts to get me access to high ranking officials from FICCI (Federation of Indian Chambers of Commerce and Industry), ASSOCHAM (The Associated Chambers of Commerce and Industry), CII (the Confederation of Indian Industry), Punjab CII. Through these officials I

was able to access various reports on the status of horticulture industry, CF, status of agriculture reforms, progress of CF operations in Punjab, etc. These reports provided me with relevant and high quality data.

3. Research Reports - I undertook few interviews with established academics in the field of Agriculture Economics in Punjab. For instance, I interviewed Professors from the Punjabi University, Patiala; and Centre for Resarch in Rural and Industrial Development, Chandigarh. The scholars from these institutions provided me with their own publications and research reports on the crises of agriculture in Punjab that helped me towards the understanding of myriad issues involved.
4. Government Reports - I was able to access many reports produced by National Agriculture Commission, Government of India. Further, the easy online availability of National Five Year Plans of India contributed to my writing as well. I gathered much information from the Ministry of Agriculture, Government of India.
5. Data Sources - I also made extensive use of data available on Indiastat.com which has been made accessible through York University. Lok Sabha debates constitute an excellent source for finding the latest data on some of the emerging issues in the country.
6. Speeches - I also made use of speeches given by Jawaharlal Nehru, Manmohan Singh and Montek Singh Ahluwalia,

7. Labour Unions - I also got a lot of material on general labour issues in Indian agriculture in leaflets, pamphlets and annual reports from many active labour unions in the country.

In other words, this research project has followed a mixed method approach that has a qualitative core component and quantitative supplementary component (Morse and Niehaus 2009, 14). I use quantitative methods of analysis where I make use of data to discuss phenomenon that are temporal in nature - for instance in chapter 05, I discuss peasant differentiation and so on.

Section 1.4: Organisation of the Dissertation

Now that I have contextualised how I will discuss the issue of CF and how I have undertaken this study, in this section I provide a brief outline of the structure of the dissertation. This dissertation has been divided in seven chapters. In the following chapter I provide a detailed review of existing literature on CF. I discuss the strength and weaknesses of the way CF has been conceptualised so far. I then provide a brief alternative framework to understand CF. This chapter is followed by four empirical chapters. Chapter 3 shows how CF as a system of agrarian production is a structure of relations of production and exchange between productive, mercantile, finance and agrarian capital. In Chapter 4, I show how as a structure of multiple relations of production and exchange, CF has an important condition of existence: the state. The capitalist Indian state has been creating conditions for 'neoliberal agriculture' which are

conducive to and provide the economic-political context for -- CF, and indeed the state has been *directly* promoting CF. The state has been doing all this (its direct and indirect interventions in relation to CF), more or less, in the interest of big business (domestic and foreign), ideologically justifying its actions in the name of national development. In Chapter 5, I argue that while CF has become a contingent conduit through which several modern mechanical and biological technologies have been introduced, such introduction has a class bias. I show that technology in itself introduced via CF is progressive in nature, but when it interacts with society then its class-bias emerges. The chapter 6 sheds light on the logic of the operation of CF in terms of its effects on the conditions of working peasants and workers. This chapter is an initial effort to bridge the gap that exists in the literature on labour on contract farms.. In the last and the final chapter of the dissertation I summarise the main arguments made in the dissertation and discuss its contribution to the different bodies of literature.

Chapter 2

Review of the Literature & Alternative Conceptual Framework

Section 2.1 Introduction

India witnessed key economic reforms during 1990s. The resultant New Economic Policy (NEP) crafted a special role for agriculture in the economy, whereby agricultural exports emerged as a means to earn foreign exchange and secure fiscal stability. CF is one of the ways in which different agribusiness corporations come together to effectively control various aspects of agricultural production in search of new sources of furthering their capital accumulation. What makes CF different from earlier forms of agrarian capital accumulation (such as Green Revolution) is its totalising logic. i.e. from the sowing of seeds to their harvest and then post-harvest care, the entire agrarian production is managed and controlled by agribusiness corporations.

The existing literature has shed light on several aspects of CF. The objective of this chapter is to provide a detailed and critical review of the literature on CF and how it has been conceptualised across the world. Further, I will present a brief alternative framework for understanding it in the Indian context. This chapter has thus been divided into three main sections. In the first section, I will discuss how the existing literature

conceptualizes CF. I specifically look at three aspects of conceptualisation: Vertical Integration, benefit for smallholder contract farmers, and impact of CF on National Economic Development including technological development, and labourers. I will then provide a critique of this literature in the second section. In the third section, I will offer an alternative theoretical framework to understand CF which informs – and which is informed by -- my own empirical study of CF in Punjab.

Section 2.2 Existing views on Contract Farming

1. CF is about Vertical Integration

Many scholars have drawn attention to the fact that CF promotes linkages between farmers and agribusiness corporations involved with food processing. That is, CF promotes vertical integration. According to Watts and Little, (1994,4) CF or contract production can be simply defined as:

"...Arrangements between a grower and firms (s) (exporters, processors, retail outlets, or shippers, for example) in which non-transferable contracts specify one or more conditions of marketing and production..."

Here, the contracting firms/agribusiness corporations also assist the farmers by providing them with good quality seeds, plant-protection chemical sprays, herbicides, etc. (Anika Trebbin and Hassler 2012, 416). The purpose of CF is, thus, to produce high quality niche commodities that can be processed into consumables (e.g. sauces, ketchups, pickles, chips, etc.) The farmers are assured a fixed buy-back rate and the contracting firms, on the other hand, are assured a given quantity of high-quality produce at a fixed rate

(Punjabi 2007, 2; Sharma 2007, 332; Dhillon and Singh 2006, 20; Fan and Gulati 2008, 141).

The decision to contract out via vertical integration is a way to avoid market imperfections and to reduce transaction costs by agribusiness corporations to obtain raw products (Key and Runsten 1999, 387; BIRTHAL, Joshi, and Gulati 2005, 2). That is, it is assumed that in the 'free market' economy, there would be frequent crisis, whereby the cost of the commodity will either drop down considerably or else it will sky-rocket. Since there is no way to 'predict' the stability of the market, many advocates of CF argue that a contracting arrangement, whereby the prices are pre-determined help both the farmers and the agribusiness corporations. In this way, the market imperfections get avoided. Further, it is said that CF helps in the reduction of transaction cost for the agribusiness corporations. For instance, when an agro-processing corporation requires the 'chip quality' potato for making chips – they have specific requirements – such as searching for the right kind of potatoes, then bargaining costs for negotiating a price with the farmer, then supervising costs of ensuring that the farmer delivers potatoes of the 'right' quality and quantity. All these costs are taken care of by CF arrangements whereby the contract-farmers provide the services (as mentioned above) that help in reducing of the transaction costs for the contracting corporations.

While the issue of vertical integration strictly deals with Agro-processing corporations building on a back end to ensure delivery of quality raw materials for their processing industries, many scholars have also talked about CF as being part of a global

exchange relation. In such instances, the purpose of CF is to produce high quality niche commodities (fresh fruits and flowers) (Little and Watts 1994, 7) that can be exported to European and American markets (Minten, Randrianarison, and Swinnen 2009, 1730). In other words, CF helps to create a link between the producers (of the third world) and the consumers (of the first world) (Jia and Huang 2011, 657; Kirsten and Sartorius 2002, 505; Singh 2002a, 1623; Glover and Kusterer 1990, 77; Glover 1987, 441). In other words - CF led agrarian production in one part of the world economy links to consumption in other parts of the economy (Barrett et al. 2012, 716; Raynolds 2002, 783; Gwynne 1999, 213; Buch-Hansen and Marcussen 1982, 15). In the context of India, Trebbin and Hassler (2012, 411) and Fan and Gulati (2008, 141) discuss how the links between contract farmers and agribusiness buyer corporations have been made tighter to replace conventional open-market relations. Joint ventures and acquisitions, tighter control over investments through the consolidation of equity and formation of subsidiaries, etc. are a few of the many ways through which agribusiness corporation expand their control over the market (Morrison, Murray, and Ngidang 2006, 198; Banaji, 1997, 207)

2. CF and small-scale farmers

Much of the impetus for promoting CF has come from the World Bank, Food Policy Research Institute and the Asian Development Bank that all specialise in managing 'development' issues. In recent years 'Agriculture for Development' (WDR, 2008) has been their hallmark goal. They look at agriculture as a potential engine of

growth early in the development process and of agriculture as a major force of poverty reduction. In this context, they argue that smallholders should be encouraged to become more competitive (WDR, 2008, 138–157). Thus CF, as a strategy of agriculture-for-development is often seen as a mechanism that integrates and subordinates agricultural production in the less developed world to export-oriented agribusiness corporations (Echanove and Steffen 2005, 17).

Most advocates of CF are of the opinion that CF is all about small-scale peasants and that their linkage to high value commodity chains catering to the international market will bring prosperity to them. Little and Watts (1994,6) trace the origins of this thought to Green Revolution (GR). They argue that the policy makers felt that the advantages of GR were not equally distributed and that the poorest 10% reaped no benefits. In order to compensate that, it was felt that the excluded smallholder should benefit in the next wave of 'agriculture development'. Hence rhetorically, CF is touted as the saviour of small farms on the verge of collapse in the American South or Midwest (Watts 1994, 33) and also in India (Punjabi 2007, 1).

There is thus, a general consensus in the literature that CF is beneficial to the small peasants in developing countries (Kirsten and Sartorius, 2002, 505). Successful cases where small-scale farmers have benefited from CF operations are particularly found in cultivation of horticulture crops (Glover 1987, 445; Little and Watts 1994, 5,7; Watts 1994, 34,37,58; Singh 2002b, 1625; Singh 2004, 5584; Sharma 2007, 38; Setboonsarng and ADBI 2008, 4–5; Echanove and Steffen 2005, 167, 170). Smallholder CF is the main

source of certified cocoa organic exports from Rural Uganda (Jones and Gibbon 2011, 1599). The definite improvement in the household income of the farmers from such schemes generated productivity gains in other household activities in Zimbabwe (Jones and Gibbon 2011, 1600). The increase in income of contract farmers is a direct consequence to the increase in cost of production and the efficiency gains from the adoption of better technology, management and production practices (Trebbin and Franz 2010, 2051). The proponents of agribusiness promotion argue that it leads to big jumps in incomes and generates employment in agriculturally backward regions. This provides a break from low levels of productivity and instability in production, thus putting the local economy on a dynamic path of growth and development (Kirsten 2002, 12; Miyata, Minot, and Hu 2009, 1781; Singh 2002b, 1622). Through CF, transaction costs are significantly reduced for everyone in the value-chain and thus brings significant financial benefits to all participants, including farmers (Pritchard and Connell 2011, 238; Porter and Phillips Howard 1997, 235; Porter and Phillips Howard 1995, 68; Njuki et al. 2011, 438). Studies show that incomes from CF increased for a moderate (30-40%) to a high (50-60%) proportion of participants (Little 1994, 221). In an IFPRI study, 51% of the contract farmers reported a small increase and another 25% perceived a large increase in their income from CF Schemes (Miyata, Minot, and Hu 2009, 19). Based on studies in Africa, India, South East Asia and Latin America, it seems to be confirmed that CF contributes to smallholder's welfare by improving income (Masuka 2012, 580; Chakraborty 2009, 88; Erappa 2006, 36; Anim 2011, 5066; Singh 2002b, 1622, 1624,

1632; Gill and Gill 1990, 2509; Setboonsarng and ADBI 2008, 4; Glover and Kusterer 1990, 7). In another study done in Latin America, Clapp (1988:15) writes that income has risen steadily since CF began.

Easy access to inputs has been another reason for farmers to join CF. For example, over 90% of farmers in Rushinga district, Zimbabwe, admitted that they could not afford to buy all inputs from the open market at the start of the season. They had neither had cash nor access to credit with which to buy inputs. However, the unstable macroeconomic environment resulted in severe shortages and the escalation of prices of inputs. Some farmers recognised these constraints and preferred to participate in contracts as companies had a better chance of sourcing inputs (Masuka 2012, 578). One of the principal motives for peasants to enter into a CF arrangement is the promise of a having an assured market for their produce. For instance, getting an assured buy-back market with 'reasonably' fair price proved good for contract farmers in Lao PDR and Cambodia (Setboonsarng and ADBI 2008, 3). In fact, access to a ready market, in the absence of State's ability to provide an alternative, is an important reason why contract farmers in Mexico (Echanove and Steffen 2005, 166) or in Malawi and Uganda (Njuki et al. 2011, 426), for instance, get involved with CF.

An uninitiated consequence of getting involved with CF operations for a few farmers has been a change in the gender dynamics in households. In Dominican Republic (DR), the processing tomato industry exemplifies the production relations in small-scale agriculture operations as they intersect with domestic relations (Raynolds 2002, 790). For

instance, in DR, rural domestic relations have historically hinged on the ideology of a male breadwinner and authority figure. Women's work in family has been largely invisible. Gender inequalities in farm households have been reinforced by agrarian policies, which grant credit, land, and other resources to men who are seen as 'heads of household.' However, with the introduction of CF, most women have not only encountered higher family income, they are also evolving their role as decision makers in the household.

A few scholars have critiqued the unequal relation between an agribusiness corporation and a smallholder farmer. This critique has come particularly from scholars who argue that there is in fact an unequal nature of the relation between an MNC like Pepsi and a farmer in village within the realm of exchange relations. Thus, here, what gets over-emphasized is -

"... The uneven nature of their relationship often leads to the unfortunate exploitation of the farmer [by big companies], leading to 'meaningless' economic progress..." (Singh 2007, 2002; Ghosh, 2003; Clapp, 1994; Watts, 1994, 1992; Glover and Kusterer, 1990; Brenner 1977).

In other words, contract farmers are 'controlled' by the Corporation and so they tend to 'lose their autonomy' after entering in contracts with corporations. This is referred to as 'disguised proletarianization' (Watts, 1992, 1994; Clapp, 1994) The contract specifies in advance each operation the peasant has to perform, leaving little discretion in the design

of the task: the peasant is required to work but not to think. For example, peasants are “told/instructed” to grow crops in specific way, thus leaving not much freedom for them to be 'innovative' (Ghosh, 2003; Singh, 2002, 2004, 2007; Echanove, 2005).

Another body of work argues that CF leads to increase in economic difference amidst farmers, who are involved with CF and those who are not (Watts, 1994:57; Little 1994, 222–224; Panini, 1999, 2170; Setboonsarng and ADBI, 2008, 4; Chakraborty 2009, 88 and Anim 2011, 5067). This happens because the returns from farming have increased for those who can invest more in the seeds, crops protection chemicals, etc. (Singh 2002b, 1633).

3. Contract Farming and National Economic Development

An important implication of capitalist agrarian production like CF is the increase in the usage of technology, leading to an increase in the cost of production. CF is seen as a vehicle to introduce new on-farm technologies (Watts 1994, 34), making it investment-intensive. For instance, investment on tractors and allied equipment, irrigation structures and farm infrastructure, etc., has increased on contract farms (Sharma 2007, 38; Johl 1986, 11; Setboonsarng and ADBI 2008, 5; Glover and Kusterer 1990, 9; Clapp 1988, 9). The use of patented seeds also increases the cost of cultivation for the farmer (Punjabi 2008a, 13). In India, agri-input industries in the business of seed, fertilisers, agro-chemicals - such as Escorts Ltd, Tata Chemicals, DCSCCL, Mahindra Shubhlabh, ITC etc. have spread out their operations significantly since late 1990s (Sharma 2007, 26; Pal 2008, 150).

Relatively easy access to credit by banks and other financial institutions (Singh 2002b, 1622; Erappa 2006, 42) has helped the contract farmers use more seeds, bio-fertilisers, bio-pesticides, technical knowledge, inputs on credit, and certification support (Singh 2002b, 1624; Singh 2006, 5363). Dev and Rao (2005) note that extended drip irrigation system accessed by credit (from public/State banks) in Andhra Pradesh, India, led to increased gherkin yield and increase in income in return for the contract farmers.

CF is also said to have implications for labour. The literature on labour in CF primarily deals with different kinds of labour (women, migrant and child) that are required on contract farms. Labour requirement has increased in farms where contracted production is carried out. Little (1994:225) notes that in Africa, annual labour requirements for many horticultural crops exceed five hundred person-days per hectare. Hiring of labour by contract farmers, therefore, is widespread. The demand for labour is seasonal as well as gender specific (Gwynne 1999; Watts 1994, 16). CF has increased employment opportunities for women (Sawers 2005, 47) as work on contracted farms require - flexible and docile labour. These conditions are better met with female labor, as women are perceived to be homemakers and, therefore, low-cost, sincere and more obedient workers than men (Panini 1999, 2170; Singh 2002b, 1632; Raynolds 2002, 784; Singh 2003, 4). Some articles show that introduction of CF has introduced changes in gender dynamics whereby women have started contributing towards household expenses and have experienced greater control over decision making process which otherwise has been the sole prerogative of men in areas where CF is happening (Raynolds, 2002:784;

Carney 1988, 335; Konings 1998, 128; Njuki et al. 2011, 426).

Further, evidence in the literature suggests that horticulture schemes also rely on migrant labour. In San Quintín, located in the Baja Californian peninsula, local producers use Oaxacan day laborers for their agricultural operations. It becomes possible to hire migrant temporary labour force for wages below their level of reproduction because of the presence of subsistence agriculture in their 'home-towns' (Novo 2004, 218; Little 1994, 225). In Indonesia, 'failed' transmigrants compete with the local population for jobs on the contracted plantations that often lead to conflict between them over both land and jobs (Li 2011, 288). Also, child labour on a contract farm provides a 'cheaper' (than women) labour option for contract farmers (Singh 2002b, 1633; Venkateshwarlu and Da Corta, 2001; Porter and Phillips Howard 1997, 234)

Contract-farmers also require labour supervisors to 'check' labour on farm. For instance, when work is particularly unpleasant and labour's low effort can damage crops or machinery, then the job of the supervisor begins on a contract farm (Key and Runsten 1999, 387. Thus, the task of supervision is to convert labour power to productive labour (Clapp 1988,10).

Section 2.3: Critique of the Literature

As discussed so far, the existing literature on CF shows many positive ideas about CF. In this section I will provide a critique of the of the dominant themes that emerge from the literature.

(1) Small-Peasant Thesis of CF

This critique is driven by one query - how small is the 'small peasant' on Contract Farms? Can small-peasant be seen as one homogeneous category across the world? FAO report on smallholders and traditional farming communities, defines smallholder as:

"...Smallholders are small-scale farmers, pastoralists, forest keepers, fishers who manage areas varying from less than one hectare to 10 hectares..." (Altieri and Koohafkan 2008, 18)

Smallholders are characterized by family-focused motives such as favouring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption. In Latin America, the average size of the landholding is 1.8 ha (Altieri and Koohafkan 2008, 2, 17-19). In Kenya, small/middle peasant land holding size is from 1-10 acres (Barkan and Holmquist 1986,1). In Canadian context, Bridi (2010, 126, 175) in his unpublished thesis shows that a small farmer owns less than 100 acres of land. Owner of 100 acres is not considered a smallholder in context of developing countries. In other words, in the literature on CF, there is no conceptualisation of what a 'small peasant' includes.

For instance in India, beneficiaries of CF have been medium to large peasants (Singh 2002, 1621), (Dhillon and Singh 2006, 27), (Sharma 2007, 26,35). These farmers have access to more than 15 acres of operational land and are willing to take risks to grow crops on contracts for atleast 5 acres of their land. 15 acres of operational land might be considered 'small-scale' according to the FAO, but in the Indian context, a

person who own 15 acres of operational land is not a small/marginal peasant by any standards. Again, to grow *Jatropha* in Tamil Nadu, India, agribusiness corporations prefer to work with farmers who have more than 20-25 acres (10-12ha) of operational land with irrigation infrastructure for higher yields (Ariza-Montobbio 2010, 887). In India, a peasant who has access to 20-25 acres of operational land is considered a large peasant.

In case of Latin America, where the contract crop being grown has higher risk of failure, it is expected that contract farmers bear this risk – and in such a situation, the firms have an incentive to contract with larger growers (Key and Runsten 1999, 386), (Korovkin 1992, 229). In a survey, it was found that in Latin America, 70% of growers came from the richest 20% of local families (Clapp 1994, 237). Further, in northwestern Mexico relatively wealthy Mexican entrepreneurs contract their production with North American firms, such as Campbell's and Del Monte (Novo 2004, 215). In Mexico too, firms prefer to sign contracts with growers who are 'large scale' or 'medium scale' - with farms of 100-200 ha – primarily to keep their transaction costs down. Apart from access to land, it is ensured that farmers have access to agriculture infrastructure, irrigation water – in other words, have some form of economic solvency (Echanove and Steffen 2005, 171–174), (Gwynne 1999, 221).

In the case of China, agribusiness corporations are of the opinion that unless the investments are made by the contract farmers, they cannot be trusted to honour the contract (Guo and Jolly 2008, 571). In such a context, there is an inherent understanding that small peasant does not have the requisite resources to invest - that he is poor and by

extension - untrustworthy (Guo and Jolly 2008, 571). In another research article it was suggested that participation in CF is influenced by farm sizes, farmer's age, education, exposure to different farm groups etc (Simmons, Winters, and Patrick 2005, 513). That is, there are certain other parameters as well that are required to be fulfilled in order to contract out for the corporations (Barrett et al. 2012, 717). Other parameters include - access to information, extension visits/technical assistance, membership in farmer organisation, etc. (Anim 2011, 5065; Masakure and Henson 2005, 1723). This implies that an illiterate farmer with no connections to outside groups is considered incapable of getting involved with CF schemes. Apart from that, because CF is a new kind of agriculture venture, the agribusiness corporations prefer to deal with young, educated farmers who would be more progressive in their outlook and willing to experiment. Pritchard et al (2011:243) argue that CF scheme of chillies in South India selectively enrolls participants through 'progressive farmer' networks, which organises the rural spaces by generating new geographies of advantage and opportunity. Watts (1994:57) also writes that the idea of a small peasant is a tactic that legitimates direct foreign investment since it touches the 'sensitive' chord of 'doing something' for the 'small' peasant.

What I have discussed above is literature that argues that in fact, agribusiness corporations prefer to work with peasants who have access to certain level of infrastructure and the resources to take credit and so on. In most of the developing countries, farmers who would have access to such resources are in fact middle and rich

peasants and not small/marginal peasants. So the questions that arises are as follows: There are some scholars who argue that CF works for small peasants and there are others who argue that large peasants are preferred for CF operations. Further, as already discussed, there is no clear distinction between what constitutes a smallholder. So, what then is the logic of CF? How does it work on ground? Whom is it really supposed to benefit? In the pretext of promoting smallholder participation in agriculture, whose interests are being promoted? I think, these are some of the gaps that need to be addressed in the context of discussions on CF.

What is missing from small-farmer thesis is an understanding that CF is not contingent on the presence of smallholders. The agribusiness capitalists prefer to work with those kind of peasants who have substantial access to means of production (land, technology etc), who have capacity to take loans to buy expensive agri-inputs, who are willing to take risk of crop failure. What matters then is the ability of the peasant to raise the productivity of his land by increasing the consumption of agri-inputs and by employing cheap .

(2) Implications for Labourers

Scholars have paid little emphasis on relation between capital and labourer on contract farms. The discussion on CF operates as if labourer does not exist. There has been some discussion on differences in wages during harvest times between labourers. The difference is on the basis of gender and whether labourer is local or migrant (Sing, 2002b, 1632; 2003, 10). Erappa (2006) writes that with the flow of migrant labourer into

the state, wages of labourers on contract farms get depressed. Clapp (1988:9) writes that when labourer is required on a contract farm, then the farmers prefer to pay by piece-rate basis rather than a fixed wage. But there is little recent work on this in context of CF. What is missing from the literature is an understanding how the system of agrarian production like CF interact with labourers? What is the relation of contract farmers with the labourers? How does this relationship manifests itself on the ground? I think these are some of the concrete questions that need to be researched on this issue.

(3) Implications for Technological Development

Scholars have discussed the issue of technological development as a static phenomenon. That is, technology is being seen as a 'thing in itself' - which exists in homogenous society. Scholars have acknowledged that CF helps in the introduction of new on-farm technologies and as a consequence the cost of production has increased. However, since the increase in cost of production often gets manifested in the increase in income for the contract farmers, question of access to those technologies for non-contract farmers never arises in either of the articles I reviewed. Another closely linked issue has been near absence of role of the state in introducing technological changes in agriculture. Further, there is hardly any discussion on how the State creates an overall economic-political environment in which CF can be adopted. In other words, existing literature on technological development and creation of overall market friendly environment to enable in CF does not engage with role of State.

Section 2.4 An Alternative Framework

There is little to disagree that Indian Agriculture in the 21st century is getting increasingly incorporated into the corporate capitalism system. And CF⁴ is emerging as a means by which international corporate capital increasingly penetrates Indian countryside. Neither is the penetration of this capital uniform across space or people. In other words, penetration of corporate capital in India via CF has spatial and class implications. I argue that this thinking has to be part of the understanding of CF.

I have now identified presence of important themes [such as role of CF for small farmer development, development of technology, implications for labourers, etc.] in CF literature. I have also critiqued those ideas and at places discussed what kind of issues need to be dealt with within those themes. Not only is the existing literature on CF inadequately uncritical, there are also severe absences in the CF literature. The fundamental absence lies in the way CF has been conceptualised by scholars. Up until now, CF is seen as a thing that exists in isolation - on its own.

One of the central epistemological premises of Marxist theory is the distinction between the level of appearances and the underlying social reality that produces those

⁴ As such CF as an institutional arrangement was first employed by United States multinationals in Central America at the beginning of the 20th century and by the Japanese to secure sugar production in Taiwan from 1885 (Kirsten and Sartorius 2002, 504). By the late 20th century, CF was widespread across Western Europe, the United States and Japan. The fruit and vegetable canning sectors expanded in the United States and Europe and merchants in Europe and North America entered into seed production contracts with growers in Australia, Britain, Canada, France, Holland, Hungary and the United States (Watts, 1994). It is now a common organisational structure in many developed countries (Rehber, 1998). In developing countries, CF was introduced to similarly industrialise agriculture in the light of globalisation of world market (Kirsten and Sartorius 2002, 503).

appearances (Ollman 2003; Sayer 1992; Wright, 1978,12). That is, the empirical phenomena that is immediately observable - like CF, including its various aspects -- can only be explained if we analyse the social reality hidden behind the appearances. It thus becomes important to elaborate the underlying structures of social relations, of the contradictions embedded in those structures, of the ways in which those underlying structures generate the appearances which people encounter in everyday life (Ollman 2003; Sayer 1992; Wright, 1978,12)

Therefore what is needed is an alternative framework that sees CF as a structure of class relationships that are part of a whole - deepening corporate-capitalist class relations in agriculture [society]. This framework must pay attention to the following dimensions:

- (i) Role of Indian Corporate-Capitalist State in creating conditions conducive to promoting CF class-relations
- (ii) Implications of CF class-relations for technology-use, and
- (iii) Implications of CF class-relations on small and marginal peasants and labourers.

Therefore, I think CF has to be reconceptualised in a manner that articulates it [CF] as a state mediated capital accumulation strategy that brings together various fractions of capital. It is a process which has consequences on development of productive forces, concentration and centralisation of capital and small producers and labourers.

Thus, responding to the gaps in the literature and building on the existing literature, I have identified four elements – interconnected building blocks -- that should

form the basis of theorizing CF. I argue that such a dialectical reconceptualisation of CF is required to fully grasp the reality of CF.

First, CF should be understood as a concrete study of complex corporate-capitalism class relation. The primary relations of production in CF are relations of cooperation, competition and conflict between Agro food processing corporations (productive capital), agri-input corporations (mercantile capital), finance capital and contract farmers. These relations of production are instrumental in showing that capital does not always have to compete against capital but infact can also collaborate and work side by side in accordance with the plan which is in 'general interest' of capital. In the case of CF, 'general interest' is about selling of technologies to the farmers. In fact, the extent to which the productive forces can be sold and developed in CF is dialectically related to the social character of its relations of production.

The social relations that constitute the CF are not possible to exist without the support of the state. That is, to understand the relations that constitute CF and the CF-based accumulation, the state, including its class character, needs to be explicitly included in the theoretical framework

The State is an agent of capitalist development. The dominant classes influence its policies. For instance, the state promotes such agrarian policies that are instrumental in encouraging production of high-value commodities, especially horticultural products like fresh fruits, vegetables, cut flowers, aqua-cultural products like prawns and shrimps for the agribusiness corporations. Doing high-value horticulture crops is not easy. To further

this kind of agri-production, the state is also responsible for creating such enabling conditions that promote CF and help in the wider penetration of corporate capital (in the form of - expensive corporate agri-technologies involving seeds, chemicals and irrigation systems.) in countryside. Simultaneously the rural propertied classes also stay happy since CF led new opportunities benefit the contract farmers as well. As such then the role of the State is to work in the general interest of the capitalist class. However, on the other hand, because of the increase in cost of production, agriculture is becoming an unviable venture for the small and marginal peasants. This is coupled with the fact the the state also withdraws significantly from it public expenses related to agriculture. Thus, State has a dominant class bias. In other words, the existing literature under-theorizes the class character of the State. What is required therefore is a historical materialist interpretation of the Indian State based on class, with particular reference to the agency of the state (R. Das 2007, 410).

The third component of the alternative framework is the issue of technology in CF. CF witnesses an excessive use of technology on contract farms - BT Seeds, usage of plant protection chemicals, timely and precise irrigation methods, heavy farm equipments etc are used on contract farms to increase the crop productivity. This is what is referred to as 'technology in itself'. However, technology cannot be seen in isolation of the society within which it operates. It has to be seen within the structure of property relations where

it is used (Das, 2002, 64). The reality is that technology has social⁵ effects. Only those large/middle peasants gain from this technology who have the resources and access to bank credit to buy expensive agri-inputs on a regular basis. In other words, expensive agri-input machineries and implements are outside the economic means of small and marginal peasants. Furtheron, use of these expensive technologies yield more profit to contract farmers and as such the gap between those who do not get involved with CF operations and those who do, keeps widening. Thus, the existing literature on technology in CF under-theorizes class-implications of technology.

The fourth component of the alternative framework deals with implications of relations of corporate capitalism in Agriculture production for labourers and small peasants. The question of labourers in relation to the contract farmer and agribusiness corporations is pertinent. In CF, the farmer interacts with labourers, however, this relationship is mediated by the agribusiness corporations. For instance, it is the agribusiness corporation that indirectly decides how much wages should a labourer make. This has implications for lives of the labourers. On the other hand, the corporate climate in Indian agriculture is making agriculture an increasingly expensive and unviable option for small and marginal peasants.. As a result, the small and marginal peasants are either

⁵ “...The owners and controllers of capital necessarily tend to introduce innovations that decrease the amount of time workers engage in necessary labour, while increasing the amount of time they spend in surplus labour, which produces the surplus value appropriated in the form of profits. There is thus, an inherent tendency in capitalism to introduce machinery with the potential to increase labour productivity... there is a necessary tendency to seek innovations that restructure the labour process so as to lessen the 'pores' in the working day...There is also necessarily a tendency in capitalism for technical innovations to be introduced that compress the turnover time of capital...” (Smith, 1997, 119)

leaving agriculture, selling away their land or leasing it out.

Section 2.5 Conclusion

I began the chapter with a review of how the existing literature conceptualizes CF. Here I identify three important lines of enquiry. I first discuss how CF is being seen as a vehicle for vertically integrating farmer with the agro-processing industries. For instance, the agribusiness corporations assist the farmers by providing them with good quality seeds, plant-protection chemical sprays, herbicides, etc. so that the farmer produces crops with specifications - for instance a medium size-88 Washington Apple should have an approximate dimension of 3.05" and so on. The decision to contract out via vertical integration is a way to avoid market imperfections and to reduce transaction costs by agribusiness corporations to obtain raw products. For this, CF works best for both the farmer as well as the corporation. The second line of enquiry that I have identified deals with the poverty reducing capacity of CF for small farmers. Here I discuss at length about the positive change that many small farmers have experienced since the start of the CF operations in their regions. The literature shows that all small farmers experienced increase in incomes. Access to agri-inputs and ready markets in absence of State's inability to provide an alternative is an important reason why contract farmers benefit from CF projects. In some instances, CF also enabled the women farmers to earn an income which impacted the gender dynamics in their households giving women a much needed say in decision making process. Within this body of work there are a few scholars who argue that in fact there is an unequal relation between an agribusiness corporation

and a smallholder farmer. And that these small farmers are 'controlled' by the Corporation. A third line of enquiry deals with the implication of CF for National Economic Development in (i) Technological Development (ii) Small and Marginal Farmers and Labourers. A few scholars argue that CF is seen as a vehicle to introduce new on-farm technologies making it investment intensive. Use of patented seeds, chemical sprays, intensive irrigation methods, etc. increase the cost of cultivation for the farmer. Further, literature on labourers in CF primarily deals with different kinds of labourers (women, migrant and child) that are required on contract farms. Literature shows that labour requirement has increased in farms where contracted production is carried out. The demand for labourers is seasonal as well as gendered. Evidence in the literature suggests that horticulture schemes also rely on migrant labourers. Further, contract-farmers also require labour supervisors to 'check' labourers on farm to maintain the labour productivity.

In the second section I provide a critique of the of the dominant themes that emerge from the literature - (i) Small Peasant thesis of CF (ii) Critiques and Absences from literature on implications of CF for Labourers and (iii) Critiques and Absences from literature on implications of CF for technological development. First I show evidence from the existing literature that there are a few scholars who show that in fact the beneficiaries of CF in (different countries) are in fact middle/rich peasants who have risk-taking capacity. In fact, for some of the agribusiness corporations, decision to include certain farmers in their contracting arrangements are dependent on the size of their farms,

loan taking capacity, their age, as well as education. So if CF seems to work for both small as well as large peasants - then (i) there should be an error in the way 'small' is being conceptualised by the world bank and other development agencies and (ii) In the pretext of promoting smallholder participation in agriculture, whose interests are actually being promoted? Second, there is a gap in the literature on effects and implications of capital accumulation through CF on labourers in agriculture. In fact, scholars have paid little emphasis on relation between capital and labourers on contract farms. The discussion on CF operates as if labourers do not exist. What is missing from the literature is an understanding how the system of agrarian production like CF interact with labourers? What is the relation of contract farmers with the labourers? How does this relationship manifests itself on the ground? I think these are some of the concrete questions that need to be researched on this issue. Third, scholars have discussed the issue of technological development as a static phenomenon. That is, technology is being seen as a 'thing in itself' - which exists in homogenous society. Question of access to those technologies for non-contract farmers never arose in either of the articles I reviewed. Another closely linked issue has been near absence of role of the state in introducing technological changes in agriculture.

In the third and final section, I provide an alternative framework to understand CF. Up until now, CF is seen as a thing that exists in isolation - on its own. This conceptualisation is fundamentally wrong. CF needs to be seen as a structure of class relationships that are part of a whole - deepening corporate-capitalist class relations in

agriculture [society]. This is indeed the core gap in the literature on CF.

I propose four elements - first, CF should be understood as a concrete study of complex corporate-capitalism class relation. Second, the social relations that constitute the CF are not possible to exist without the support of the state. That is, to understand the relations that constitute CF and the CF-based accumulation, the state, including its class character, needs to be explicitly included in the theoretical framework. Third, technology has to be seen in isolation of the society within which it operates. It has to be seen within the structure of property relations where it is used since technology has social effects(Das, 2002, 64). Finally, the fourth component of the alternative framework deals with implications of relations of corporate capitalism in Agriculture production for labourers and small peasants.

Chapter 3

The ABC of Contract Farming: Understanding the Social Relations of Contract Farming in a spatial context

3.1 Introduction

Contract Farming (henceforward, CF) is a novel theory and practice of agrarian capitalist accumulation. It is novel because some of the rules of capital circulation and accumulation have changed since the 1990s, under neoliberal capitalism. Neoliberalism found its way into India partly through the New Economic Policy in the 1990s, which also has an impact on the rural countryside. 'Agrarian Neoliberalism' (Das 2012) is particularly ruthless as it is actively reshaping the Indian food production pattern and replacing it with production of luxury food items, primarily for the “West” through farming initiatives such as CF.

This chapter is informed by an understanding that corporate control over agrarian production is increasing. The production process involving sowing of seeds, use of crop chemicals, harvesting, post-harvest care, processing, etc. are in the control of a few agribusiness corporations. The objective of this chapter is to critically unpack one such

profit-driven agrarian production system – CF. CF is what it is because of the various relations that constitute it. Mobilizing empirical evidence, including from my fieldwork, I examine the way CF is constituted by three kinds of relations of control - relations among agribusiness input capital corporations, relations among contract farming corporations and contract farmers, and finally, relations among finance capital, productive capital, and contract farmers. By analysing these relations I argue that CF is resulting in increasing corporate control over Indian agriculture.

The chapter is divided into five sections. In the first section, I discuss the economic geography of CF in India. The discussion revolves around the fact that Indian agriculture is increasingly getting export oriented and that horticultural export is an important part of this process. And finally I show that some of horticultural production is in the form of CF production. In the second section, I discuss the spatiality of CF at the National and Regional scale (e.g. its spatially uneven spread). In the third section I discuss the relations of CF production that constitute CF. In the fourth section, I discuss the contradictions that are internal to the relations of CF production that make the CF system of capitalist agrarian production an unsustainable project. This is followed by a conclusion section.

Section 3.2 Economic Geography of Contract Farming in India

Agricultural exports have been on the rise in India. For instance, between 1990-91 and 2011-12, agricultural exports have risen more than tenfold – from \$3.5billion to \$37.1billion (Assocham India (b) 2013, 2). Table 3.1 shows the annual percentage growth rate in horticulture exports since 1990s.

Table 3.1: Horticulture Exports from 1990-91 to 2000-11

Product	1990-91	2010-11 (in\$billion)	Annual percentage growth rate* ⁶
Agriculture and allied	3.5	24.4	29.9
Fruits etc	0.12	1.39	52.9
Processed foods	0.11	0.83	32.7

Source: (Assocham India (b) 2013 pp4)

Over the 20 year timeline, export of fruits have registered approximately 53 percent annual growth rate followed by export of processed foods. For instance, India is the major producer of dried & preserved vegetables like onions, cucumbers, mushrooms, gherkins, green peppers, dried asparagus, dehydrated garlic powder, potatoes. Table 3.2 below shows the export trend of dried and preserved vegetables from India to the top three export destinations.

⁶ Formula for Annual Percentage Growth Rate=: $\frac{[(\text{Value present}-\text{Value past})/\text{Value Past}]\times 100}{N(20 \text{ years})}$

Table 3.2 Export of Dried and Preserved Vegetables: 2004-2007

	2004-2005	2006-2007
Dried and Preserved Vegetables	Quantity (in Metric Tonnes)	Quantity (in Metric Tonnes)
USA	13980.09	25586.72
France	6410.52	16150
Russia	5804.92	13150.39

Source: (APEDA 2006)

The export of dried and preserved vegetables to the USA has an average annual growth percentage rate of 28 percent $\{[(\text{New value}-\text{Original Value})/\text{Original Value}]/\text{NYears}\times 100\}$. Whereas for Russia, the average annual growth percentage rate has been 42 percent.

The Government of India has identified floriculture as a sunrise industry and accorded it 100% export oriented status. Owing to steady increase in demand of flowers, floriculture has become one of the important export trades in Agriculture (APEDA, 2004-2005). Hence commercial floriculture has emerged as hi-tech activity industry blossoming under controlled climatic conditions of greenhouses. The liberalization of industrial and trade policies paved the way for development of export-oriented production of cut flowers. Commercial floriculture has higher potential per unit area than most of the field crops and is therefore a lucrative business. Indian floriculture industry has been shifting from traditional flowers to cut flowers for export purposes (APEDA, 2004-2005). Floriculture products mainly consist of cut flowers, pot plants, cut foliage, seed bulbs, tubers, rooted cuttings and dried flowers or leaves. The important floricultural crops in the international cut flower trade are rose, carnation, chrysanthemum, gerbera,

gladiolus, orchids, tulip, lilies, etc.

Table 3.3 - Export of Floriculture (2004-2007)

	2004-2005	2006-2007
Floriculture (in metric tonnes)	27769.06	42016.7
USA	7897	9652.08
UK	3379.26	4297.67
Netherland	2526.32	4334.18

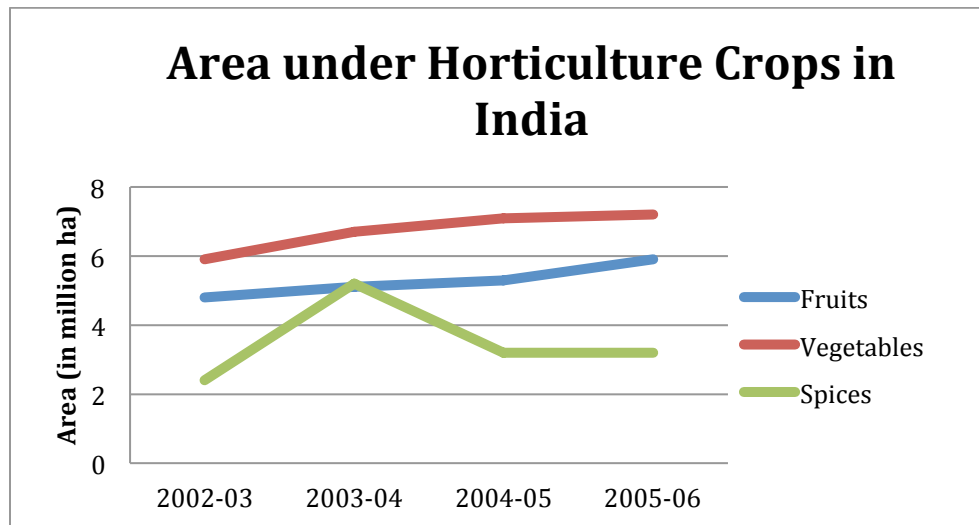
Source: (APEDA 2006)

As per the Table 3.3, the average annual growth rate of flower export is 17 percent. During 2006-2007, USA has been the largest importer of flowers followed by the Netherlands and the UK. This export data simply highlights the export trend of horticulture crops in India, and not the export of contract farming production necessarily. There is little data that directly shows that all that is produced under CF is in fact export oriented.

Furthermore, there has been an overall increasing trend in India to produce horticulture crops in general and in the production of CF crops in particular. For instance, the area under horticulture crops has increased from 16.6 million ha in 2001-02 to 23.24 million ha in 2011-12 (Assocham India 2013, 6). Figure 3.1 below shows the increase in area of horticulture crops such as fruits, vegetables and spices in India since 2002-2003. The figure below shows that area under fruit cultivation has grown from 4.8 million ha in

2002-2003 to 5.9 million ha (FICCI overview 2009, 6). Similarly, area under vegetables has increased from 5.9 to 7.2 mill ha in the same time span.

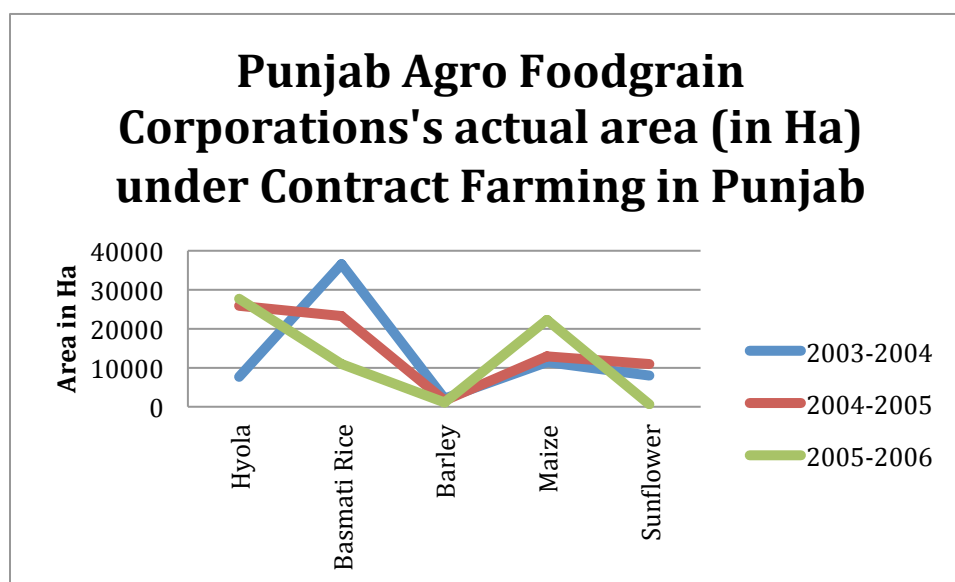
Figure 3.1- Area under Horticulture Crops in India



Source: (Sathe 2009; FICCI overview 2009)

The increase in area under horticulture crops is an indication of increasing demand. Further, data on production of horticulture crops shows an increase in production from 145.8 million tonnes to 257.28 million tonnes since 2002-2003. That is, productivity has increased from 8.8 to 11.1 tonnes per hectare (Assocham India 2013, 6). Figure 3.2 below shows the actual increase in area (in hectares) grown under CF in Punjab through Punjab Agro-Foodgrain Corporation (PAFC).

Figure 3.2: Punjab Agro Foodgrain Corporation's (PAFC) actual area (in ha) under Contract Farming in Punjab

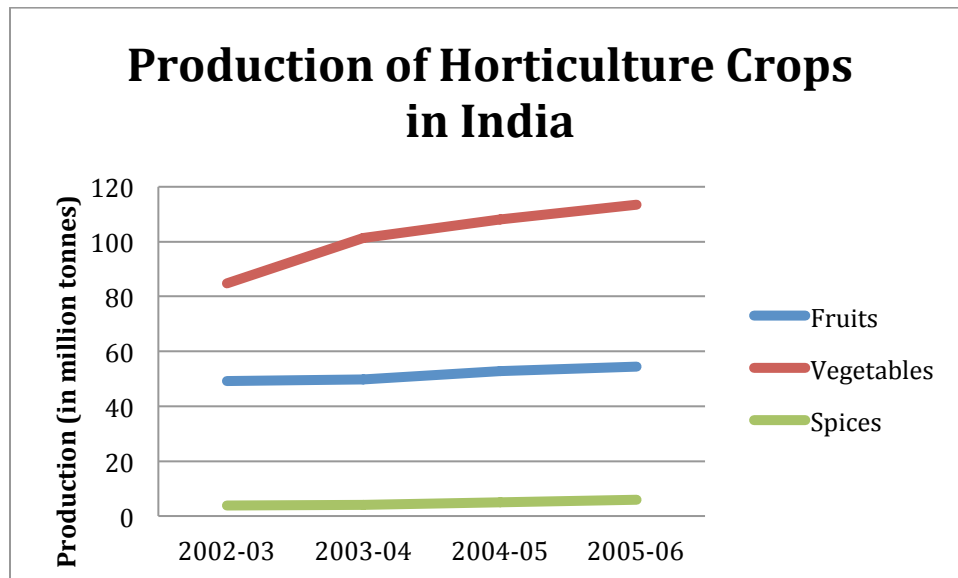


Source: (Pattanaik et al. 2008; 21-26)

NOTE: Doing CF with PAFC is one of the options that farmers have. In such cases, a farmer contracts with PAFC - sells his produce to them and later PAFC sells/exports to other players in the market. It is easier to access data on CF through PAFC since it is a subsidiary of Punjab Agro Industries Corporation which is a premier organisation of Punjab Government. PAFC maintains data on CF that directly relates to them.

Figure 3.2 shows that between 2003-2004 and 2005-2006, area under hyola and maize increased substantially. The other crops, however, have seen a declining trend. The next figure 3.3 shows the increase in production of horticulture crops in million tonnes since 2002-2003.

Figure 3.3: Production of Horticulture Crops in India



Source: (Sathe, A. 2009, 6)

There has been a perceptible increase in production of vegetables from 82million tonnes to 115million tonnes. Production of fruits have increased marginally from 50 million tonnes to 55 million tonnes, followed by production of spices. Thus, there has been a robust growth observed in area (40.1 percent) and production (76.5 percent) during 2001-02 to 2011-12 (Assocham India 2013, 6). I also argue that since CF production is a form of horticulture production, there has also been an increasing popularity of CF led production.

CF specific data that shows a trend or any pattern is difficult to find because of the experimental stage of CF production in India. However, what can be argued here is that because CF production primarily involves the cultivation of perishable horticulture

crops, an increase in area and production under horticulture in general is indirectly related to an increase in area and production under CF in particular.

Section 3.3 Spatiality of Contract Farming

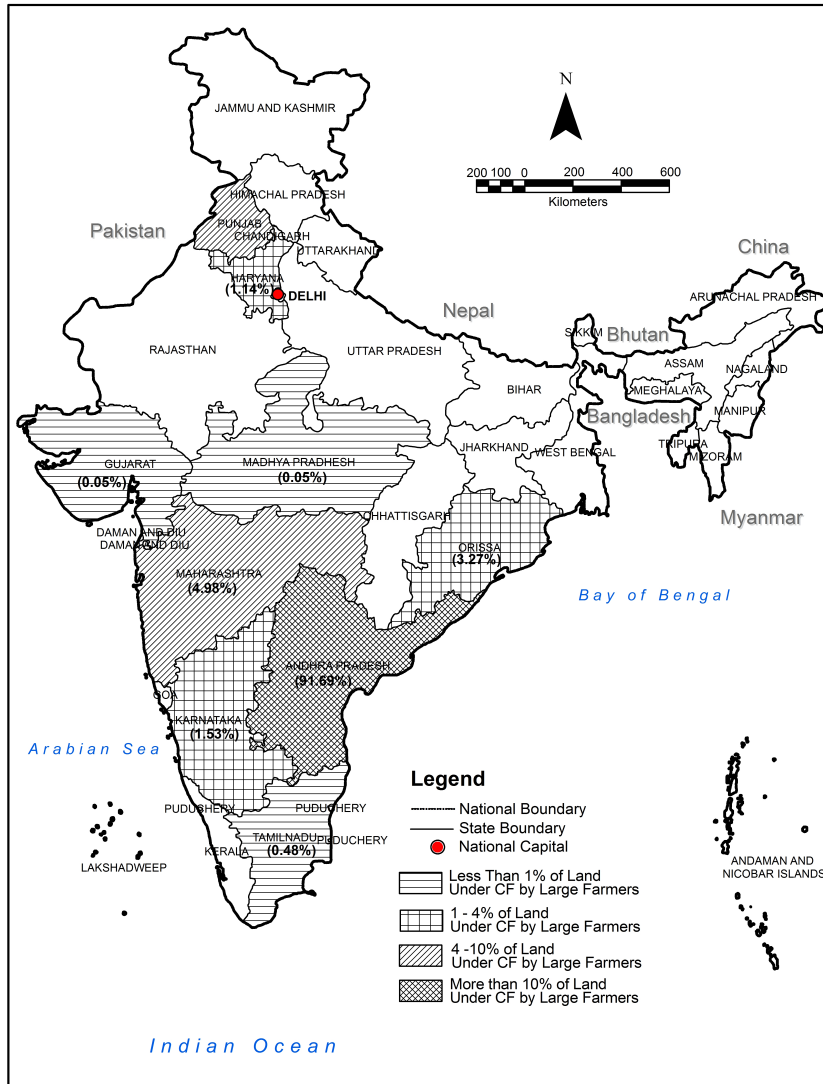
Contract-farming initiatives by private sector are evident in five major Indian states: Andhra Pradesh, Maharashtra, Punjab, Odisha and Karnataka. That is, CF is geographically concentrated in a few Indian states. Map 3.1 shows Andhra Pradesh with over 90% of land under CF by large farmers, followed by Punjab and Maharashtra. The agribusiness advocates argue that this concentration is primarily related to the 'right' agro-climatic conditions for the required crop. The right conditions include: better irrigation facilities, natural soil productivity, enterprising farmers, etc. One of my agribusiness interviewees said:-

“...We are here in Punjab because soil quality, weather conditions and attitude of farmers suit our crop requirements” (Interviewees, Managing Director, McKain Foods (2010); Agri-Division Head, Satnam Agrotech (2009); and Agri-Marketing Head, Pepsi Foods (2007).

Apart from the specific crop requirements such as abundant rain and sunshine, which limit the scope of crop production to specific agro-climatic parts of the country, my respondents also discussed the need to have the 'right' attitude of farmers along with the requirements of the physical environment. The bias of the agribusiness corporations is apparent. First, it is assumed that not all farmers have the 'right' attitude. Second, what

constitutes the 'right attitude'? I will delve into this question in next few paragraphs. First,

Map 3.1: GEOGRAPHICAL CONCENTRATION OF CONTRACT FARMING IN INDIA



SOURCE: Compiled from – (FICCI Internal Document 2007; Singh and Gautam 2007; Parliamentary Question-Rajya Sabha Unstarred Question no. 1806 2007; Rai 2005)

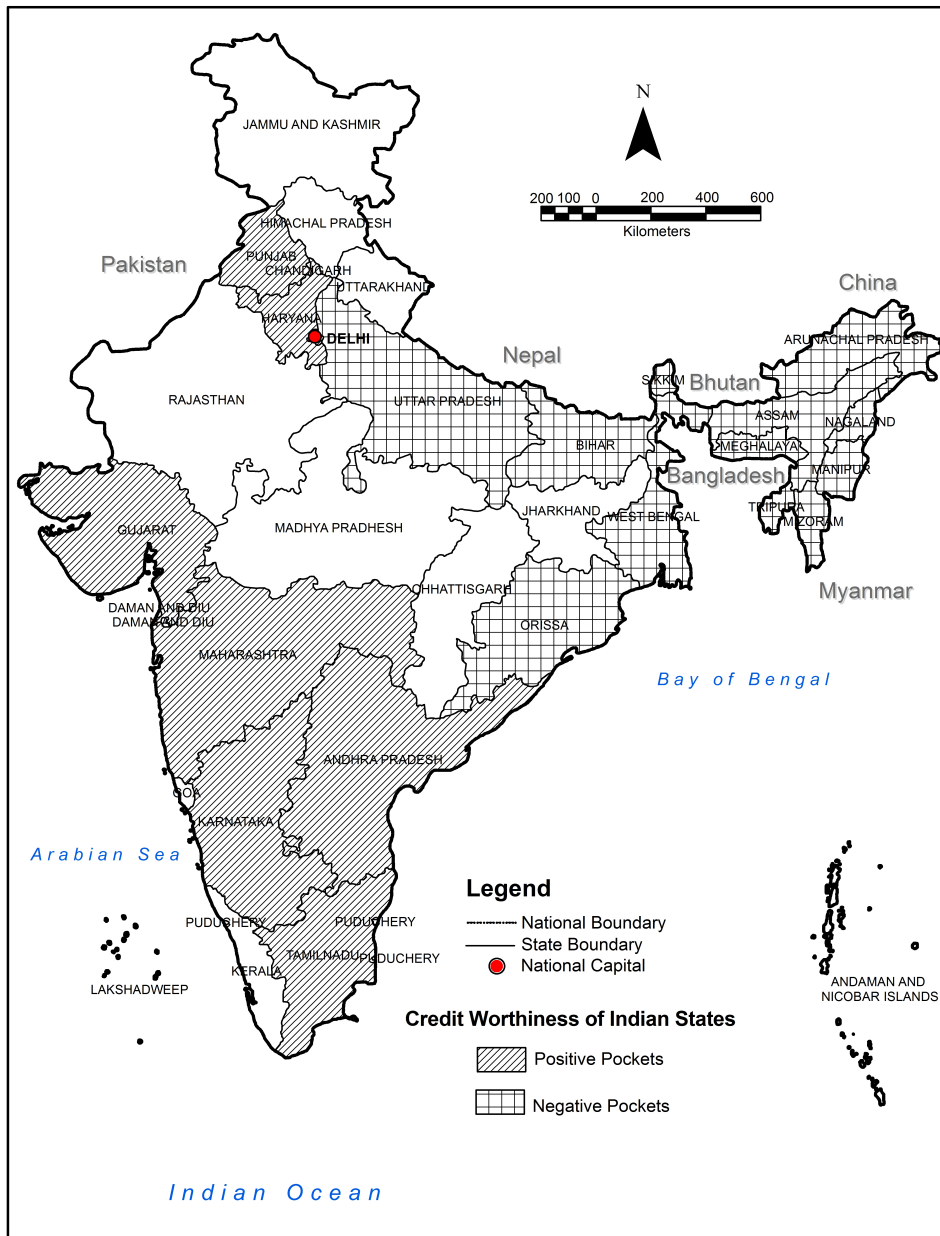
Map 3.1 highlights two aspects of CF. First, the spread of CF is spatially uneven. Second, the spread of CF production is among large peasants who have access to more than 20 acres of land. This point speaks to the point made previously about 'right attitude'. It appears from the statement of my interviewees that large peasants who have access to resources such as land and labourers, are in fact, an important criteria for hiring farmers for contract production. The assumption behind this is that a well-to-do-farmer will not cheat the contracting corporations.

Another view that expressed similar sentiments was presented by Executive Vice-President of Kotak Mahindra Bank. Here he stressed the role of credit rating (of farmers).

“...We have identified two aspects of lending - (a) we prefer to lend to those corporations/people who are growing 'better' crops that will ensure 'better' results, and (b) we prefer to lend to those who are in a habit of taking loans and repaying back...” (Interviewee, Executive Vice President and Head. Agri Business Group, Kotak Mahindra Bank, December 2010)

In fact, based on these criteria, the Kotak Mahindra Bank has divided India into 'Positive pockets' and 'Negative Pockets' of credit worthiness. Positive areas are being identified as those provinces , where the repayment of credit is high. Map 3.2 shows the geography of credit worthiness.

MAP 3.2: GEOGRAPHY OF CREDIT WORTHINESS



Source: (Interviewee, Executive Vice President and Head Agri-Business Group, Om Kotak Mahindra Bank 2010)

The negative pockets have been assigned to the northern, north-east and eastern states of India that have a history of bad economy. Some of these states are also part of the BIMAROU - acronym for five Indian states: Bihar, Madhya Pradesh, Rajasthan, Odisha and Uttar Pradesh. Some of these states are also part of the Indian State identified Red Corridor (2007). Red corridor is a region in eastern India that experiences considerable Naxal-Maoist insurgency including parts of Andhra Pradesh, Bihar, Chattisgarh, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh and West Bengal. Considering the fact that the negative pockets are regions of extreme poverty, political unrest, etc., the next quote stresses the need to have a political environment that is conducive to promoting contract farming.

"...We would like to invest in West Bengal. But the climate is not ready for us. Labourer is always ready to strike, the government also has to cooperate more..." (Interviewee, Executive Vice President and Head Agri Business Group, Kotak Mahindra Bank, December 2010)

Interestingly, West Bengal is seen as a 'negative' region because of the legacy of the government to be anti-business and pro-labourer communist left and hence not contributing towards a proper business environment for agribusinesses to flourish (Interviewee, Executive Vice President and Head. Agri Business Group, Kotak Mahindra Bank, December 2010). When one sees the regional disparities in credit worthiness along with the area under contract farming, then CF tends to be popular in the positive pockets.

The idea of the division of the country on the basis of credit worthiness also assumes that certain places/people are unfit for credit provisions. For instance, the VP and Advisor at Bharti-Wal Mart confessed:

“...these are expensive seeds. We cannot give them to any farmer. We have to see that farmer growing this seed is honest too. So we prefer to contract with farmers who will not act petty, who are cultured, who are rich. We prefer to work with large-scale farmers...” (2009)

In other words, not only is credit given to those farmers who need less than others, it is also assumed simultaneously, that those who are not rich, are also dishonest and always cheat. Banks prefer to give loans to farmers who have enough surplus capital and have a good track record of repaying loans. That is, they have no reason (they assume that poor people steal because of poverty) to steal from the contracting corporation.

It should also be noted that the 'positive' pockets of credit worthiness are also those areas that already have higher levels of Infrastructure Development Index and Commercialisation Index. Using Map No. 3.3, I show some of these indicators⁷. The data for this map is shown in Table 3.4. For instance, the first inset map shows the State Competitive Index. Punjab ranks first, followed by Kerala and Haryana. This index

⁷ The various indicators are Infrastructure (Financial, Physical, Communication, Administration, Human Capacity, Innovation); Demand Conditions (Income distribution, basic demographics); Competition (Intensity and diversity of firms, business incentives) and Institutional Infrastructure (supplier sophistication, institutional support) (Singh 2005, 278–279); (Institute for Competitiveness 2011, 44–45)

indicates the overall status of 'desirability' of the Indian states by the corporations to pursue their business. That is, the availability of labourers, infrastructure, skilled labourers, roads, electricity, water etc are in good condition to pursue further capitalist ventures in states with higher ranking. The second index on the map is that of Infrastructure Development. Punjab, followed by Kerala, Tamil Nadu and Uttar Pradesh rank high on the Infrastructure Development Index. For the Agriculture Commercialisation index, Punjab ranks first, followed by Tamil Nadu, Haryana and Gujarat. I juxtaposed this data along with data on the number of Foreign Direct Investment (FDI) approvals, then Maharashtra, Karnataka and Tamil Nadu are the top three states attracting maximum foreign direct investment proposals.

The information as displayed on Map 3.3 (below) reiterates how there is a strong correlation between the various indicators.

Table 3.4: State-Wise ranking of 'Development' related Indicators in India.

States	Competitive Index * (2005)	Infrastructure Development Index* (2004)	Agriculture Commercialisation Index (1997)**	Number of FDI ventures*** (2004)
Punjab	1	1	1	14
Kerala	2	2	8	10
Haryan	3	4	3	8
Gujara	4	8	4	6
Karnataka	5	7	12	3
Tamilnadu	6	3	2	4
Maharashtra	7	6	7	1
Andhra Pradesh	8	10	5	5

Odisha	9	12	14	15
Assam	10	9	N.A.	NA
Rajasthan	11	14	11	11
Madhya Pradesh	12	15	13	13
West Bengal	13	11	9	9
Uttar Pradesh	14	5	6	7

SOURCE: * Modified from Lakhwinder Singh (Fall 2005) Deceleration of Industrial Growth and Rural Industrialisation Strategy for Indian Punjab, *Journal of Punjab Studies*, Volume 12, No. 2.; NABARD (2004) Infrastructure for Agriculture and Rural Development – An impact assessment of investments in rural roads and bridges under RIDF

** K.J.S. Satyasai and K.V. Vishwanathan (1997), Commercialisation and Diversification of Indian Agriculture, Occasional Paper no. 5, *National Bank for Agriculture and Rural Development*, pp: 28

***Adapted from - Rao and Murthy (2006); Towards Understanding the State-Wise Distribution of Foreign Direct Investments in the Post-Liberalisation Period, ISID Working Paper No: 2006/01, (pp9)

Note for data on FDI Approvals: If one goes by the official figures for the period upto August 2004, Delhi will be receiving the second largest amount (12 per cent of the total) for foreign direct investment preceded by the top ranking Maharashtra. It is obvious that most of these projects will not be located in Delhi. Delhi could potentially be hosting the head offices of the corporations - but the operations could extend much beyond the state of Delhi (Rao and Murthy, 2006, 8)

In other words, I argue that there is in fact a strong relation between the prior development level of a state and the implementation of CF projects in those states. That is those states where the competitive index is higher are also the same states where infrastructure development as well as the level of commercialisation is also high. So for instance, Punjab ranks first in all three indicators. Data from Map 3.1 shows that Punjab is also amongst the top 3 states with a higher percentage of large scale farmers undertaking CF projects and so on. The data on FDI approvals reveals an interesting fact. When FDI is approved in a state, this implies that the corporation intending to set up its

project has a 'market friendly state' that is creating an environment that is conducive to development of corporate capitalism.

MAP 3.3: INDICES OF 'DESIRABILITY' BY CORPORATE CAPITAL

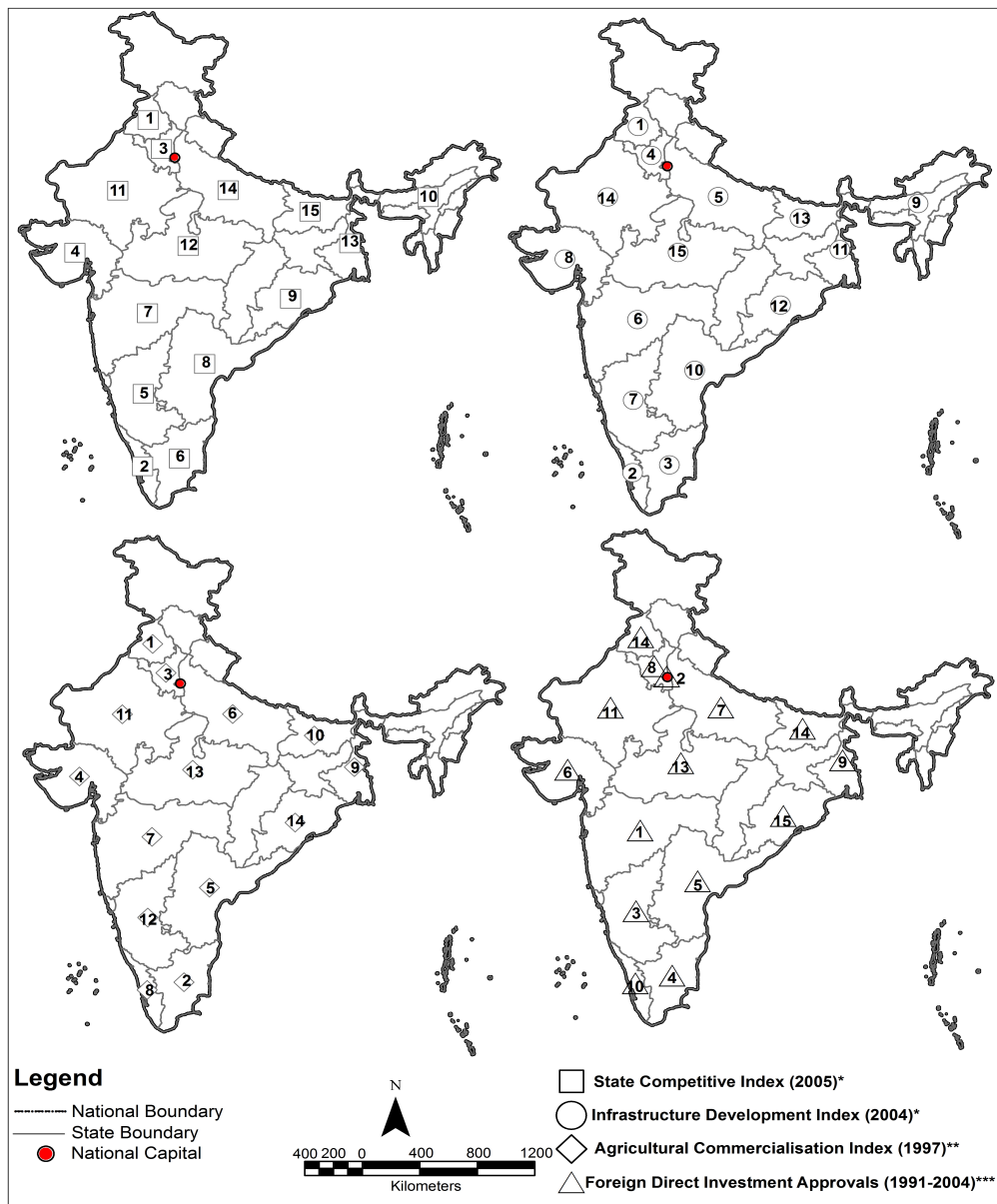


Table 3.4 also shows that Maharashtra, Karnataka and TamilNadu are amongst the top 3 states with FDI approval. These are also the states with more area⁸ under CF than other states. It can be argued that CF nature of agriculture is reflecting already existing unevenness in development patterns of India and will over time reinforce that unevenness.

The implication of geographical variation can be seen more clearly when we look at the case of one state, the Punjab. Map 3.4 shows the variation at the sub-state level. Jalandhar, Muktsar and Bhatinda are three districts which have the highest percentage of farmers with more than 10 acres of operational land who are involved with CF. Jalandhar falls under the fertile doaba⁹ region of Punjab.

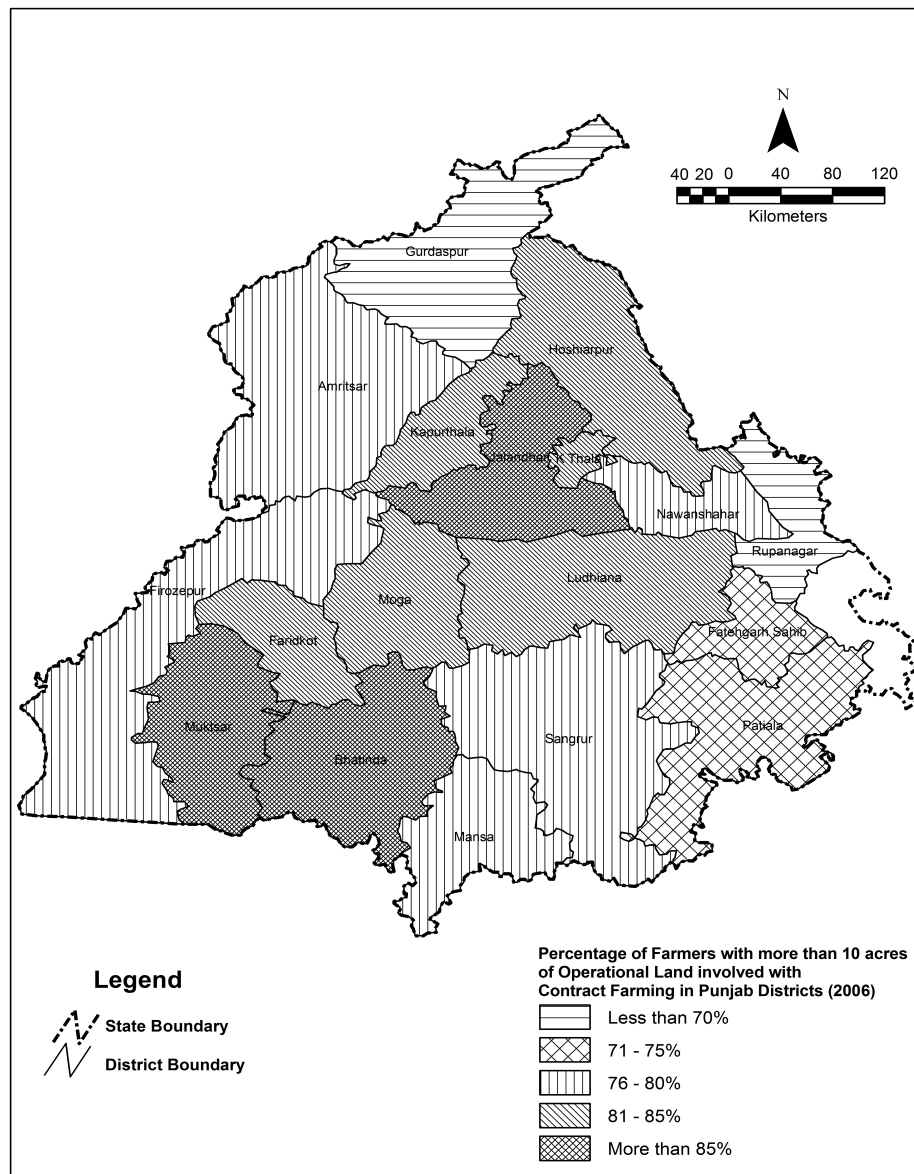
⁸ Area under CF between 2003-2007 - Maharashtra - 134800hectares; Andhra Pradesh - 860839 hectares; Karnataka - 20350 hectares (Compiled from – (i) Contract Farming Status, Department of Agriculture Marketing, Government of India 2005; (ii) Lallan Rai, Contract Farming Status in different States, Ministry of Agriculture, 2005 (unpublished); (iii) Contract Farming in India (unpublished internal document, FICCI, 2007); (iv) Sukhpal Singh, Agribusiness in South Asia: A Fact Sheet, Centre for management in Agribusiness, 2007 ; (v) Compiled from the statistics released by Rajya Sabha Unstarred Question No. 1806, dated 29.08.2007, accessed via Indiatats.com as on 24 September 2010.)

⁹ There are 4 regions in Punjab – *Malwa, Majha, Doaba and Powadh*. But it is interesting to observe that when one talks about Punjab – it is always as if Punjab is one contiguous area – the geographical distinctions between malwa/majha and doaba are almost always obfuscated. Malwa is a south-eastern region of Punjab and parts of Haryana between the Sutlej and Yamuna rivers. It makes up the majority of the Punjab region, consisting of 11 districts or parts of districts. Majha is a region of the Punjab that is north of River Sutlej. It is 'the central plains' of the Punjab. Powadh (or Puadh or Powadha) is a region of Punjab and parts of Haryana between the Sutlej and Ghaggar rivers. Doaba is the region of Indian Punjab surrounded by the rivers Beas and Sutlej. The name "Doaba" or Doab literally translates to "land of two rivers". It is one of the most fertile regions of the world, and was the centre of the Green Revolution in India.

Punjab has good irrigation infrastructure, landlords with large holdings, and rich capitalists farmers, many of whom are involved in CF. This partly explains the concentration of contract farmers in the district. Bhatinda and Mukhtsar (shown on map 3.4) fall under the Malwa belt of Punjab. Malwa belt is also known as the 'cotton belt' of the region. In fact, Bt cotton made an official entry into Punjab in 2005 and by the end of the year 2007, in the four cotton-producing districts (Bathinda, Muktsar, Faridkot and Ferozepur), Bt cotton coverage has been almost 100% (Goswami, 2007). In the two districts Muktsar and Bhatinda, cotton is produced on a CF basis to be sold to the Punjab Agro-Foodgrain Corporation - PAFC.

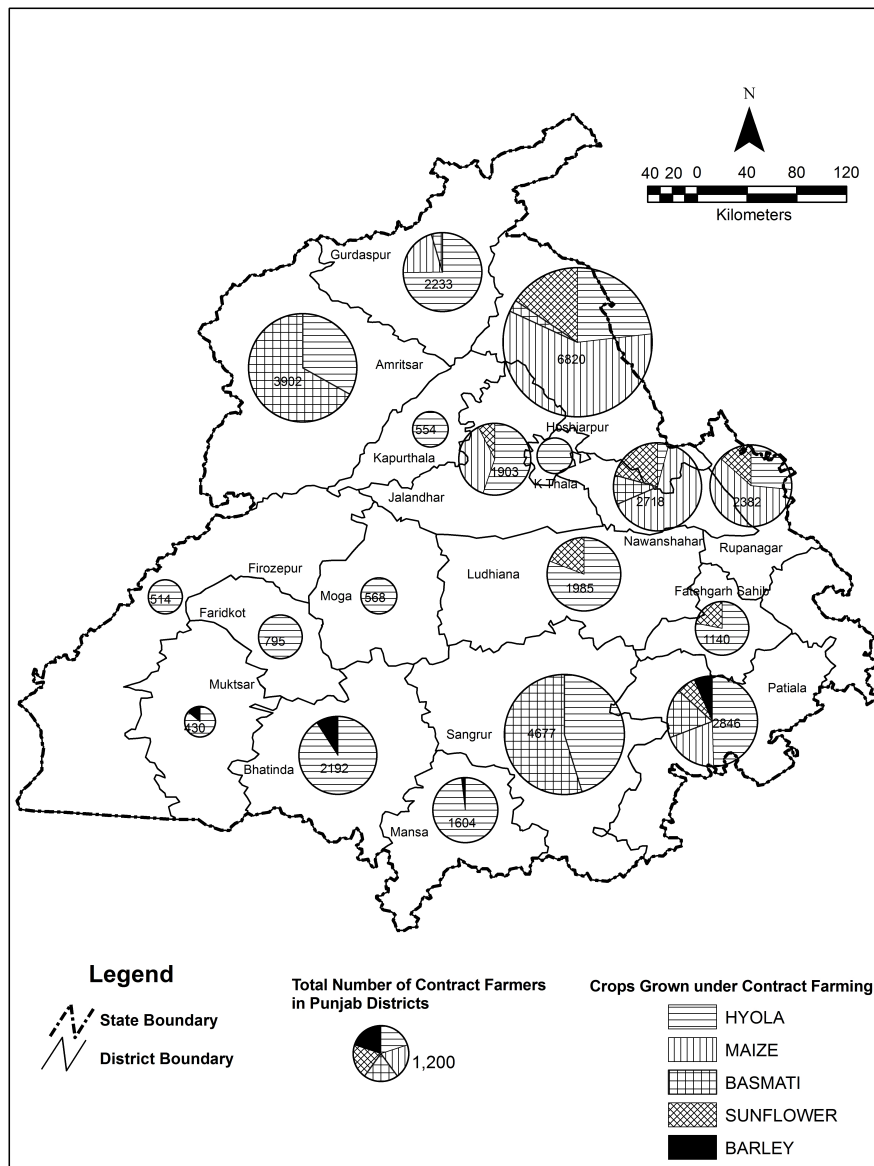
Besides cotton, crops that are increasingly grown through CF in Punjab are high value horticulture crops meant for exports – either as direct fresh foods or as processed food items meant for niche consumers. Potato varieties for making chips, fries, flakes are most widespread in the areas where I conducted interviews, followed by baby corn, French beans etc. Map no 3.5 lays out the details of all the crops that are grown under CF through the "state-agency" PAFC. For instance, hyola (hybrid rapeseed) for production of mustard oil has maximum coverage in the province, followed by sunflower (used for making beer, cookies, oil) and basmati rice (for direct export) is being grown in Punjab.

MAP 3.4: PERCENTAGE OF FARMERS WITH MORE THAN 10 ACRES OF OPERATIONAL LAND INVOLVED WITH CONTRACT FARMING IN PUNJAB DISTRICTS (2006)



Source: Modified from as published in CRID (2008) report on Contract Farming System in Punjab: An appraisal, pp 13, 39-40

MAP 3.5: CROPS GROWN UNDER CONTRACT-FARMING IN PUNJAB



Source: Modified from as published in CRID (2008) report on Contract Farming System in Punjab: An appraisal, pp 13. It should be noted that the original source of this data is Punjab Agro Foodgrain Corporation (PAFC) Chandigarh.

Section 3.4 Social Relations of Contract Farming

Now that a brief background has been provided on the status of CF in India and Punjab, I will provide a detailed understanding of the relations that constitute CF. Here, I examine the relationships of control of agriculture production that are also relationships of cooperation between agro food processing corporations (productive capital), agri-input corporations (mercantile capital), finance capital and contract farmers. These internally related elements have causal powers and liabilities when combined. Through a careful empirical analysis of these relations, I argue that CF is leading towards widening capitalist class relations in agriculture in rural India.

Relations among Productive Capital, Mercantile Capital, Finance Capital and the Contract Farmer

Here I argue that contract farming brings together the otherwise independent forms of capital (mercantile, productive and finance) into one relation. The way an agro-processing corporation (productive capital which uses raw material from agriculture) interacts with contract farmer is mediated by agri-input corporations (mercantile capital). Below, I have identify 3 key aspects of CF that are a result of the relations that constitute them.

1. Contract Farming is a way to increase productive consumption of technologies produced by agri-input corporations.

The primary aim of an agribusiness input corporations' association with contract farming is to become part of the supply chain that links them to their potential consumers.

Their aim is to sell their goods (technology) - seeds, chemical sprays, tractors etc.to the end user – a contract farmer in this case. It is to the advantage of the agri-input corporation to get involved with CF operations through food processing corporations so that not only the processing corporation gets its desired production, but the agri-input corporation also finds a market and is able to sell their supplies. In other words, the contract farmer becomes both a buyer and a seller of commodities. And s/he becomes a buyer primarily because the contracting corporation mediates his relation as a consumer with the seller of seeds/chemicals, etc. In an interview with a representative of Syngenta seeds:-

“...At Syngenta, we prepare seeds as per the requirement of the contract-farming corporations. If a corporation wants a crop that is resistant to a particular virus and can be grown in specific kind of climate, we deliver. As such CF is not our 'main' focus. Our main objective, is to make use of as many channels as possible (CF is one of them) to create brand recognition for our products and sell hybrid seeds to farmer that can guarantee profit to farmers and others in the value chain...at times we create our own products – such as sweet corn, and then find ways to bring it in the market. Seedless watermelon is another such innovation...”

(Interviewee, Vice-President and Business Head Vegetables at Syngenta Seeds)

The quote above shows that getting involved with CF has not been the main goal of input corporations such as Syngenta, which invest heavily in technology. A corporation such as Syngenta makes its profit by *selling products* to CF farmers, just as a CF corporation

makes a profit by *buying products* from these farmers, and not by getting involved with actual agrarian (capitalist) production. CF becomes a way for them to 'directly interact' with their potential consumers. Plate 3.1-3.3 shows pamphlets from agri-input corporations like Bayer Crop Sciences and Tata Chemicals to sell particular plant protection products to Punjabi farmers.

Plate 3.1 and 3.2 - Publicity pamphlet of Bayer for farmers in Punjab.
The pamphlet is written in local punjabi language.



Plate 3.3 Publicity Pamphlet from Tata Chemicals for farmers in Punjab. Pamphlet is written in local Punjabi language.

In another engaging interview with the Manager at Dupont Crop Protection, I was told -

“...As such, contract-farming does not form a 'big' part of chemical based corporations such as ours' in revenue generation. However, we do work with food chain corporations like Bharti, Pepsico, Mckain who have specific CF objectives. To grow 'chip' quality potato and 'fries' variety potato, they require specific kind of plant protection schedule. This is where we (DuPont) come in. We become part of their supply chain so that we can assist their contract farmers...” (Interviewee, National Market Development Manager, Dupont Crop Protection, India, 2010)

The above quote substantiates the fact that the business of food production is increasingly being corporatised. For contracting corporations CF is not just a way to control the point of production but it also represents a massive concentration of economic power. The logic of CF then necessarily implies that there is a system of captive marketing at every stage which potentially implies an impending monopolistic stage of capitalism operating in the agricultural sector. One of my respondents who at the time of the interview was the Vice-President and Advisor to the joint venture of Bharti and Wal-Mart in Retail Sector said -

“... It is my need that you grow tomatoes that are 150 gms each, round, red in colour, specific solid content, etc. – and I want 500 kilos of those...and by getting into the contract, you have taken the responsibility that you will make them grow that way...which necessarily implies that you get into these cultivation practices. So here is the role of 'package of practice'. We advise the farmer about seed

variety, what pesticides to use, nutrient management, etc. to suit our requirements. (Interviewee, Bharti Wal-Mart 2009)

The 'suggested' package of practices by extension agents of contracting corporations is a way to make farmers buy specific products. The market advocates call it - 'brand recognition' - quite literally, help farmers recognise brands. The following interview extract explains the concept of brand-recognition:-

“...if we do not get involved with CF, then how will we directly interact with farmers? CF helps in creating a brand recognition amidst the farmers...We also home deliver the required products so as to ensure that farmer will no longer have to run everywhere in search of right products to protect his plants and will not have to deal with 'other dealers' who can confuse them...” (National Market Development Manager, Dupont Crop Protection, India, 2010)

In the same interview, an interesting example of brand recognition was narrated to me. The quantity of potato sourced under CF rose from 2,920 tonnes in 2002 to 57,849 tonnes in 2006. However, despite such growth, potato productivity was threatened by an incidence of late blight, a crop-destroying disease caused by a water mold that attacks the stem, leaves and tubers. To counter this threat, DuPont Crop Protection (DCP) joined forces with the Simla-based Central Potato Research Institute (CPRI) and ICICI Lombard General Insurance Corporation to offer crop protection solutions to potato farmers in Karnataka and Maharashtra:-

"...we provided services and solutions including powerful chemical (Curzate M8) and locally systemic fungicide that stops late blight post-infection and inhibits sporulation and spore viability...Now when Pepsi goes out for CF, they suggest this product to the farmer. Our brand gets recognition like this. Once farmer becomes aware of the product which gets delivered at their door step, they stop looking around..." (Interviewee, National Market Development Manager, DuPont Crop Protection, DuPont, 2010)

The quote above substantiates how contract farming as a system of agrarian production has inherent in it a system of ensuring that chemical inputs of corporations are also sold to the farmer. Closely linked to the idea of captive marketing is the idea of capturing consumers by way of extending extension services in the field. That is, keeping a check on the crop, its health, its requirements etc - are increasingly done by private corporations whereas earlier the State used to be responsible for this. In an interview with the Rural Development Director of FICCI, an industry institution body that works on behalf of the industry and lobbies for them with the State, my interviewee said :

"... The corporations now focus on extension services. Almost 40% of the extension service is now being provided by private players. This would also mean that the corporations might be 'influencing' the farmers to buy their products..." (Interviewee, Joint Director, Head Agriculture Water and Rural Development, FICCI, 2009)

Similar sentiments were expressed by the Vice-President and Business Head Vegetables at *Syngenta* Seeds -

“...We are not just selling seeds, we are also providing after sales service. We provide extension services as well. We tell the farmer about how to raise the young plant, provide them with irrigation schedule, we provide guidance and send experts to show farmers how to grow crops and so on...” (Interviewee, *Syngenta* Seeds, 2010)

Thus, CF creates a situation, where the contracting corporation gets the required commodity (as a raw material for the industry) from the farmer, the input corporation is able to sell its 'specialised' technology to the farmer, and the farmer gets a ready-made (pre-existing) market for his/her produce. CF enables a situation whereby the potential agri-input corporations form a clique where they create conditions so that only their products are sold to contract farmers. It is important to realise that CF in India is still at a nascent stage of vertical development. Most growers have access to several integrating firms, but over time the number of firms will be reduced. once the competition has died out completely, the farmers will eventually face a monopoly situation with no price increase and find themselves in financial crisis. Potentially, this could also lead to a situation where once the contracting firms in a region become fewer, the power relationships between the farmers and the firms become more unequal.

2. Contract Farming enables the agri-input corporations to access credit meant primarily for farmers.

Access to credit by private banks for undertaking CF operations has facilitated the spread of CF in India. In India, private banks are hesitant to extend loans to farmers because of inherent risk involved with agriculture, such as – weather unpredictability, pest infestations and so on. However, the Reserve Bank of India (RBI) regulates 40% of its lending to different sectors (Interviewee, HDFC Bank, 2010) and approximately 18% goes to primary activities such as farming, fishing, poultry etc. As more private banks are becoming part of the banking sector, they also need to comply with agriculture lending as stipulated by the RBI (Interviewee, HDFC Bank, 2010). Failure to do so leads to a penalty, which no bank wants to pay (Interviewee, Kotak Mahindra Bank, 2010). As a result, the private banks are finding (indirect) ways to invest in the agriculture sector. This is being done to avoid the uncertainties associated with agriculture, as outlined above.

The finance extended by the private banks for CF is called corporate linked agri-finance. Generally the loans are given for a crop cycle with one or two months of time for the farmer to harvest and sell his/her produce. In most of the cases the corporate extending the extension activities becomes the managing agent for the crop loans. Many times, the loan is disbursed not only in cash but also in the form of agri-products. This means that instead of contract farmers receiving loan money from the bank directly, the banks instead give the money directly to the agri-input corporation – for seeds or

chemicals. So the contract farmers receive only the seeds, chemicals etc. Private banks like ICICI Bank, UTI Bank, IDBI Bank, Om Kotak Mahindra, etc. are providing finance for CF (Interviewee, Tata Capital, 2010). CF projects financed have shown productivity improvements ranging from 5 -15% (FICCI Internal Document, 2007).

Access to credit is crucial for CF to happen, otherwise, farmers are unable and also reluctant to buy expensive hybrid seeds, plant protection schedule, etc. It is in this context that access to credit by private corporations and banks, plays a crucial role in making CF a reality. An interviewee added to this -

“...Contract Farming works for private banks. We get to deal with like-minds. We deal with the corporations like Pepsi, McCain etc. and not stray farmers. We cannot run after individual farmers. But we are aware of Pepsi's balance sheet and we know that money will come back to us...” (Interviewee, Executive Vice President and Head Agri Business Group, Kotak Mahindra Bank, November 2010)

Similar sentiments were expressed in another interview:

“...If PepsiCo wants to get involved in CF with 1500 farmers, at Tata Capital, we build a kitty of money and assign it to them, which the corporation can use towards anything. It could be for paying to the farmer towards advance for the crops or paying to the seed corporation directly so that the farmer can use the best

seeds and pay back later. We will fund any project of Pepsi because we know that their balance sheet has strength. They have a strong paying back capacity. We don't need to deal with individual farmers...” (Interviewee, Cluster Head – Commercial and Corporate Finance, Tata Capital, December 2010)

Similar sentiments were expressed in yet another interview:

“...There are different ways though which financing works. If the food-processing corporations like Pepsi or Field Fresh like the kind of seeds we have to offer, and decide to use them for their contract farming operations, then they buy the seeds in bulk from us. Pepsi easily gets loan from the bank...” (Interviewee, Syngenta Seeds, 2010)

The field interviews discussed above show how private banks tie up with processing industries and extend loans in different ways that facilitate CF arrangements. In another instance, ICICI bank started its CF operations with a pilot project in Piparia, Madhya Pradesh with 25 wheat farmers for winter crop in the year 2000. They forged a partnership - where Rallis provided agri-extension services and inputs (Rallis India Limited is a TATA enterprise and represents the agri-business interests of the corporation. Hindustan Lever Limited provided buyer for the crop output (HLL is India's largest consumer goods corporation owned by the British-Dutch corporation, Unilever) and finally, ICICI bank provided loans for the crops and pro-actively facilitated this linkage (Hegde 2004). Plate 3.4 shows the coming together of three corporations for CF.



Plate 3.4: Logo shows business tie-ups between Rallis India Ltd., ICICI bank and HLL

Some of the other Indian commercial banks that were involved in supporting CF initiatives are –UTI¹⁰, Indian Bank¹¹, Punjab National Bank¹² and NABARD¹³. There are

¹⁰ UTI Bank has been lending for dairy, poultry, hatchery, plantation etc. In contract farming, the bank is working along with cotton mills, sugar corporations and seed corporations. It has also signed an agreement with Enterplan Ltd, UK, to support a project to fund eucalyptus plantation farming near Bhadrachalam in Andhra Pradesh. The UK Government's Department for International Development (DFID) has set up the Financial Deepening Challenge Fund (FDCF). The FDCF will financially support the project in the form of a capacity building grant. The bank will provide a five-year loan to farmers at a low rate of interest through a Plantation Farmers Cooperative Society. The interest and the principal will be repayable together at the end of the term.

¹¹ Indian Bank is planning to tie up with global processed food majors and domestic corporations to improve its lending under contract farming. Last year, on experimental basis, the bank had financed two contract farming projects in Tamil Nadu. The management has decided to be more aggressive on contract farming as it offers a lot of business opportunities. It is in talks with both multinational and Indian corporations for extending more finance under this category. These corporations will identify the market, understand the demand for the crop, identify the area where the crop is being cultivated, bring the farmers together and motivate them to cultivate. The bank will then finance the project at competitive rates of interest. The corporations will also assist the farmers by providing necessary inputs for growing crops like seeds, fertilizers and other technical information. (KPMG 2006)

¹² Punjab National Bank has been actively involved in agricultural development in Punjab. It has signed a MOU with Mahindra Shubh Labh Ltd for contract farming of Basmati and Maize. PNB has discussed contract farming of maize, tomato and barley with Sukhjit Starch Ltd, M/s Nijjar Agro and United Breweries Ltd respectively. The head office has circulated information about contract farming to all the branches. PNB is planning to organize a meeting of Ludhiana industrialists, PAU, NABARD and other related departments in order to create awareness about the latest technologies in agro-processing and to motivate them for setting up agro-processing units. (KPMG 2006)

¹³ NABARD plays a pivotal role in contract farming sector by partnering with banks. With the help of NABARD, banks are able to receive technology inputs thus leading to lower cost of loan supervision, risk reduction and higher loan realisation. The arrangement is such that NABARD and the concerned bank share the loan costs and risk in an agreed proportion. NABARD takes care of project appraisal with the terms & conditions being mutually negotiable. NABARD has already signed MoU's with 10 banks. NABARD has also undertaken a number of promotional initiatives for contract farming. Some of these include orientation programmes for bank officials, partnership with APEDA & EXIM Bank for synergising

other ways as well, by which banks are seen to be investing in agriculture. For instance, banks are investing in infrastructure for food processing industries. So, Rabo Bank (India) Limited and National Housing Bank have been actively involved in financing the construction of cold storage to make perishable commodities like vegetables, fruits and flowers available throughout the year. It is appropriate to reiterate that these commodities are increasingly grown through CF.

It should also be noted that in usual circumstances, if required, non-contract farmers directly take loans from the banks in order to invest and operate their land. However, the relation between private banks and contract farmers is different. Here, the banks do not interact with the contract farmers directly. They do so through the contracting corporations. However, in an interview I was told that contract farmers are also encouraged to make use of government subsidies wherever possible. In an interview with General Manager of BASF, he said that we often encourage the contract farmers to take loans -

“...Government is ready to give you loan, take it, we will tell you what to do with it...” (Interviewee, General Manager – Technical Services Crop Protection, BASF Chemical Corporation, 2010)

efforts, sensitizing stakeholders through state & district level meets and providing technical inputs for farmers through Farmers' Clubs. (KPMG 2006)

The assumption behind this statement is that the Indian State plays a paternal role towards its farmers and hence 'pampers' them (Interviewee, Director Tilda Rice, 2007). As a result, they are also offered loans and subsidies at very low interest rates. The corporates expect that the contract farmers would take the loans from public banks and then channelise those funds towards corporate houses to buy their agri-input products. So contract farmers also become buyers of the commodities and not just sellers of contracted crops. Further, through CF, an agribusiness corporation reaps the full productivity of land, without investing a penny in buying or leasing in the land, and they make use of credit without having to take any credit or pay any interest on it. To paraphrase Marx (1990), the credit system and access to finance acts as an assistant of accumulation of capital for the CF corporations.

While continuing the earlier interview, the General Manager of BASF chemical corporation goes on to say -

"...The trick of CF, is in how deep you are able to dig into farmers' pocket and keep drawing money out of it, without him realizing that we are doing so. On the contrary, the farmers end up thinking that we have in fact, helped him. That is true as well. But, you see, we have helped ourselves more...Without doing any labour, the corporation has made all the money out of it..." (Interviewee, General Manager – Technical Services Crop Protection, BASF Chemical Corporation, 2010)

This quote shows that access to credit by private banks and by the State, assist the agri-input corporations such BASF, along with the contracting corporations and the farmers. Towards this end, many corporations enter joint ventures in order to maximise their economic benefits.

International and domestic corporations often come together to profit from the 'virgin' horticulture market. For instance, American food processing giant, Del-Monte, has tied up with an Indian corporation, Bharti-Field Fresh, to produce processed fruit products for Del Monte through CF. In fact, Fresh Del Monte has also signed another agreement with another Indian corporation, Rise n' shine biotech, for a long-term production and purchase deal (Hey 2009, 60). The purpose of such ventures has often been to share mutual resources – land, labourers, technology and market. Similarly, Dutch fruit supplier Fruit World Breda got into a joint venture with Indian produce exporter Naturefresh Logistics. Together, they have created a new facility for processing pomegranate arils in India. This joint venture is called FreshAcres Agri India, and their plan is to process 22.4 tonnes of arils per week from 75 tonnes of raw product. and export them to fresh-cut markets in Europe, Asia and potentially North America (Cheshire 2009, 52). By sourcing and processing fruits and vegetables in India, not only do the corporations take full benefit of cheap labour, they also cut costs on transporting 'dead weight' (that is the weight of fruit peels/rinds etc) to Europe (Cheshire 2009, 52) ¹⁴.

¹⁴ In another instance, Mahindra *Shubhlaabh* the agribusiness corporation of Mahindra & Mahindra Ltd., has also entered into an exclusive strategic alliance with Dutch corporation HZPC BV, a 110 year old,

The general-manager of agribusiness development of FieldFresh Foods Private Limited (FieldFresh is a joint venture between Bharti Enterprises and Del Monte Pacific Limited) commented -

“...when we get into contracting agreements with farmers, we do not walk alone. For instance, some of our business partners are Syngenta, Bayer, Dupont, BASIF and so on. We are the pioneers in growing baby corn in India. We closely worked with Syngenta (the giant seed corporation) on this and now we are the largest buyer of baby corn seeds from Syngenta. Of course, it is the farmer who is buying the seed to grow baby corn for us – but then, it is because of us that Syngenta is able to sell their product. Similarly, once a corporation like Dupont convinces us that their products will be best for the seeds we are going to use, then we recommend that product to our farmer. We always recommend our farmers to use the best pesticides and fungicides available in the market...” (Interviewee, FieldFresh Foods Private Limited, 2009)

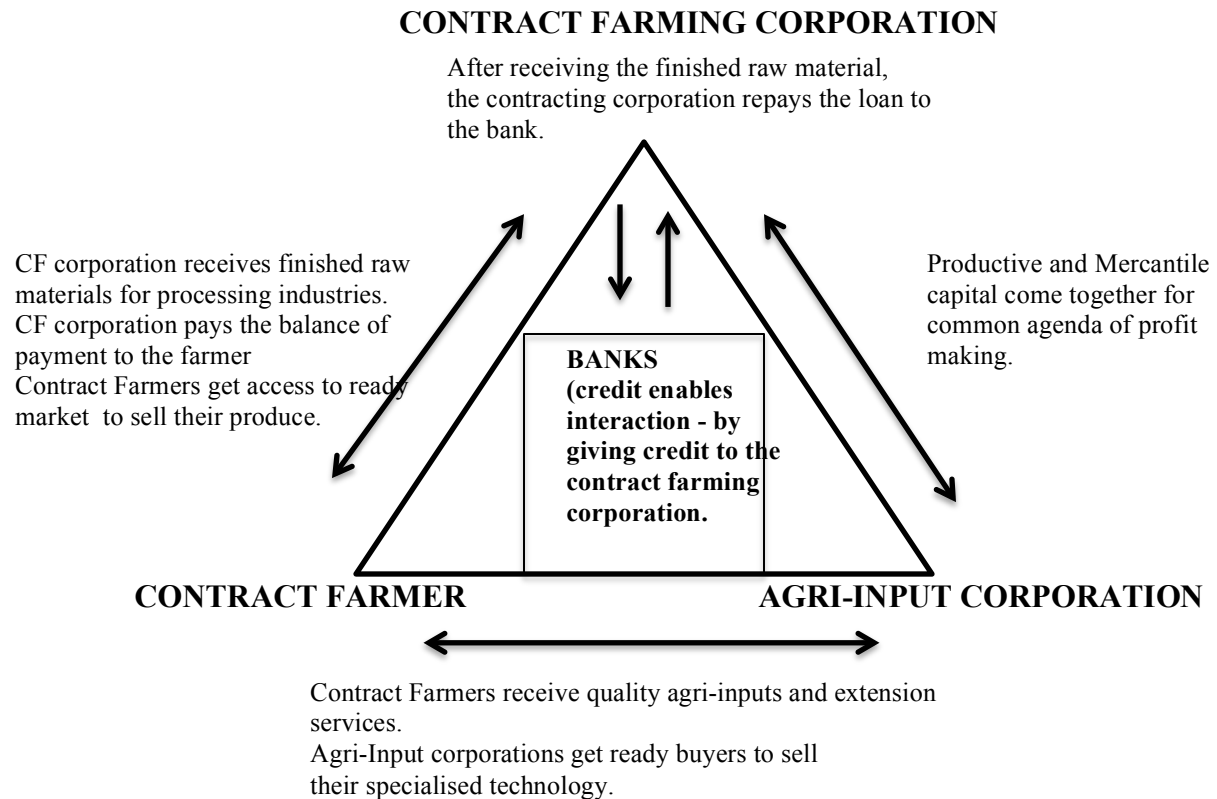
The above quote reiterates the symbiotic and mutually beneficial economic relation between finance, productive, mercantile and agrarian capital while facilitating CF. The

Euro 225 million global leader, to produce, market and export seed potato from India. Mahindra *Shubh Laabh* is part of Mahindra's Farm Equipment Sector and was India's leading exporter of fresh Grapes to the European Union in 2008. HZPC Holland BV is one of the world's largest private seed potato corporations and was established in 1999 after the merger of two of the leading Dutch seed potato exporting corporations- “Hettema” and “De ZPC”. With this alliance, HZPC will bring in its leading “IPR” protected varieties which will also be offered to the Indian market following CPRI & Govt approvals. These will also form the basis of exports as “Mahindra-HZPC” co-branded products.” India's potential as a seed production hub for potato-producing countries in the region is very attractive on account of its timing, clean crop production conditions and cost advantages (Hey 2009, 62).

corporations become partners in generating maximum profit for individual firms. The agri-input corporations (as indicated in the quote above) such as Syngenta, Dupont, BASF, etc. are brought together through access to credit which enables an interaction between different players in the game of CF.

Figure 3.3 below shows how this corporate linked CF model looks like. The banks provide credit to the contract farmer through agribusiness input corporations (for seeds, agrochemicals etc). These input corporations provide necessary services to the contract farmer. The contract-farmer sells the final produce to the processor and the processor pays the balance of payment to the contract farmer and the agri-input corporations. Finally, the processor repays the loan amount and interest to the bank.

Figure 3.3 - Social Relations of Contract Farming



3. CF creates conditions of competition between capital and leads to centralisation of capital.

In a field interview with a contract farmer:

“...There is only one problem with Pepsi – and that is sampling. If the samples do not match the standard requirements, then Pepsi does not take any potatoes from the contract farmer. But now, the Marino Group has also introduced contract farming in Punjab. They produce select varieties of potatoes that are good for

making potato powder. They require chip 1 variety of potato. So in case Pepsi rejects our produce, Marino takes all our potatoes. This gives us leverage too. There is some competition there. However, Pepsi and ITC are definitely in competition...” (Contract-farmer Mandeep Singh and Randeep Singh, Fatehgarhsahib 14 March 2009)

The quote above shows that at present there is no apparent ‘conflict’ between Pepsi and Marico. However, in the future, a conflict may arise. As of now, Pepsi and Marino are involved with cultivation of the same commodity - potatoes through CF for making different processed products. But as soon as both the corporations' diversify their product portfolio and both start producing chips, mashed potatoes etc., and compete for the same variety of potato, then in that situation conflict is a real possibility. In another field interview with Agriculture division head, Satnam Agro Food, I was told:

“...Satnam Agro Food does not see Pepsi as their competitor. At this moment, we are the biggest consumer of potatoes. Pepsi is only making chips. We make chips as well as flakes and fries. We have more products. The total potato that comes from our competitors is equal to what we produce just on our own farms. My vision is that I want to take the Contract production to 9000 acres in Punjab...” (Agriculture division head, Satnam Agro Food, Harkeerat Singh 22nd December 2007)

This interview excerpt substantiates my earlier points that if two corporations start producing similar products, then competition and conflict will/can arise. To overcome such situations, a couple of things tend to happen. First, the corporation tries to diversify itself into other 'commodities' and increase its portfolio. This diversification often happens by joint ventures, mergers and acquisitions. For instance, in 2007 ITC Ltd took over Australian agri-biotech corporation Technico Pvt. Ltd. as part of a strategy to strengthen its foods business. ITC, recently launched potato chips under the brand Bingo. Such "...concentration of already formed capitals, destruction of their individual independence, expropriation of capitalists by capitalist, transformation of many small into few large capitals...this is centralisation proper..." (Marx and Mandel, 1990, 777). Thus the acquisition of Australian Agri-biotech Corporation by ITC not only improved the profile of the corporation's foods business (PTI 2007) but also gave them more control over the food business in general. In a similar context,

“...For baby corns, we do not have competition, yet...” (Field Interview, General Manager, Agribusiness Development Bharti Del Monte India Pvt. Ltd 17 March 2009)

To discuss the above quote, table 3.5 shows that currently, only Bharti Field Fresh grows baby corn. As a result, there are no immediate concerns for competition with other corporations for Bharti. However, once the other corporations start seeing the advantages of CF for themselves, then competition will get tougher for Bharti-Del Monte.

Table 3.5 - Major Corporations (Productive Capital) involved with CF in Punjab

Crop grown through CF	Major Corporations involved in CF of the crops
Barley	PAFC, United Breweries, PepsiCo.
Rice - Basmati	Escorts, Satnam Overseas, DD Intl. InCorp., Amira Foods India Ltd. (Escorts Ltd. And Grain tech), PepsiCo India Ltd. , Satnam overseas Sukhjiti Starch, Mahindra Shubhlabh Services Ltd, PAFC, Agrocel, GrainTech, HLL, Larson and Tubro, Mahindra Subhlabh Services Limited, Markfed, Pepsi, Rallis
Maize	Satnam Overseas, Sukhjiti Starch, Mahindra Shubhlabh Services, PAFC
Cotton	Syngenta
Hyola	PAFC
Milk	Nestle
Mint	A.M. Todd, Dabur, Himalaya International, AVT Natural Products, Natural Remedies Pvt. Ltd., HAFED, Reliance Group.
Tomato and Chilly	Nijjer Agro Food Ltd
Baby corn	Bharti (FieldFresh)
Poplar and Eucalyptus	J.K. Paper, WIMCO, BILT, ITC
Potato	Mahindra Subhlabh Services Limited, McKain, NAFED, Pepsi, Chambal Agritech, Nijjer, Golden Fries, ITC, Marino Group, Satnam Agri
Sunflower	PAFC

Source: Fieldwork (2008-2010) and FICCI Reports (2007, 2009, 2010)

Table 3.5 shows the various agribusiness corporations that are involved with CF operations in Punjab. The purpose of this table is to show that there are many corporations that are involved in growing the same crops and that there is thus a potential for competition and conflict between such agro-processing corporations.

Narrating an incident of how competition works when firms are involved with CF, during an interview with general manager of Agribusiness Development Bharti Del Monte India Pvt. Ltd, 2009, I was told -

“...Once, when I used to work with A.M. Todd¹⁵, in 2007, I had grown a variety called Native spearmint. Now, the market opened at 70% higher than the buy back rate we had fixed. We were sure that the mint oil would go to our competitors. My seniors were eager to declare 'bonus' – that was over and above the contracted price so that farmers would sell the oil to A.M. Todd. I asked my bosses if we could ever 'match' the price to market price? They said, no, since we already had further contracts with Colgate, Perfetti and Wrigglies etc. and they would not increase their contracted money for us. So how can we increase it for the farmers? Instead, I decided to hold back the declaring of final price for mint oil and talked to the farmers. I reassured them of 'increased' bonus money – that will be disclosed only once the oil is sold to A.M. Todd. As a result of this talk, I got almost 99% of oil. In the meanwhile, I kept all the competition in suspense. And I gave the farmers a high bonus. Corporation saved crores of money that year...”

¹⁵ AM Todd is US based multinational a leading supplier of mint oils. It Supplies to food, beverages and cosmetic industry. It is thus a supplier of intermediate product. The corporation entered India in the mid 90s and chose Punjab. For the farmers the cultivation of mint crops fits well in their crop cycle of Paddy, Potato and Mint.

This interview highlights the key contradictions inherent in CF system of agrarian production. First, when there is competition between two firms producing the same products - such as mint in this case, then it tends to create a situation of crisis. In Punjab, mint is grown through CF by A.M. Todd, Himalaya, Dabur, etc. (see table 3.5 for more details). A.M. Todd had contracted with the farmers at a relatively low buy back rate assuming that the 'market' will be helpful to them. However, when the open market revealed the buy back rates of mint, it caused panic among the contract farmers. At this point, the other competitors announced a rate that was better than everyone else's rate. The quote above is an example of what the executive at AM Todd did in order to ensure that farmers sell their mint to them and no one else. Therefore, the ability of the contract farmer to make use of competition between two corporations creates conditions whereby he sells his produce to a higher bidder. However, the actions of A.M.Todd in response to this competition show the merits of CF for such corporations - getting the raw material from the farmer at the cheapest rate possible without having to go to the *mandi*.

CF also creates such conditions of capital centralisation whereby capital accumulation happens without dispossession. For instance, in 2005, presiding over a business awards night, Mr. P. Chidambaram, the Finance Minister of India – called upon the corporate leadership to play a major role in raising agriculture to world standards but-

“...Without disturbing the balance between the land and the tiller...”(UNI-United News of India 2005).

Here, I argue, lies the logic of CF. CF is about capitalist accumulation in rural India without dispossessing the farmer, without disturbing the farmer-land relation. It represents (state-supported) accumulation without dispossession. It 'brings together' several peasants and makes them operate their individual lands as if it is one large tract of land. A respondent said -

"...CF gives us the freedom to increase and decrease our total area of production as per the market demands. We increase farmers in the pool when our production needs to be high and we remove them from the pool when production needs to reduce..."

This quote above shows that contract farming helps the corporations to make use of the farmers' land as and when they needed, without having to 'invest' in land as an additional cost to their own production. For instance, in 2012, there was a newspaper report where PepsiCo planned to increase the number of contract farmers, from whom it sourced potato and barley, to reach 30,000 by the end of 2013, (PTI 2012). This report along with the quote above shows PepsiCo centralises the several land parcels into one and operates it as if it is a single piece of huge land. This is indeed centralisation proper.

Section 3.5 Contradictions of CF Production

In the previous section I laid out the relations that constitute CF. It is important to bear in mind that these are the same relations of production that, in fact, make CF prone

to crisis. The contradiction that is thus inherent in CF production system is overproduction. Continuing from the discussion in the previous section on competition, it follows that as a consequence to the inherent rise of competition and conflict in capitalist agri-production such as CF, the competing corporations tend to overproduce even though the demand is limited. As a result, prices of the commodity crash, leading to situations where the corporations seldom honor the contracts.

It is indeed in the economic interest of the contracting corporations that there be no scarcity in the market least the prices will increase. Some agribusiness corporations thus take it upon them to safeguard their interests and actually produce more than they require so that the market is not starved and prices do not escalate. For instance, in an interview,

“...It becomes a deliberate decision on our part that a little more than the corporation's requirement should be produced, so that the market is not starved. This is because, even if there is a 5% shortage of a particular agriculture commodity – such as potato etc. in the market, then the prices can go up over and beyond 5%. So we have to make sure that there is enough in the market for everyone. So as a general rule, we contract out 25% more than we actually require. We dump the rest in the market – so that the market is not starved and prices do not escalate and we continue to get cheap products..” (Interviewee, Chairman, Global AgriSystem Pvt. Ltd, June 2009)

Now, when all corporations start thinking in a similar way – that is - hoping to be the only one to do so – then a collective failure occurs (Richards 2001, 16) , leading to overproduction. Such contradictions are inherent in CF. For instance, even though contract farming started in the Punjab region from 1995-1996 when Pepsi started to contract out for tomatoes for its processing plant, the general implications¹⁶ of the contracting process started to come to notice only from the year 2000 (as per the media reports). A newspaper reporter wrote -

“...Before 2001, potatoes were grown only in the districts of Jalandhar and Amritsar. Now other districts such as Kapurthala, Ludhiana, Bathinda and Faridkot have also started growing them. The production in the state has exceeded the demand and potatoes from other states are also arriving in the market – as a result, causing a glut in the market..”(Vasdev 2001).

So in other words, over-production is written into the CF system. What we observe in this media report is that there is an unplanned production of potatoes. That is, the agribusiness corporations are not discussing among themselves the quantity of potatoes that they should all be growing together to avoid a crisis. As a result over-production becomes a deliberate attempt on the part of the corporations to keep the market prices low. However, this kind of over-production is meant to “regulate” market

¹⁶ This section is primarily based on archival information from newspapers, since it was beyond the scope of the researcher to study overproduction in a 'current' format. Hence much of the information for this section starts from the year 2000. This is the year from which one starts reading some critical news on Contract Farming.

prices for the corporations. But problem arises when everyone starts thinking in similar way, then the abundance of contracted crop in the market lowers the prices considerably leaving the farmer helpless.

In another instance, in 2005, there was rise in the cotton output and lack of infrastructure with procurement agencies in Punjab (Jha, 2005). In Punjab, cotton seeds are primarily provided by Syngenta Corporation and the contracting agreement is between the state and the farmers to buy back the produce. This is the state's way of promoting class-interests of Syngenta and promoting CF in Punjab. The farmers had invested heavily for a bumper cotton crop (Jha 2005). According to the chief minister Amarinder Singh, there was a surplus of 200,000 bales of cotton which together Markfed, Nafed and even Cotton Corporation of India were unable to purchase (Jha 2005). This led to distress selling of cotton in many *mandis* by the farmers leaving them heavily indebted. This episode of over-production of cotton in Punjab shows that there is no coordination in how much can be purchased by the government agencies, and how much seeds and other inputs should be sold to reach that target. In this particular case, overproduction of cotton is impossible, without the simultaneously overproduction of seeds, chemicals and overproduction of capital (over accumulation).

3.6 Conclusion

The central argument in this chapter is that CF as a system of agrarian production needs to be understood in terms of a structure of relations of production that constitute them and the contradictions that are internal to it. I argue that CF brings together all three forms of capital together - productive capital (both in agriculture and industry), mercantile capital, and finance capital. There are three key aspects of CF that are central to the relations that constitute them. First, Contract Farming is a way to increase productive consumption of technologies produced by agri-input corporations. That is, in CF, a farmer is as much a seller of commodities, as he/she is a buyer of commodities. Also, an agri-input corporation (seeds, crop protection chemicals etc) makes its profit by *selling products* to CF farmers, just as a CF corporation makes a profit by *buying products* from these farmers, and not by getting involved with actual agrarian (capitalist) production. The second aspect of CF that I have identified is that Contract Farming enables the agri-input corporations to access credit meant primarily for farmers. Following the mandate of the Reserve Bank of India, banks are stipulated to lend 40% of their total adjusted net bank credit (ANBC) of last fiscal to priority areas like small manufacturing units or exports. They are supposed to lend 18% of the ANBC to agriculture and allied services as a sub-target. Contract Farming then becomes a way for the banks to lend to agriculture - and in this context, Corporations such as PepsiCo or A.M. Todd receive the benefits of the credit meant for the development agriculture sector. The third aspect of CF in my discussion is that CF creates conditions of

competition and conflict between capital leading towards centralisation of capital. Here I show two instances of capital centralisation. First, drawing from a newspaper article I show how ITC, an Indian Conglomerate of much repute in India, has tied up with Australian Agri-biotech corporation Technico Pvt. Ltd. as part of a strategy to strengthen its foods business. ITC has a substantial presence in contract farming of potatoes in Punjab. By transforming smaller corporations into few large capitals, ITC not only aims to diversify itself into other commodity markets, it also aims to control the food business in general. In the second instance, I show that CF is about capital accumulation in rural India without¹⁷ dispossession of the farmer - without disturbing the farmer-land relation. In fact, CF is emerging as a way to centralise land resource by the Corporations and operating on it as if it is one big parcel of land.

The second argument in this chapter is that there are internal contradictions of Contract Farming, which in turn impact the way it develops. For instance, planned overproduction by contracting firms indicates that the goal of their firms in such situations is to obtain a larger share of growing market by reducing prices and lowering profit margins so that small corporations/farmers would have trouble surviving even during a market expansion (Heffernan 2000, 68). An excerpt from an interview conducted during my fieldwork will help in explaining this. I was told -

¹⁷ This is quite contrary to the idea popularised by Harvey (2006) in his thesis on accumulation by dispossession.

" ..for instance, by selling a pack of Parle-G biscuits at Rs. 5/-, I can compete with Britannia and other companies, but how do I compete with the roadside bakery who has zero overhead costs?...You see our problem?..." (Interviewee, Cluster Head-Commercial Finance, Tata Capital Ltd. 2009)

Here, my interviewee was explaining how it is important to weed out the small players from the market who unknowingly disturb the 'economic plan' of corporations. In this sense, unplanned overproduction assists in reducing competition. Using some archival media report, I show how capitalist crisis is due to the contradictions between the capitalist tendencies to develop without limit with respect to the market.

Chapter 4

Stating the Obvious: The Capitalist Indian State & Contract Farming

4.1 Introduction

The structure of complex relations of production that includes labourers at the lowest ladder and big corporations at the top, requires a state that secures the conditions for reproduction of those relations. The purpose of this chapter is to demonstrate that the increasing trend of contract farming (CF) in India is a result of the mediating role that the Indian State plays in implementing a neoliberal agrarian agenda, one that is guided more by profits of agribusiness corporations and less by national development priorities, i.e. priorities from the standpoint of ordinary workers and small-scale producers¹⁸.

This chapter has five sections. The first section discusses the changing approach of the state towards agriculture through the successive Five Year Plans. While it is true that the Five Year Plans are only indicative in nature (in that they may only suggest policies), it is nonetheless interesting to see the aspirations of the elites reflected in these plans and how the approach to agrarian economic development has been changing over

¹⁸ While discussing the issue of 'right to food' Ananya Mukherjee Reed argues that the right to food should also incorporate the right of the producers to grow whatever they desire. Right now, the power to determine food production resides with large agribusiness (Mukherjee-Reed, 2010)

time. In the next section, by discussing three related policies, I argue that the Indian State is creating a market-friendly environment for corporate capitalists to penetrate in rural India. Here, I critically discuss India's New Agriculture Policy, 2000 which encourages CF and corporate led agriculture development. This will be followed by a discussion of the National Seed Policy, 2002 and the National Policy for Farmers, 2007. The creation of such policy documents is a reflection of the visible shift in the priorities of the Indian State. This shift is seen with more encouragement being given to corporate players, both domestic and multi-national. In the third section, I discuss reforms that are being introduced to promote CF. Here I discuss (i) agrarian marketing reform (ii) financial sector reform and (iii) changes in agriculture research and development (R&D). It should be noted here that these reforms were not driven solely by a CF agenda, but rather by the New Economic Policy of the 1990s and the larger agenda of promoting corporate capital. But at the same time, they also contribute towards promoting CF. In the fourth section, I go 'inside' the state to critically unpack its agentic role in facilitating CF, and finally this section is followed by a conclusion.

Section 4.2 National Five-Year Plans

India has a federal political-economic architecture made up of a central and state government. This structure provides the central government with the overarching power to concentrate the administrative and financial powers in its hands. At the same time,

there are some sharing of powers¹⁹ and resources between the central and state governments. Agriculture, famously, comes under the jurisdiction of state governments. However, the central government does provide guidelines and create policies in a top down manner to eventually be adopted by the individual states.

The first Five- Five-year Plans²⁰ (up to 1980s) were geared towards solving the food crisis in the country. Post-Independence, Prime Minister Jawaharlal Nehru's focus was on the development of public infrastructure and public institutions that could help India gain food self-sufficiency. So the Nehruvian phase of the first three Five-Year Plans was aimed towards bringing more land under agriculture and increasing agriculture production. Since then, the middle of the 1960s (the post-Nehruvian phase), achieving food self-sufficiency became the cornerstone of the Indian political system. The Green Revolution Technology (GRT) was introduced during this time and the usage of miracle seeds in selected parts of the country saw unprecedented increase in food grain production. The Indian State played an important role in building infrastructure for irrigation, research, and extension services to support the new technology. However, by the 1980s, the ills of the GRT: stagnation in agriculture production, stagnation in farm

¹⁹The legislative powers are divided into three lists of items. The union list falls exclusively under the domain of central government of the Indian union. The state list falls exclusively under the domain of the individual state governments and union territories. And finally the concurrent list has those subjects that fall under the domain of both the central as well as the state governments and about which each can independently promulgate laws and lay down rules. However, in case of conflict, the law of centre prevails. In fact, the centre transfers subjects from the state list into the concurrent list whenever an opportunity presents itself (Karat 2004, 3).

²⁰ Discussion on the National Five Year plans has been done by referring to the following original documents - Government of India, Planning Commission 1951; Government of India, Planning Commission 1956; Government of India, Planning Commission 1961; Government of India, Planning Commission 1969; Government of India, Planning Commission 1974.

incomes, ecological degradation and unevenness in the spread of the technology had become apparent (Shiva 1997).

With the beginning of neoliberalism in middle in 1990s, the World Trade Agreement on Agriculture, 1995 (henceforth AoA) changed the way agriculture was being practiced in the developing countries. The AoA made it clear that the G8 countries wanted to remove all the restrictions put on exports and imports from developing countries. Recently, the World Trade Organisation (henceforth WTO) convention was held in Bali in 2013, where the Director-General Roberto Azevedo proposed that India should challenge the peace clause where agriculture subsidies cannot be challenged (Mehra 2013a). Article 13 of AoA is referred to as the peace clause. According to this clause, a country has a sovereign right to provide measures to support farmer in domestic and international export market by giving subsidies of various forms. The clause further protects the country from other WTO member countries since the decision to support their own farmers cannot be challenged (PTI 2013b). It is indeed, in the interest of the WTO members that the peace clause be removed so that countries would have greater freedom to take action against each others' subsidies and facilitate better conditions for 'free trade' (WTO Backgrounder 2002). For now India has rejected the peace clause on account of maintaining food security (PTI 2013b). On the other hand, it is becoming easier for the North American and EU nations to dump their surplus on the developing countries in the form of exports because their farmers are heavily subsidized.

Thus, in other words, as per the peace clause, the Indian State is required to remove the farm subsidies, ruin its farmers and then create conditions to not only allow the dumping of their agriculture surplus as 'imports' into India - but also facilitate exports of niche agriculture products for the consumption of the North American and European nations. Such double standards - both from the side of the States of the 'developed countries' and the Indian State that vies to promote the interests of the common man need to be challenged.

However, since the GoI 'stands' to strengthen the WTO Agreement (Mehra 2013b), in the ninth Five Year plan, it was stressed that food security will still be crucial, but that it would incorporate more than just food grains. This becomes apparent in the following quote from the Planning Commission's ninth Five Year Plan document: -

“...Food security will include not only food grains, i.e. rice, wheat, coarse cereals and pulses but also all major food items including oils, sugar, fruits & vegetables, milk, egg & meat and fish...” (Government of India, Planning Commission 2002, 4.1.20)

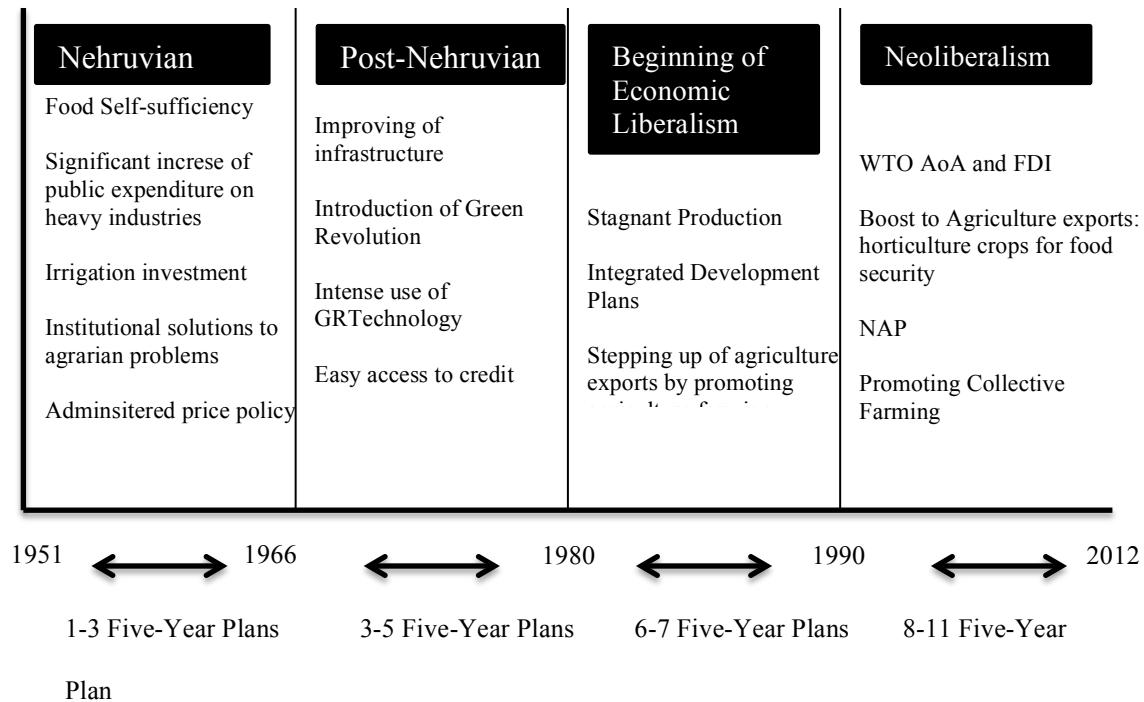
In a way, the horticulture crops had become part of the maintaining 'food security' argument of Indian State which started in the 1960s. That is, the Indian State wanted to encourage production of high value horticulture crops in order to maintain the food security of the country. The thrust of the subsequent tenth Five Year Plan was thus on promoting high value crops like oils, fruits & vegetables, flowers, etc., along with the

assistance to corporate capital in getting right inputs, seeds, marketing, extension services and so on (Government of India, Planning Commission 2007). Although, according to M.S. Swaminathan (2007:1-2) the annual growth rate achieved during the tenth Five Year Plan (2002–03 to 2006–07) averaged around 2.3% instead of 4%, as planned.

Subsequently, in the eleventh Five Year Plan, the ground was laid to promote corporate led agriculture ventures (Government of India, Planning Commission 2012, 37) that would 'include' small peasants - who have limited capital flow to access good quality seeds, agri-chemicals, etc. and who would work collectively. CF was identified as one of the ways in which small peasants can come together and work collectively (Government of India, Planning Commission 2012, 9). The neoliberal-capitalist turn received in particular encouragement from the new National Agriculture Policy, 2000 and National Seeds Policy, 2002 and National Policy for Farmers, 2005 – which are to be discussed in the following sections.

Figure 4.1 (below) summarizes the main points discussed so far. The figure is not just a pictorial depiction of the text, but instead, it tries to also bring together the main elements of the Five-Year Plans related to agriculture, and situate them in the larger political-economy context of India. The figure shows the progress of the various Five Year Plans in juxtaposition with the major political-economic epochs in the country.

Fig 4.1 Agriculture Development through Five-Year Plan



Source: Government of India, Planning Commission Five Year Plans (1956-2012) along with author's own assessment of the phases. **Note:** Some scholars like Rao (1996), have divided the phases of Agricultural Development into Pre-Green Revolution, Green Revolution and De-licensing & De-regulation Phase followed by Recent trends.

The purpose of this section has been to identify the specific points of departure found in the various National Five Year Plans to reflect India's changing priorities towards more corporate involvement of capital in Indian Agriculture. In the next section I discuss three policies advocated by the Indian State. In general, a policy is a viewpoint, a set of guidelines, which are taken into account before bills can be proposed to form into acts. What needs to be noted is that even if specific bills are not proposed and acts have

not been formulated, these policies are not just words put together. They have actual concrete implications. What is common between these three policies is their inherent need to 'serve' the interests of the corporate capital. These policies also show how, while they serve the interests of the corporate capital, they are capable of doing so in different ways.

Section 4.3 Agriculture Policies

(1) National Agriculture Policy

In July 2000, the Government of India announced its New Agriculture Policy (NAP). The purpose of this policy was to attain an agricultural output growth rate in excess of 4 percent per annum, based on an efficient use of resources (Chand 2004). The policy also helped in highlighting the need to bring agriculture to the forefront of political/development concerns by the central government. Addressing the press conference in New Delhi, Nitish Kumar, the then Union Agriculture Minister said:

“...Agriculture has become an increasingly unrewarding profession and corrective measures are the need of the hour. This (NAP) policy will help the farm sector to meet the challenges of economic liberalisation and form the basis of an action plan for agricultural growth...” (as quoted by Pyakuryal 2000, 15)

NAP is an action plan²¹ that the central government created to achieve the 4% growth rate in agriculture. This policy is a fine example of how the government at the Centre intervenes in the matter of 'state subject list' and finds ways and means to assert its power over the provinces. Some of the salient features of the NAP as clearly stated are -

1. Over 4 per cent annual growth rate aimed over next two decades
2. Greater private sector participation through contract farming.
3. Price protection for farmers.
4. National agricultural insurance scheme to be launched.
5. Dismantling of restrictions on movement of agricultural commodities throughout the country.
6. Rational utilisation of country's water resources for optimum use of irrigation potential.
7. High priority to development of animal husbandry, poultry, dairy and aquaculture.
8. Capital inflow and assured markets for crop production.
9. Exemption from payment of capital gains tax on compulsory acquisition of agricultural land.
10. Minimise fluctuations in commodity prices.
11. Continuous monitoring of international prices.
12. Plant varieties to be protected through a legislation.
13. Adequate and timely supply of quality inputs to farmers.
14. High priority to rural electrification.
15. Setting up of agro-processing units and creation of off-farm employment in rural areas.

List item 2, 3, 11, 13 and 15 are related to the CF form of agrarian production. For instance, 'price protection for farmers' - refers to a situation where farmers are assured a price that will be paid to them after producing the crop, which CF helps to achieve. An assured buy back rate from the processing corporation protects the farmer from the

²¹ This list of salient features has been taken from a document uploaded on the Research, Reference and Training Department of Government of India - <http://rrtd.nic.in/agriculture.html> – as accessed on 5 June 2013

market price fluctuations. Further on, 'continuous monitoring of international prices' is often achieved while fixing the buy back rate of the contracted crops. Despite what appears to be attractive conditions for farmers, CF as a system of agrarian production works best for the corporations, if allied industries are also set up. Setting up of agro-processing units, mega food parks²², agri-export²³ zones are like 'carrots' that aim to attract agro-processing corporations to undertake contracting operations in agriculture. It

²² Mega Food Park Scheme is a flagship program of Ministry of Food Processing Industries for Eleventh Five Year Plan. This Scheme is aimed at creating state of the art infrastructure facility for enabling setting up of food processing industries. Through backward linkages, Special Purpose Vehicle (SPV) of the Mega Food Park enters into an arrangement with peasants' group in the catchment area for production of desired variety and quantity of farm produce to ensure regular supply of raw material to the Mega Food Park. This has facilitated clusterised farming on demand driven manner with market orientation. The peasants are assured of the market of its farm produce and get remunerative prices thereby increasing their income considerably (Ministry of Food Processing Industry, GOI 2011). Mega Food Parks are being showcased as an investment destination to attract Foreign Direct Investment from any country including corporations from France. FDI is under 100 % automatic route for most of the processed food items. FDI may come for setting up of Cold Chain and Mega Food Park and/or processing units in the Mega Food Parks. It intends to bring new technologies, processes and products as well as O&M support. (Ministry of Food Processing Industries, GOI 2010). To encourage setting up of cold chain facilities and backward linkages in the country, Ministry of Food Processing Industries (MFPI) has a Plan Scheme for Cold Chain, Value Addition and Preservation Infrastructure during the Eleventh Plan to provide financial assistance to project proposals received from public / private organizations for cold chain infrastructure development. The scheme envisages financial assistance in the form of grant-in-aid @ 50% of the total cost of plant and machinery and technical civil works in general areas and 75% for North Eastern Region and difficult areas subject to a maximum of Rs.10.00 crore. The initiatives are aimed at filling the gaps in the supply chain, strengthening of cold chain infrastructure, establishing value addition with infrastructural facilities like sorting, grading, packaging and processing for horticulture including organic produce, marine, dairy, poultry, etc.

²³ The agribusiness corporations that are getting involved with contract farming are centering their entire effort around a region by identifying the potential products that can be grown and where the entire production process can be controlled – right from inputs till the time the product comes to retail stores. It is important to note that these zones are not 'bound' by territory and that there is an export obligation for peasants who are in these zones. AEZs have been conceptualized to take a comprehensive look at a particular produce/product located in a contiguous area for the purpose of developing and sourcing the raw materials, their processing /packaging, leading to final exports. The works carried out through AEZs in general are Farmer Training, Pre-Harvest Management, Infrastructure Development, Research and Development activities and Quality Control (Ministry of Food Processing Industries, GOI 2010)

is in this context, that I argue that CF, plays an important role in the NAP. Role of CF in NAP is that of a facilitator. The real intention is to encourage participation of corporate capital in agriculture. For instance, the next table shows sectoral distribution of approved FDI from 1991 to August 2004.

Table 4.1: Sector wise distribution of approved FDI in India (1991-2004)

Sector	Share in Total (%)
Fuels (Power and Oil Refining)	28.16
Transport Equipment	8.39
Services Sector	6.70
Chemicals (other than Fertilisers)	4.73
Food processing Industries	3.85
Paper and Pulp Including Paper products	1.26
Drugs and Pharmaceuticals	1.11

Source: (K. S. C. Rao and Murthy 2006, 15)

The table above shows that of all the FDIs that have been approved in India, approximately 5% of it has gone towards 'developing agriculture'. This includes 4% towards food processing industries and about 1% towards production of paper and pulp. As has already been repeated, CF led corporate agriculture development is still at a nascent stage of development in India and therefore what is being argued here is that agri-corporations are getting more involved with agriculture related activities in India.

NAP further states:

“...Adequate and timely supply of quality inputs such as seeds, fertilizers, plant protection chemicals, bio-pesticides, agricultural machinery and credit at reasonable rates to peasants will be the endeavour of the Government...” (Ministry of Agriculture, GOI and Ministry of Information and Broadcasting, GOI 2000, 1)

This quote subtly introduces the increasing role that agri-input corporations will be playing in Indian Agriculture. Since CF requires an adequate and timely supply of agri-inputs, it becomes important that their availability is not restricted. As a consequence, participation of corporate capital has received a high priority from the Indian State.

Further, NAP states:

“...A major thrust will be given to ... floriculture, roots and tubers, plantation crops, aromatic and medicinal plants, bee-keeping and sericulture, for augmenting food supply, exports...” (Ministry of Agriculture, GOI and Ministry of Information and Broadcasting, GOI 2000)

Cultivation of niche, export quality horticulture crops is the hallmark of CF. Flowers, medicinal plants etc are some of the crops that are increasingly grown through CF. Though it is true that cultivation of these crops is not limited to CF form of agrarian production and in general, as indicated in the previous chapter, there has been an increasing trend in the production and area under horticulture crops. The policy further states -

"...Availability of hybrid seeds and disease- free planting materials of improved varieties, tissue culture laboratories, emphasis on increased production, post-

harvest management, precision farming...and exports will be promoted...”
(Ministry of Agriculture, GOI and Ministry of Information and Broadcasting, GOI 2000)

Most of CF operations also require precision equipments, as will be discussed in the following chapters. However, since CF in India is still in a nascent stage, the usage of precisions equipments is limited, but on the rise. The policy further states:

“...The Government will endeavor to create a favourable economic environment for increasing capital formation and farmer’s own investments by removal of distortions in the incentive regime for agriculture...It will seek to bestow benefits such as easy availability of credit and other inputs, and infrastructure facilities for development of agri-business industries and development of effective delivery systems and free movement of agri produce...” (Ministry of Agriculture, GOI and Ministry of Information and Broadcasting, GOI 2000)

My critics will argue that as such NAP has nothing directly related to CF. Perhaps they are right. However, what I will argue is that NAP is a policy mandate to encourage maximum participation of corporate capital and export agriculture commodities. CF is a form of such capitalist agrarian production that enables participation of corporate capital that is mediated by the State.

(2) The National Seed Policy, 2002

Before the National Seed Policy, 2002 - The Seeds Act, 1966 and the New Policy on Seeds Development, 1988 were the two primary policies that were the basis of promotion and regulation of the seed industry. The said purpose of the new policy has been to focus on the slackening in the pace of agriculture sector. The policy states:

“...Seed is the most important determinant of agricultural production potential, on which the efficacy of other agriculture inputs is dependent. Seeds of appropriate characteristics are required to meet the demand of diverse agro-climatic conditions and intensive cropping systems. Sustained increase in agriculture production and productivity is dependent, to a large extent, on development of new and improved varieties of crops and an efficient system for timely supply of quality seeds to farmers...” (National Seed Policy, 2002)

The general thrust of the policy is to increase the food production for the future. To this end, the policy insists that the 'seed replacement rates'²⁴ of various crops need to be enhanced. That is, the farmer should increasingly start growing 'certified seeds' that are sold by agribusiness corporations and less and less from the saved/local varieties. This would require a major increase in the production of 'quality' seeds, in which the agri-input corporations are expected to play a major role. The policy further adds that biotechnology

²⁴ Seed replacement rate is the percentage of area sown out of total area of crop planted in the season by using certified/quality seeds other than the farm saved seed. Certified seed shall be the progeny of foundation seed and its production shall be so handled as to maintain specific genetic identity and purity according to the standards prescribed for the crop being certified. Certified seed may be the progeny of certified seed provided this reproduction does not exceed three generations beyond foundation seed stage-I (Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India - http://agricoop.nic.in/faq/faq_seed.htm as accessed on 6 June 2013.

will be a key factor in agricultural development and genetic engineering/modification techniques hold enormous promise in developing crop varieties with a higher level of tolerance to biotic and abiotic stresses in the coming decades (National Seed Policy, 2002). In fact, based on the National Seed Policy, 2002; in 2012, the Government of India prepared a draft bill for creating Biotechnology Regulatory Authority of India (BRAI). Accordingly, this authority will be an autonomous and statutory agency to regulate the research, transport, import, manufacture and use of organisms and products of modern biotechnology. In reality, the BRAI bill is seen as a quick one-stop clearing house to benefit GM corporations as a committee of just five scientists will be empowered to clear their patented technology for use in the whole country²⁵. Though the bill has not been passed yet, the activists are voicing themselves, arguing that the BRAI bill is India's Monsanto Protection and Promotion Act, giving a free hand to Monsanto and other Biotech giants to control our food security and endanger small farmer livelihoods (DCOnline 2013).

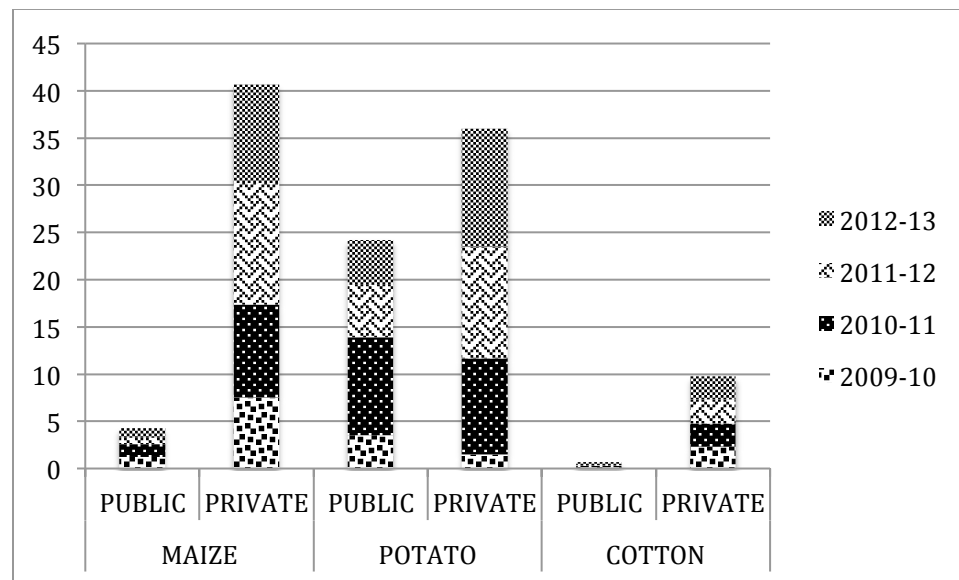
At this point, it should be noted that most of the agro-chemical corporations (like Syngenta, Dupont, Monsanto, Bayer, BASF, Dow) that are selling their crop protection plans to farmers doing CF are also amongst the top 6 corporations that control 58% of the global market share of seed sales as per 2009 report (Shand, 2012).

Figure 4.2 shows that since 2009 the share of private sector (agri-input corporations) seeds availability in maize, potato and cotton has increased. This is also

²⁵ For more details, please read - www.greenpeace.org/india/Global/india/report/BRAI-Critique-Report.pdf - as accessed on 16 January 2004.

followed by a relative decline in public sector seeds availability. The question really is, how would expensive seeds provided by seed-corporations help solve the issue of 'increase in food production - a.k.a. - food security - a major concern of the 'national seed policy'?

Figure 4.2 Public and Private Sector Seed Availability from 2009-2013



Source - Parliamentary Question Hour: Lok Sabha unstarred question no. 4011 regarding seeds provided by private corporations. Data as accessed on 1 June 2013

It is interesting to observe that the new agriculture related policies that are emerging post 2000 are all in the pretext of 'need to increase domestic food production'. However, the data presented above contradicts the very premise of the 'National Seed Policy'. Actually the focus of this policy has been to create conditions that will enable corporations to sell their seeds (Hybrid, GM, etc.) to the large Indian Agriculture Market. The 'need' for more certified seeds to replace the native seed varieties are a case in point. The state is going out of its way to further the agribusiness agenda. Under various schemes, such as the -

National food security mission, integrated scheme on oilseeds, oil palm and maize etc. subsidies are being made available to the farmers to purchase these expensive seeds (Parliamentary Question, 2012).

(3) National Policy for Farmers, 2007

The government of India approved the National Policy for Farmers (NPF) in 2007. The primary focus of this policy is to improve the economic viability of farming through substantially improving the net income of farmers. There is emphasis here on increased productivity, profitability, institutional support, and improvement of land, water and support services apart from provisions of appropriate price policy, risk mitigation measures and so on.

The NPF emerged as a response to the 'apparent' failure of the National Agriculture Policy, 2000. According to M.S. Swaminathan (National Policy for Farmers, 2007:1-2) the annual growth rate achieved during the Tenth Five Year Plan (2002–03 to 2006–07) averaged around 2.3% instead of 4%, as planned. According to him, NAP has been a failure since agriculture growth was not significant. NPF is thus seen as a 'significant' and 'precise' improvement over the NAP. The NPF lays out with more details on how the desired growth rate of 4% in agriculture can be achieved. Some of the main provisions and features incorporated in the policy revolve around CF.

The policy calls on the 'farmers of the future' (NPF, 2007: 21) by encouraging the youths to join agriculture, which is being promoted in a way that would create multiple livelihood opportunities, CF being of them. The policy claims that CF ensures a fixed market and that should encourage young farmers to join. For instance, the policy states that (to encourage the young into agriculture):

“...Symbiotic contracts which confer benefits to both producers and purchasers would be encouraged for ensuring assured and remunerative marketing opportunities to the farmers...Major thrust would be given to the development of floriculture, roots and tuber crops, aromatic and medicinal plants, bee-keeping and sericulture (NPF, 2007, 22)

The purpose of NPF is thus to attract the energy of the youth towards agriculture and to make it more 'contemporary and appealing to the new generation.' The call for the 'farmer of the future' is a call to push focus away from the old/decaying/poor farmers and agriculture methods and to bring to the forefront the new/swanky/suave/educated young farmers who would be receptive to 'new technologies' and reject everything 'old' about agriculture.

Section 4.4: Institutional Changes contributing to the Direct Promotion of CF

With the advent of New Economic Policy (NEP) in the year 1991, it has been been consistently argued that the rural sector offers a vast market for agro-based industries for future expansion. A need is therefore felt to ensure continued flow of investments into the rural sector (Sinha and Pushpendra 2000, 19). Thus to ensure proper rural development and to rely on market forces for the same, agri-corporations prefer to have 'efficient' and developed institutional systems to link the domestic system with the world market and to monitor the developments. It is argued that once the appropriate policies and institutions are in place, they would impact the agriculture sector significantly. In this context, institutional reforms in agrarian marketing, credit, institutions relating to agricultural R&D technology development, management, regulations etc., and are to be discussed in the following section.

1. Agrarian Marketing Reforms

Regulated markets are managed by the Agricultural Produce Market Committees or APMCs, although in some states they may be under a different name such as Agricultural Market Committees (AMCs) in Andhra Pradesh, Regulated Market Committees (RMCs) in West Bengal and so on (Planning Commission, 2011, 7).

Regulatory²⁶ barriers have constrained investments in the development of food storage and processing, hampered the development of effective market institutions, and lowered the capacity for agricultural producers to be internationally competitive. India, for example, is the world's largest producer of fruits and vegetables, but inadequate post-harvest storage and transportation has contributed towards a loss of around 30-40 per cent. Furthermore, only 7 per cent value addition takes place, and only about 2 per cent of production is processed commercially (Planning Commission, 2011, 8). As a result, a broad consensus has emerged on the need for reforms in agricultural market policies. Accordingly, quite significant reforms have been implemented in recent years as part of the ongoing policy reform process in India. In an interview with Joint Director and Head of Agriculture, Water and Rural Development at FICCI, I was told:

“...If India desires to carve out opportunities for herself in agri-exports sector, then reforms in APMC are highly recommended. These amendments will make CF and direct marketing to retail chains more easy....” (Interviewee, FICCI, 2009)

²⁶ Traditionally, India followed an administered price policy to protect both producers and consumers, and to enforce this policy, the government made a number of direct and indirect interventions in input and output markets. This resulted in creation of a number of institutions such as the Commission for Agricultural Costs and Prices (CACP), commodity boards, agricultural marketing boards, etc. The government, on the recommendations of the CACP fixes the Minimum Support Price (MSP) that acts as an insurance and an assured purchase for the farmers. Besides, a number of regulations were enacted to control agricultural marketing, particularly for foodgrains. These include the Prevention of Food Adulteration Act (1954), the Essential Commodity Act (1955), the Future Contracts (Regulation) Act (1952), Agriculture Produce Marketing Committee (APMC) Act (1954) of different states, the Prevention of Black marketing and Maintenance of Supplies of Essential Commodities Act (1980), restrictions on inter-state movements of food grains, regulations on input markets, particularly seed and pesticide, and quantitative restrictions on imports and exports, etc. (Sharma 2009)

To achieve an efficient system of buying and selling of agricultural commodities, most of the state governments and union territories enacted legislations (Agriculture Produce Market Committee Act) to provide for the regulation of agricultural produce markets. Thus, the APMC Act itself was a stepping-stone in agricultural marketing reform process. The basic objective for setting up this network of physical markets has been to ensure reasonable gains for the farmers by creating an environment in markets for the fair play of supply and demand forces. It also aims to regulate market practices and attain transparency in transactions. However, in recent decades the character of these markets has changed. A respondent who works with the government, said:

"...though the purpose of regulation of agricultural markets was to protect farmers from the exploitation of intermediaries, over a period of time, these markets have acquired the status of restrictive and monopolistic markets. The markets provide no space for any form of private participation..." (Field Interview: Lallan Rai, Agriculture Marketing, Government of India, 2009)

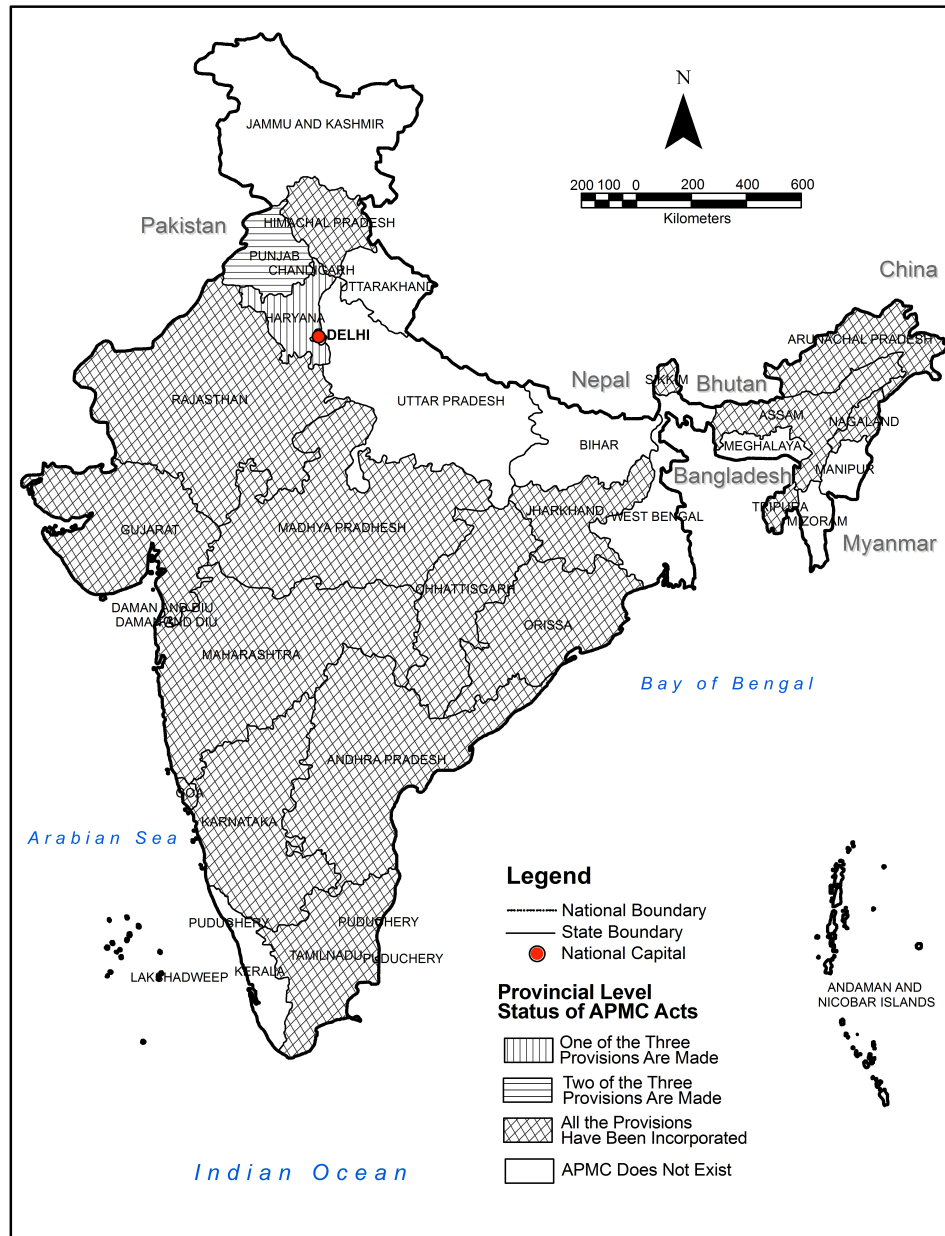
In accordance with the liberalization of trade, and the emergence of global markets, it was necessary to promote the development of a competitive marketing infrastructure in the country and to bring forward professionalism in the management of existing market yards and market fee structure (Planning Commission, 2011, 19). For this, the Ministry of Agriculture formulated a model act on agricultural marketing (The

State Agricultural Produce Marketing {Development & Regulation} ACT, 2003) in consultation with the state governments. The draft model legislation thus, provides for:

"...Establishment of Private Markets/Yards, Direct Purchase Centres, separate constitution for commodities like onions, fruits, vegetables, flowers, etc. A separate chapter has been included in the legislation to regulate and promote contract-farming arrangements in the country...it promotes alternative marketing system and CF. It also redefines the role of State Agricultural Marketing Boards to promote standardization, grading, quality certification, market-led extension and training of farmers and market functionaries in marketing related areas..." (State Agricultural Produce Marketing {Development & Regulation} ACT, 2003)

Thus, the purpose of this model act has been to amend some of the existing features of the APMC Act and open up the space to allow agri-corporations to procure directly from the farmers in all provinces, "...assist in organising and 'systematising' retail market for the corporates, help in smooth flow of raw materials to agro-processing industries..." (Sharma 2009, 48). The next map shows the spread of amendments made in the Agriculture Produce marketing act. There are three new provisions in the act that assist CF and corporate intervention in agriculture in states. Map 4.1 shows that most Indian states (shown in blue) have incorporated all the three amendments in their acts.

MAP 4.1: INCORPORATION OF APMC AMENDMENTS BY INDIAN PROVINCES IN THEIR RESPECTIVE APMC ACTS



Source: (Ministry of Agriculture 2010)

2. Financial Sector Reforms²⁷ :

With the entry of commercial banks in rural areas the share of cooperative credit in total agricultural credit has gone down. It fell from 70.8 per cent in 1975-76 to only 21.8 per cent in 2005-06. (Ministry of Finance 2007,50). On the other hand, the share of commercial banks has gone up from 33% in 1992-93 to 68% in 2005-06 (Assocham, 2012,9). The State government is responsible for extending financial support to state cooperative banks (Bhalla 2007,140). Given this relation, the question that arises is why did the State government reduce their funding to the cooperative banks? Posing this question is important because while the share of cooperative credit is now much lower than that of commercial banks, the reach of cooperative credit societies is much wider

Currently, commercial banks including the Regional Rural Banks (RRB's) are the dominant source of credit to the agricultural sector. Since the 1990s, the scheduled commercial banks have started lending more and more financial aid to the agriculture sector (Ministry of Finance, 2007,50).

“...The share of agricultural credit in total commercial bank lending rose from around 20 percent in the mid - 1970s to a peak of about 35% per cent in the mid of 1980s. Thereafter, it declined to a low of 30% in 1990s. However, since

²⁷ For a background on post-independence periodisation of banking sector in India - refer Ramachandran and Swaminathan (2005)

the 1990s, there has been an increase in the share of agriculture credit by Commercial Banks...” (Ministry of Finance, GOI 2007).

The revival in agriculture credit since the 1990s can be attributed to constant re-defining²⁸ of what constitutes 'indirect finance' by the Reserve Bank of India (Ramakumar and Chavan 2007, 58). Historically, agriculture credit comprised mainly of credit provided directly to the cultivator which was called 'direct finance to agriculture'. The second component of agriculture credit is 'indirect finance' which goes directly to institutions that support agriculture production in rural areas. A typical example of

²⁸ From the 1990s onwards, the definition of what constitutes indirect finance to agriculture has been broadened significantly by the RBI. The widening of the scope has, in all likelihood, influenced the growth of indirect finance from the mid-1990s. Some of the major changes introduced in the definition of indirect finance are given below. To read more details please refer to Ramakumar and Chavan 2007, 60

- The upper limits of loan (for financing distribution of inputs for allied activities in agriculture, such as cattle feed and poultry feed) has been increased from 5 lakhs (1994) to Rs 40 lakh in 2004.
- All dealers of drip irrigation and agriculture machinery, irrespective of their location, have been made eligible for cash advances Going upto 30 lakhs. Loans extended under the scheme for financing “agriclinics” and “agribusiness centres” were considered as indirect finance to agriculture.
- Subscription to the bonds issued by the rural electrification corporation (REC) exclusively for financing the pump set energisation programme in rural and semi-urban areas was considered as indirect finance to agriculture.
- From April 2007 onwards, two-thirds of loans given to corporates, partnership firms and institutions for agricultural and allied activities (such as beekeeping, piggery, poultry, fishery and dairy) in excess of Rs 1 crore in aggregate per borrower was considered as indirect finance to agriculture.
- From April 2007 onwards, loans to food- and agro-based processing units with investments in plant and machinery up to Rs 10 crore (other than the units run by individuals, self-help groups and cooperatives in rural areas) were considered as indirect finance to agriculture.

indirect financing to agriculture is a loan provided to agriculture input dealers for their role in the provision of agricultural inputs and a loan to boards for electricity supplying power to cultivator (Ramakumar and Chavan 2007, 58). The table 4.2 below shows that the share of indirect finance has increased in the total credit to agriculture from the scheduled commercial banks.

Table 4.2: Increase in the share of indirect finance (1985-2005)

Shares of Direct and Indirect Finance in total credit to Agriculture from Scheduled Commercial Banks			
Share in total agriculture credit %			
Year	Direct Finance	Indirect Finance	Total
1985	83.2	16.8	100
1990	85.9	14.1	100
1995	85.9	14.1	100
2000	84.5	15.5	100
2005	76.1	23.9	100

Source: (Ramakumar and Chavan 2007, 58)

For instance, the table shows that in 1985, 16.8% of the total indirect finance that was given towards agriculture, increased to 23.9% in 2005. Whereas, direct finances saw a negative growth rate. Some attribute the positive change in the share of indirect credit

towards changes in the definition of 'indirect finance' to agriculture since the late-1990s have also been in line with the new emphasis in this official policy. It should be noted that although CFs are not referred directly to in the policy vocabulary, indirectly many things have been envisaged to create a congenial environment, which can help CF (Rathore, 2004). For instance, 40 per cent of the credit of the banking sector goes towards the priority sector and out of this 18 per cent has to be for agriculture. Because of the '*dictat of 18% of priority sector lending*' (Sahgal 2008) private commercial banks are beginning to slowly focus on lending to the agricultural sector, albeit reluctantly. Paying to big agribusiness corporations such as Pepsi etc. for running CF operations proves to be a way out for the banks. In fact, when banks route their money through the agribusiness firms for CF, there is a lower cost of loan supervision and technology inputs, which consequently means that there is a reduction in the risk of non-payment of the loan amount and so on (Rathore 2004).

Apart from giving a loan to Pepsi or another CF corporation, banks have also started re-directing credit as 'packing credit' for Agro-Export Oriented Units in Agro-Export Zones for procuring & supplying inputs to farmers under CF arrangements. This is another instance of indirect finance. For instance, in 2002, a notification was issued by the Reserve Bank of India to the Deputy Commissioners' of the Export Processing Zones²⁹. The notification informed them that to promote agri-export zones, production

²⁹Madras Export Processing Zone - <http://www.mepz.gov.in/content/notiGOI/Od/rbiagricredit.htm> – as accessed on 13 June 2013. The notification states: "...Government of India has laid special emphasis on exports of agricultural products in the Exim Policy announced in March 2001 and have decided to set up

and processing have to be integrated. Therefore the government suggested that the export processing units may be provided with packing credit for the purpose of procuring and supplying inputs to the farmers so that quality inputs are available to them. This in turn will ensure that only good quality crops are raised. Banks are thus playing a crucial role in developing a farming system that is conducive to capitalist accumulation at a world scale.

A recent report published by the RBI argues for an increase in the scale and scope of agriculture (Vyas 2004, 8) along with an increase in the disbursement of credit. It further emphasises that the available credit should be readjusted in line with the requirements of a modern, market-oriented capital intensive agriculture. It goes on to say

Agri-Export Zones in the Country to promote agri-exports...Government have proposed that Agri Export Oriented units (processing) would be set up in Agri Export Zones and to promote such units, production and processing have to be integrated....The producer has to enter into contract farming with the farmers around the unit and has to ensure supply of quality seeds, pesticides, micro-nutrients and other material to the group of farmers from whom the exporter would be purchasing their products as raw-material for production of the final products for export...The Government have, therefore, suggested that such export processing units may be provided packing credit under the extant guidelines for the purpose of procuring and supplying inputs to the farmers so that quality inputs are available to them which in turn will ensure that only good quality crop are raised. The exporters will be able to purchase/import such inputs in bulk which will have the advantages of economies of scale...In the circumstances, banks may treat the inputs supplied to farmers by exporters as raw material for export and consider sanctioning the lines of credit/export credit to processors/exporters to cover the cost of such inputs required by farmers to cultivate such crops to promote export of agri products. The processor units would be able to effect bulk purchases of the inputs and supply the same to the farmers as per a pre-determined arrangement...The banks will have to ensure that the exporters have made the required arrangements with the farmers and overseas buyers in respect of crops to be purchased and products to be exported respectively. The financing banks will also appraise the projects in agri export zones and ensure that the tie-up arrangements are feasible and projects would take off within a reasonable period of time...The banks will have to monitor the end-use of funds, viz., distribution of the inputs by the exporters to the farmers for raising the crops as per arrangements made by the exporter/main processor units...The banks will have to ensure that the final products are exported by the processors/exporters as per the terms and conditions of the sanction in order to liquidate the pre-shipment credit as per extant instructions..."

that forward looking schemes such as those meant for precision farming and hi-tech agriculture (Vyas 2004, 8,39,42), processing and export-oriented farming merit consideration as they add value to agriculture and help meet emerging opportunities. The report is consistent with the World Development Report – 2008, agenda of calling for more investment in agriculture by donors (private/corporate capital) and national governments (public).

Figure 4.3 shows that the Indian State is offering an 'enabling environment' to the agribusiness corporates, literally, on a platter ³⁰. The infrastructural reforms like the amendments in APMC act, followed by the creation of mega food park, agriculture export zones, reforms

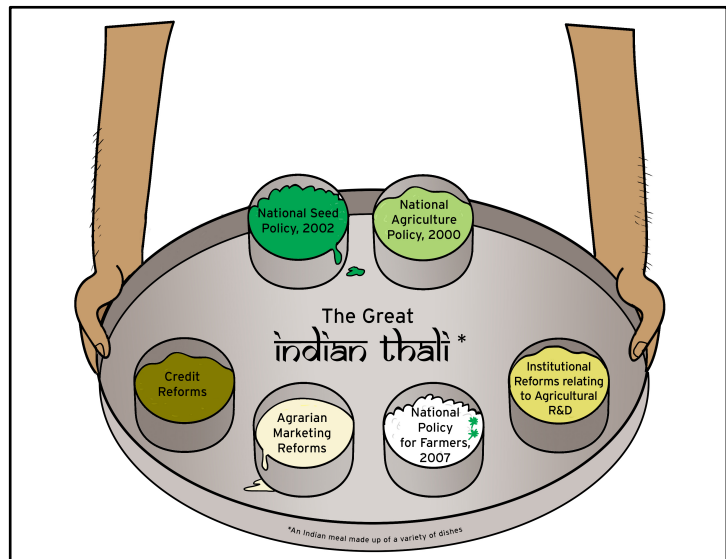


Figure 4.3 - Indian State offers enabling Environment to the agribusiness corporations to facilitate CF. (C) Ritika Shrimali

in banking sectors etc are examples of the changes State is introducing to facilitate capital

³⁰ Vijoo Krishnan, joint secretary of the *Kisan Sabha*, uses the word 'platter' in a different manner. He is of the opinion that the farmer bound up in a contract is an eventual loser. Krishnan fails to see the class character of the contract farmer in Punjab and in other places. He further argues that CF is actually an act of deception at granting vast areas of fertile land on platter to agribusiness corporations. This is not true. As I have shown in this piece of work, agribusiness corporations do not have to be given any parcel of land, in order to undertake contract farming production. As a matter of fact, the agribusiness corporations avoid taking land for contract farming purposes. For more details, read - Rajalakshmi, 2013

accumulation for corporations. Policies such as NAP etc have a systematic bias in favor of propertied groups.

(3) Institutions for Agriculture R&D

Questions around agriculture research institutions and changes therein, pertain to the level of their interaction with technology. Currently, there are four kinds of technologies in the field of agriculture - (i) biotechnology (Bt seeds and GMOs), (ii) hybrid seeds (iii) technologies related to improved crop and resource management methods based on system approach (integrated crop management, precision farming, etc.) and (iv) value-added inputs such as biofertilizers, treated seed for tolerance to biotic stresses or nutrient supply) (Pal et al. 2003, 13). Since 2010, the Indian agricultural R&D has started drawing significant strength from International Agricultural Research Centers (IARCs). These organisational developments have implications on the institutions governing them and the management of technologies. The most significant is the protection of intellectual property by the private sector (Pal et al. 2003, 15). To this effect, the government has liberalised the entry of the private corporations, including multinationals, in agricultural R&D, and also passed recently acts like the Plant Varieties Protection and Farmers' Rights Act (2001) and the Patents (Amendment) Act (1999). These acts primarily aim to provide incentives to the corporations by bringing the domestic IPR regime at par with the international regime envisaged under the WTO (Pal et al. 2003, 15).

Indian Council of Agricultural Research (ICAR), the State Agricultural

Universities (SAUs), and various other government and higher-education agencies are responsible for the bulk of agriculture research in India (Beintema et al. 2008). However, the Indian state is withdrawing from publicly funded agriculture research projects. Since 2005, India opened its public sector agriculture research sector to U.S. corporations enabling them to "help identify research areas" that have the potential for "rapid commercialisation" with the intention of developing new and commercially viable technologies for agricultural advancement in both countries (Parsai 2005). This partnership has been described as a key feature of the U.S.-India Knowledge Initiative on Agricultural (KIA) Education, Research, Service and Commercial Linkages (Parsai 2005). Large American multinational corporations (MNCs) like Monsanto and Archer Daniels Midland Co. are on the KIA board. It is impossible to imagine that they will not drive as many changes as possible that would suit their business interests - a.k.a. - sell more agri-inputs. (Analytical Monthly Review 2010).

At this point it is important to discuss the concentration of R&D by six corporations. It is important to examine the combined power and influence of the big six because these corporations are not just competitors – *they are also collaborators* – in tightly concentrated markets. As per a new report (Shand 2012) six corporations overwhelmingly dominate global R&D for seeds and pesticides - accounting for over 76% of total private sector agricultural R&D spending in the seed sector and the same share (76%) in the agrochemical sector in 2010. These corporations devote on average at least 70% of all seed and crop R&D in pursuit of biotech and genetic engineering. They

collectively spent \$2.2 billion per year on average on crop breeding and biotechnology R&D, from 2007-2010.

Table 4.3: Research and Development Concentration by Six Corporations

Big 6 Corporations	Percentage (estimated) of crop R&D devoted to biotech	Total Agriculture R&D in US \$Millions
Monsanto	80	1705
Dupont	50	874
Syngenta	15	1032
Bayer	85	955
Dow	85	NA
BASF	100	720
BIG 6 TOTAL	70%	4785

Source: Shand (2012)

The table above shows the concentration of research and development by six corporations. Between the six corporations, 70% of their research and development costs are devoted exclusively to biotechnology. This has implications specifically for agriculture sector, and in the context of this thesis - implications for CF.

The point of contention emerges when issues related to knowledge production are geared to cater to the needs of the markets, then the research and development tends to align itself to the ideology of ruling class. In the case of India, it is being ensured that these issues find their way in India's Research and Development priorities as well. In another instance, a joint research project between NCAER and Australian Centre for International Agricultural Research argues that until domestic reforms in India do not

complement the changes made in the international arena, no change in agriculture growth should be expected. The project highlights that India's agriculture policy needs to change its focus from self-sufficiency and food security to market oriented production. Interestingly, this policy suggestion from the research is contrary to the agenda laid out by NAP- as already discussed. The joint project further advocates for putting a stop to the external stimulus of government subsidies and in turn piling up grain stocks, instead offocusing its attention to 'untapped potential sectoral growth' (Chadha and Davenport 2011, 38), such as chicken and meat production, that might be associated with reforms of India's food grain industries. The argument that emerges out of this report is that the policy reforms need to be de-coupled from the government assistance and that reforms should be re-positioned to support market-based production decisions, such as through farm-level adjustment assistance and providing regional infrastructure.

In a field interview with a farmer who grows vegetables and sells them to big retail corporations, the plight of agriculture research becomes apparent. He says :

“...We have 60-70 yr old Punjab Agriculture University in Ludhiana.. So far they have not been able to prepare any new vegetable seeds. They only have seeds for wheat and rice. All seeds that we have in India are coming from outside – America, Israel etc. We are buying cucumber seeds from Semenís (American Corporation)– for 9000-15000/kg . If we prepare the seed in India, – it can be made in rs 2000/kg. They are not doing any research. Why do we have to buy expensive seeds every time?...” (Hamid, Contract Farmer, 2009)

Hamid makes a sharp observation. He makes a subtle critical comment on the sad and pitiful state of agriculture research in India. His comment also brings into focus the

growing encouragement being given to agri-input monopoly corporations and the increase in the cost of production for the farmer. With the decline in funds to facilitate public research and direct private intervention in research, it is no doubt that the focus of the research outcome and other such endeavours would be meant to benefit the vanguards of agribusiness. CF is just one of the ways through which investment of corporate capital in agriculture can be consolidated.

Section 4.5 Going “Inside” the State: Deconstructing the Myth of State Neutrality

"...The executive of the modern state is but a committee for managing the common affairs of the whole bourgeoisie..." (Marx and Engels, *The Communist Manifesto*, 1967, 82)

There is a division of labour between the state's personnel and the proprietary classes (Richards, 2001,75). Such linkages are the empirical basis of how Marx saw the state being the executive committee of the bourgeoisie. In this section, I argue that the state and business elites are the bearers of capitalist social relations and aid in the process of capital accumulation. I will discuss at length how agencies of capital (e.g. various business associations such as FICCI³¹, CII³², ASSOCHAM³³, etc.) interact with the state

³¹ FICCI - Federation of Indian Chambers of Commerce and Industry is a trade and Industry associations of business. FICCI works as a lobbyist and influences the policy decisions of the State by keeping the interests of the businesses in forefront.

³² The Confederation of Indian Industry (CII) Punjab CII (at the regional level) (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

in order to promote CF. I will lay out the nature of demands capital makes of the state and highlight the reasons for why this is done.

(1) Capital-State Interaction

As mentioned earlier, India is targeting a 4% growth rate in agriculture production for the XII Five Year Plan (PTI 2013a). This growth rate is said to be attainable provided that various state agencies and private players come together. For instance, the secretary general of ASSOCHAM, opines that CF by private corporate sector, adoption of profitable crop technologies and protection of bio-diversity are crucial to develop agriculture infrastructure and propel economic growth in the country. To this end, two important tasks need to be completed – one each by the state and the corporate capitalists. He states in a press release:

“...[it is required that the state] removes bottlenecks in production and distribution for items like fruits and vegetables, milk, poultry and fish...[Further] state governments [need to] review and enforce a reformed Agriculture Produce Marketing Act...[On the other hand], the corporate sector needs to assist in flow of credit at concession rates for private partnership to develop competitive environment...” (Secretary general, ASSOCHAM, PTI, 2013. Brackets inserted)

³³ The Associated Chambers of Commerce and Industry of India (ASSOCHAM) is one of the apex trade associations of India. The organisation represents the interests of trade and commerce in India, and acts as an interface between industry, government and other relevant stakeholders on policy issues and initiatives. The goal of this organization is to promote both domestic and international trade and reduce trade barriers while fostering conducive environment for the growth of trade and industry of India.

This quote by the ASSOCHAM secretary general shows that capital is clear with the 'division of work'. It directs the state to take certain actions that will be beneficial to the capital in general, and of course, specific agri-business capitalize in particular. Further, reforms in the APMC Act that would accommodate CF and direct buying of agriculture produce by the private corporation from farmer have been on the priority list of all the major institutions. To this end, FICCI played a significant role (*Interviewee, FICCI, 2009*). For instance, they organised and conducted various seminars and conferences with the state officials to make them aware of the needs of agriculture in general and food industry in particular. Through these measures it ensured 25 states and union territories adopt the suggested APMC amendments as on the line of suggested Model Act. The aim of these amendments has been to link Indian agriculture farms with international dining tables. To add to this, my interviewee said:

“...We produce a lot of potatoes in India but we never had potatoes fit for making French fries. For instance, McDonalds has been importing french fry potato varieties to India. That is ridiculous. We have to have potatoes that can be used for corporations here. And deliver the requisite package of practices to the farmer. McKain Food is also playing a major role in this by growing 'chip' quality or 'fry' quality potatoes through contract farming. At FICCI, our job is to offer our expertise to the government and make conditions that are suitable for these corporations...” (*Interviewee, FICCI, 2009*).

This quote sums up the agenda for the institutions of the state, an agenda that is set up by associations of big business and farmers working on behalf of the corporate capital and farmer associations, like the Jallandhar Potato Farmers Association. On the other hand, the agenda of CII has been to continue its advocacy on key reforms including strengthening legislation around CF; de-notification of fruits, vegetables, and other perishables from the APMC list (CII, 2012).

In another fieldwork interview, the CEO of the SCS Consulting Marketing Firm proposed a clearer division of labour between the state and corporation. He emphatically argued that:

“...it is not the mandate of the corporate houses to build infrastructure for agriculture. The corporate houses will not build irrigation infrastructure. It is the role of the State to create macro-systems such as Agri-export zones and Mega food parks (interviewee, SCS Consulting Marketing Firm, 2009)

The above quote shows how capital can dictate what the state should do in order to create conditions that can facilitate environment that is conducive to CF. The director general of CII – Mr. Chandrajit Banerjee made similar policy suggestions³⁴ for the Indian State - in a media release. He said:

³⁴ Further, the policy suggestions included (i) exemption of perishables such as fruits, vegetables, fishery produce, etc from the provisions of the APMC Act to give farmers the freedom to sell according to choice. (ii) Inclusion of all advances to the agriculture and food processing industry under the category of Direct Agri Priority Sector Lending (PSL), without any limitation on the size of investment on plant and machinery. (iii) The Budget should allocate funds for the establishment of Seed Banks at regional and local levels, Farm Equipment Banks at least one in each district, and Centers of Excellence in every fruit or vegetable cluster in PPP mode. (iv) 10 year tax holiday benefit under section 80 I(A) to the agri and food retail sector will help address the spiralling food inflation levels. (v) The definition of infrastructure should

“...Today, large-scale investments continue to remain minimal in the agriculture sector due to a the many regulatory and policy constraints in the agriculture sector that are acting as disincentives for corporate investments in modern farming techniques...there is a need to make changes in the existing policies to accommodate more private players in agriculture sector...”(CII, 2012).

These are the ways by which the agency of capital becomes more apparent. In an inaugural exhibition of Foodpro 2011, Mr Piruz Khambatta, Chairman, CII National Committee on Food Processing and Chairman & Managing Director, Rasna (P) Limited, urged the government to make the food sector eligible to avail priority sector lending from banks; give the cold chain industry the infrastructure status and exempt food processing industry from APMC Act, while promoting cold chain and R&D centres under Public Private Partnership model. He suggested that the state and central governments can partner with the food processing industry and offer processed foods to school students through the mid-day meal programmes. This would reduce food waste and enhance nutritional profile of the students. Mr Khambatta pointed out that integrating the food processing sector with agriculture is the only way to build a strong rural India (CIIa, 2011). Such demands from institutions like CII, only reiterate the fact that indeed

be extended to include rural and agri infrastructure like farm collection and processing centers, rural training centers, agri clinics, water harvesting facilities, green houses etc. (vi)There is a need to create a Development Fund on the lines of sugar development fund to give a boost to research, processing, storage/infrastructure projects in the agriculture and food sector. (vii) In order to encourage mechanization under the new GST, tractors should continue to enjoy the exemption from CGST (Excise Duty) and the SGST (VAT) should be levied at concessional rate of 4%.

capital has an agency which manifests itself through these institutions. According to another press release, CII proposed that:

“... it is time to move the policy from ‘Rupees per Kilo’ to ‘Rupees per Acre’.

The policy framework should encourage farmers to move towards greater use of farm equipment which will lead to higher agricultural productivity and thus higher farm incomes and crop yields...” (CIIb, 2011)

What does this really mean? What does greater use of farm equipment imply? Where are the small and marginal farmers who cannot afford use of the farm equipments expected to go? Such references make the capital bias of these institutions apparent.

FICCI is also complicit in demanding tax concessions and waivers for the food processing sector³⁵ from the Indian State. They argue that such steps are needed to ease the entry of corporates into areas like CF, post-harvest management, warehousing and development of cold chains.

"The excise duty on the refrigeration machinery components and material handling equipment (used in the food processing sector) should be totally waived... cost subsidies should be extended to all cold chain projects...Investments in physical infrastructure by the private sector in agriculture and the entire agri-value chain should be given 100 per cent tax holiday for a period of at least 10 years...” (PTI, 2010).

³⁵ FICCI laid down its set of recommendations to the Indian State to stimulate the growth of food processing sector. For more details on the 16 point programme, refer - <http://www.punebds.com/result.asp?id=430>

In an interesting data provided by P.Sainath from successive union budget speeches, it becomes clear how the Central government has been exempting the Corporates from paying taxes.

Table 4.4 : Exemption of Corporations from paying taxes in successive Union budgets

	2005-06	2007-08	2010-11	2011-12	Total Revenue foregone 2005	% Increase 2011-12 over 2005-06
Corporate IT	34618	62199	57912	51292	395878	48.17
Excise Duty	66760	87468	192227	212167	955726	217.81
Customs Duty	127730	153593	172740	223653	1222438	75.1
Grand Total	229108	303260	422879	487112	2574042	112.61

Source: P. Sainath (The Hindu, 2012)

http://www.thehindu.com/multimedia/archive/01024/Sainath-graphic_1024921a.pdf

Further, not only does capital make demands from the state, it also offers advice and help to make provinces more 'market friendly'. For instance, FICCI offered to work with the state government of Karnataka and help polish 'Brand Karnataka' - internationally (Bureau, 2004). Accordingly, FICCI identified key sectors that could be energised and put back on the growth path. Among them were agriculture and agro food-processing, power, roads, ports and airports and general infrastructure; knowledge based industries such as infotech and biotechnology, tourism, textiles and SMEs. The agenda was to revitalise Karnataka's various policies and make them attractive for domestic and

international investors. The effort paid off. Karnataka is one of the top three states to have attracted maximum investment by corporate-capital in agriculture.

The state also has an agency and tries to influence capital to take on its partial-responsibility. For instance, delivering the Inaugural Address at the Conference on “Emerging Technologies in Food Processing Sector” at Foodpro 2011, the ninth edition of CII’s flagship food industry event, the governor of Tamil Nadu, Dr. Rosaiah asked the CII to invest more in agro-processing industries. He said

“...identify and segregate industries that could absorb R&D inputs and promote technology-driven enterprises in the food processing sector...If agriculture sector has to grow at a faster pace there should be steady fast growth in the food processing industry...provide appropriate recommendations for greater production, exports and CF...” (CIIc, 2011)

(2) Interaction between different provincial (state) governments

Not only does capital make demands of the state, at times, different states interact and make demands of each other as well. For instance, to promote CF, the minister of Food Processing industry, Mr. Subodh Kant Sahay (PTI 2010) urged the Indian states to amend their respective APMC Acts. He said:

“...APMC Act needs to be amended to encourage contract, cooperative and market-oriented contract farming for more productivity and food security...”
(Minister of Food Processing industry, Mr. Subodh Kant Sahai, PTI 2010).

Being familiar with the different (left-leaning) political ideologies of some of the Indian provinces, Mr. Sahai urged the West Bengal government to be adaptive to change in general and more accommodative of CF. He went on to say:

“...The [West Bengal] State government should change its attitude on the issue and give up its hypocrisy on CF...CF is a means to promote food processing activity which, blessed with so many incentives from the Centre, holds out a big promise particularly in West Bengal...Pepsi is waiting to do CF of potatoes in WB...The call for second Green Revolution given by the UPA Government would remain a distant dream unless a linkage was established between farming and industry...” concluded the Minister of food-processing Industry.

The quote above shows how an important Minister of Food Processing Industry concerned with agriculture related activities is convinced that CF is the future of Indian agriculture. He also brings out the subtle reason for why CF needs to be promoted. So the end result is not farming as such, but growth of food processing industries. Further, by pointing fingers towards individual states, he is trying to put more pressure on the government there to change its policies. Significantly, such a major policy shift was being proclaimed in West Bengal that had been under a “Left” government for several decades. Perhaps their strict labour laws and the inherent ideology of being anti-capital and pro-farmer is dampening the spirits of the corporations. As many CF corporations are waiting to tap into the resources of West Bengal, Mr. Sahai's plea to the West Bengal State needs to be seen a request made on behalf of the capital by the agri-business capital.

In the contemporary capitalist social formation, institutions such as FICCI, CII, ASSOCHAM etc. help in the reproduction of bourgeoisie/dominant ideologies. Much of the rhetoric around planning and policy decision comes from these state elites. This is affected through the various institutions/apparatuses, development strategies, etc. to which these state elites/intellectual contribute. They are the true bearers of the system. The various state apparatuses fulfil the ideological conditions that are required for capital accumulation. Even in its decision about spatial and temporal distribution of ventures of capital accumulation it is guided by, perhaps even egged by the so-called non-state players. The state is neither a passive onlooker nor even neutral. It is an interventionist state.

Section 4.6 Conclusion

The objective of this chapter is to shed light on the class character of the Indian State as manifested in the rural countryside through CF. Increasingly, such policy choices and regulatory frameworks are being adopted that are governed more by the needs of the agribusiness corporations than national development priorities, i.e. policy-making in the interest of the vast majority of the population. I first lay out the change in priorities in the goals and objectives of India's planning commission towards the agriculture sector since independence as documented in the National Five Year Plans. I show how the focus for agriculture has been shifted from food self sufficiency towards production of food for export purposes and argue that the priorities of the Indian State as laid out in the National Five Year Plans are changing towards involvement of more agri-corporations in

'developing' Indian Agriculture. In other words, the National Five year Plans indicate towards corporatisation of Indian agriculture. Subsequently, using the case of three policies I show the various ways through which the Indian state attempts to create a 'market friendly' environment for the agri-corporations. For instance, the New Agriculture Policy advocates for adequate and timely supply of 'agri-inputs for the farmers'. This paternalistic attitude of the State gives an impression that the State cares about its farmers. However, statements such as these serve the ideological requirement of the state while in effect trying to make way for the agri-input monopoly seed corporations to play in the Indian market, while appearing to be farmer-friendly. The problem with this is not entirely that the agribusiness capitalist class is a beneficiary of state policies, but more importantly, it also has control over the means of production, associated with agricultural production and trade. Increasing control over means of production necessarily implies horizontal integration - which refers to expansion in the same stage of the same commodity sector (Heffernan 2000, 66). This helps the corporations to exercise economic power in many of the local markets. Further on, the National Seed Policy Act makes a case for seed corporations to sell Bt. and hybrid seeds to flood the Indian market making agriculture completely dependent on agri-corporations. Seeds used to be part of common property resource (Shiva 2012). However it has increasingly become a means of production that is controlled by a few seed giants. In fact, seed in itself has become a commodity (Shiva 2012). Finally, the National policy for farmers focuses on creating a new 'breed' of future farmers who would like to work with corporate players in the agri

industry and not necessarily deal with the middlemen (small-scale traders) and local agriculture *mandi*. In all these policies there are specific references towards CF, but really the idea is to encourage more corporate players in the 'farm to fork' value chain.

In the second section I discuss specific institutional reforms that have been made to promote CF as a model of agribusiness development. For instance, agrarian market reforms now accommodate private players in selling and buying of agricultural produce. The amendments in the Marketing Act have also incorporated CF to include corporations who would prefer to deal directly with the farmer. Further, reforms in the banking sector have enabled the transfer of funds to agribusiness corporations in the name of 'agriculture development'. When the State channelizes its subsidies and other funds towards corporations, then theoretically they have less money for irrigation, seeds, fertiliser subsidies for small peasants. There is a clear class bias in the way the State operates. Towards the end of this section, I also discuss how changes are also being introduced in the way agriculture research and development is being carried out in Indian Agriculture Research Organisations. In this section I highlight the growing concentration of six corporations in the research and development of agriculture and how various partnerships with Indian Research organisations are being encouraged to align themselves with the interests of the corporations.

In the third section I go 'inside the state' and argue that it is the bourgeoisie – or its fractions, which are connected to farming -- that shapes policies of the state. I show how

state officials operate, more or less, as agents of capitalist development, creating conditions that enable big business capital to penetrate Indian agriculture.

A pertinent question to ask here is what are the structural affinities between corporations geared towards profit and states geared towards 4% growth rate. Currently the growth rate of Indian agriculture is abysmally low at 2% in Agriculture?³⁶ Whereas, it is easy to guess why corporations need to earn profits, it becomes a lot more interesting to figure out why do States need to show a (high) growth rate? The Neoliberal Indian State is facing a legitimization crisis (Das, 2009, 428). First, from a standpoint of rural population - small and medium farmers are losing their land and joining the ever burgeoning proletariat class. Agriculture is becoming an unviable option for the peasants. And further on in general, there is a mass exodus of labourers from villages towards the cities. The legitimization crisis arises from the failure of the state to fulfill its development role – to act as a ‘developmental state’ (Das 2009, 429). As a pre-emptive response to class struggle in the third world countryside (Das 2001, 168), the Indian State wants to project itself as a job-creating, fast growing economy - even in the rural areas. CF coupled with NREGA schemes help the state to pacify the rural population.

³⁶ Mukherjee-Reed 2003, 2 - raises similar question in context of Indian state and its increasing defense budget in the context of increasing foreign participation in military contracts.

Chapter 5

Rhetoric of Technology in Contract Farming & its Class Implications

5.1 Introduction

Agriculture in India, as in many other parts of the less developed world, is associated with the relative absence of technological change. One of the justifications for promoting contract farming is that it will promote the use of modern technology in agriculture. This chapter examines the relation between CF and technological change in three sections. In the first section I discuss the kind of technologies that are being introduced by agri-input corporations who supply these inputs to farmers including contract farmers. In the second section I discuss the social character of CF technologies and argue that even though CF accounts for a small part of the total production of Agriculture Inputs, yet the market for these technologies has been expanding for a decade. I argue that the expansion of technologies benefits agri-input corporations, and that these technologies have a class character. I show the implications of class character by outlining two issues: (i) Expensive agri-input machineries and implements are meant for large peasants such as contract farmers (ii) Expensive and efficient micro-irrigation system yields more profit to contract farmers. In the third section I discuss the

implication of CF led technological changes for Food Sovereignty in India. I follow this section with a conclusion.

Section 5.2 Technology in Itself

In contract farming specific kinds of equipment are required to prepare soil beds, to monitor water discharge, to measure the saline content of soil, for chemical spraying, etc. Various types of biochemical implements such as seeds, chemical sprays, fungicides, weedicides are also needed to manage the new crops. Commenting on the increase in the use of equipment in CF, a few contract farmers who contract for 4-5 different corporations echoed similar sentiments during group discussion:

“...We have to use a **lot** [emphasised during interview] of equipment. And most equipment are specific to crops – so you cannot use it for another crop. So one separate tractor for potato, then grower, and then polar, then other equipment are also needed. Diesel consumption has increased. Then one has to plough the field 3-4 times, which means, a lot more expenditure on diesel. Other crop-fields take 1-2 days to get ready. Potato fields take weeks to get ready...” (Interviewees in Focus Group Discussions with Contract Farmers 2009)

The quote above is a precursor to show that use of different kinds of technologies used specifically in CF operations. I have divided the discussion on technology in itself in three components. I will first discuss the range of mechanical equipment that are being used on contract farms. I will then discuss the biochemical input on the farms and finally I will discuss the use of micro-irrigation systems of contract farms.

1. Mechanical Implements:

In Punjab, PepsiCo uses some specialised implements such as deep chiseller (Plate 5.1), bed maker (Plate 5.2) to encourage more CF operations. For instance, PepsiCo sourced the Plastic Mulch Groundnut (PMG) technology (Plate 5.3) from China for its groundnut farming in Punjab. Here, polythene mulch is used to raise the temperature of the soil in February, thereby advancing germination by 15 days, and helps in harvesting the crop before monsoon. Plate 5.4 shows modified chili transplanter. It is used in nursery for making ridges and grooves on the bed top for maintaining uniform depth and spacing of seeds on nursery beds. It transplants precisely on the beds, applies the fertilizer on both sides of the planting row and also sprays weedicide simultaneously before planting. These new agriculture implements are kept in Pepsi's R&D facilities.

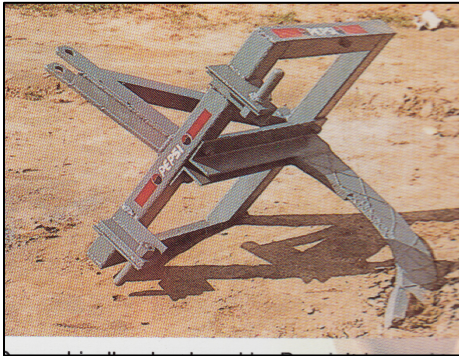


Plate 5.1 Deep Chiseler developed by PepsiCo. It is used to sharpen the hard pan formed at 8-9" depth of soil due to shallow tillage resulting in compaction of lower solid zone. (C) PepsiCo Publicity Brochure, 2007.

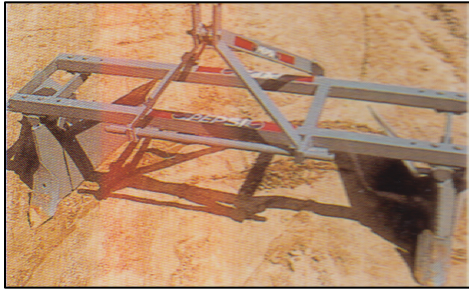


Plate 5.2: Bed Maker - developed by PepsiCo. It ensures uniform raised bed formation for cultivation of chilli and for nursery raising of vegetable crops (c) Brochure, PepsiCo. Publicity Material, 2007



Plate 5.3 : Pepsi's Plastic Mulch Technology for groundnuts. Plastic Sheets roll out of the machine and cover the seeds. (C) Brouchure, PepsiCo, 2007



Plate 5.4: Modified Chili Transplanter.

An important cropping technique being increasingly used in contract farming is to grow crops in wide rows³⁷. The tacit purpose is to use herbicides to control weeds in the inter-row space of the crop. Band spraying over the crop row allows selective herbicides

³⁷ Wide Row crop rows are 50 cm wider.

to control weeds that the shielded sprayer or inter-row cultivation techniques cannot reach. Plate 5.8 shows a power tiller that was being sold in the Agri-Tech *mela* in 2009 in Punjab, India. This tiller was attracting the attention of the farmers since it also helps in band spraying that effectively reduces the total amount of herbicide used on a per hectare basis, which in turn reduces costs for a farmer.

During my fieldwork, I met a couple of contract farmers who used to grow garlic on contract. They grew garlic in wide rows (see plate 5.7), as weeding is important because garlic does not like competition. A wide row is also ideal for growing leaf and small root crops. These rows are about 1 foot wide and allow for intensive planting. Intensive cropping helps in placing multiple crops in the same bed and this helps in growing more crops in one bed saving on space and labour and increasing yield.

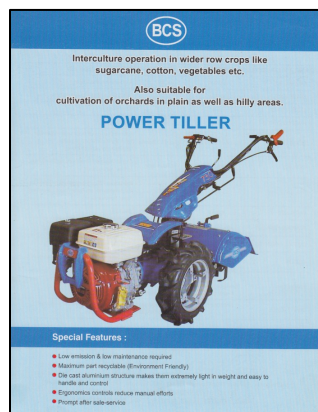


Plate 5.5: Power Tiller to prepare wide rows in fields. Publicity Material in AgriTech Mela, 2009



Plate 5.6: Potato wide row farming on contract farms in Punjab for PepsiCo, 2009. (c) Ritika Shrimali.

These wide rows are used for furrow irrigation meant to reduce the impact of water erosion in periods of excessive rain. (Brochure, PepsiCo, 2007)



Plate 5.7: Next Gen Contract Farmers in front of their Garlic field, 2007 (C) Ritika Shrimali

Use of tractors for agriculture in India is not a recent phenomenon. Now, more specialised tractors from agribusiness corporations such as John Deere³⁸ are also finding a market in India. Plate 5.8 shows the range of tractors that are being made available for

³⁸ John Deere is the world's leading manufacturer of agricultural and forestry equipment by revenue. Deere's products include harvesters, excavators, loaders, industrial sprayers, and utility vehicles. Approximately 50% of Deere's revenue comes from sales of agricultural equipment. Consequently, much of Deere's success hinges upon the success of the agriculture industry and corn prices³⁸. Cognizant of an increasing global population and a declining rural workforce, John Deere is working towards generating half of its total revenues from outside North America by 2018. (John Deere Website)

farmers in Punjab. Four-Wheel Drive , Row Crop, Speciality, Track, Utility, Compact utility and Family sub-compact tractors are few of the many products that are being shown in the brochure. All these various attachments that can be used with tractors point towards the precise nature of farming that is getting introduced. In fact, CF is also known as precision farming because it requires that the crop be grown under measured and precise conditions - unlike the cultivation of wheat and paddy where usage of chemicals, water etc. was done on 'estimation' and 'personal assessment'. There are five main elements of precision farming - Software/Hardware, GPS, GIS, Remote Sensing and Application Control (Tripathi et al. 2012). In general, the use of precision equipment significantly help in 'precise' farming techniques, aim to reduce wastage of labour and resource. For instance, water, fertilizer and pesticides are provided to seeds in a measured form to match varying growth stage of each crop on the field. The purpose of using precision equipment is thus to optimise the usage of agri-inputs to facilitate optimal output.

On the contract farms I studied, one of the five elements of precision farming – application control- was being followed with great care. 'Application Control' refers to precise application of agricultural inputs based on soil, weather and crop requirement to maximize sustainable productivity, quality and profitability. Plate 5.9, shows the precision equipment to conserve water. Plate 5.10 is of a temperature monitor. It helps to monitor those crops that tend to perish faster with change in temperature. This monitor is specifically useful for post-harvest care in storage facilities. Plate 5.11 and 5.12 show the

fertigation equipment at Bharti's FieldFresh Farm in Ladowal, Ludhiana. Here, labour just has to fill the containers with chemicals. The computerised machine shown in the plate 5.11 has been fed with all the relevant information about what chemical has to be released for which crop, at what time and in what quantity. It should be noted that the contract farmers are not yet using such equipment. Bharti's FieldFresh Farm is a "test lab" to experiment with different crops and equipment. Punjab Government has given the land to Bharti for a period of 99 years on lease.



Plate 5.8: Publicity Brochure of John Deere Tractors (Source: Publicity Material of John Deere at Agri-Tech Mela, 2009)

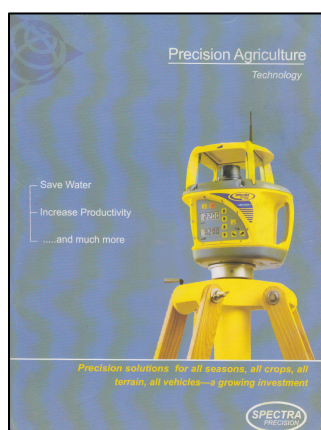


Plate 5.9: Precision Equipment to conserve water and increase productivity (Source: Publicity Material of Spectra Precision at Agri-Tech Mela, 2009)



Plate 5.10: Stationary Temperature Monitor to improve quality of temperature-sensitive perishables with continuous stationary monitoring (Source: Publicity Material of Sensitech Cold Chain visibility - a carrier corp. corporation at Agri-Tech Mela, 2009.



Plate 5.11: Fertigation and Chemigation Equipment Room at Bharti's FieldFresh Farm in Ladowal, Punjab, 2009 (c) Ritika Shrimali



Plate 5.12: Fertigation and Chemigation Room in Bharti's FieldFresh Farm in Ladowal, Punjab, 2009 (same room as 5.12 - different shot) (c) Ritika Shrimali



Plate 5.13: Board outside the greenhouse at Bharti FieldFresh's farm in Ladowal, Punjab. This board shows the specific seed variety that Bharti uses to grow baby corn.
(c) Ritika Shrimali

(ii) Hybrid Seeds and Agro-Chemicals:

Syngenta, Monsanto, Cargill are a few of the seed giants that are operating in India currently. Most of the times, the contracting firms approach the seed giants and ask for specific kind of seeds. Only when seed corporations promise the desired results from seeds, then contracting arrangements are decided. Once the agro processing corporation is satisfied that seed x will yield y amount of quantity and z quality/ acre of land, only then seeds are sold to contract farmers. These seed varieties are specific to the needs of the corporations. So, for instance, Bharti Field Fresh grows (Plate 5.13) detassled baby corn (G-5414) prepared and used by Syngenta. This variety of baby corn is sought after for tender kernels, uniform size and colour. These seeds have very short maturation period (usually 10-12 weeks). This makes the cultivation multiple crops possible in a year. This has provided opportunities to the capitalist farmers to escape the obstacle of

production time that nature takes in agriculture operations. Further, the failure rate of seeds is lot less in these hybrid seeds - which makes the seed more profitable than the other seeds. A contract farmer responded -

“...Contract Farming gives us time and space to experiment with new crops and go beyond Paddy-Wheat rotation...currently we are growing baby corn (they mature in 80-90days), immediately after that we will grow beans (they mature in 55-60 days), then we grow chocolate mint (it also has early maturity) and then we will grown paddy-wheat again...” (Contract Farmer, Happy Singh, Machhewara, Punjab)

An important aspect of CF operations is the ability to grow multiple crops. This means that soil needs to be prepared for a new crop every 12-15 weeks for the next cycle of fast maturing seed. This helps the farmer in increasing the cropping intensity on his farm and gain financially. Based on his various ongoing contracts, my respondent provided me with his new cropping calendar (table 5.1), which now includes growing of four to five crops that have quick maturing time - as compared to with the two-crop routine of rice and paddy during the time of Green Revolution.

Table 5.1: Cropping calendar of farmers after adopting contract farming, 2009

	CROP SEASONS	NEW CROPPING CALENDAR
June	KHARIF SUMMER CROP SOWING	Baby corn (anytime between February-September - 60day maturation),
July	KHARIF SUMMER CROP SOWING	Potato, Baby corn (anytime between February-September - 60day maturation), French Beans (anytime between July-January - 40 day maturation), Bell Peppers (anytime between July-October-70-75 days maturation)
August	KHARIF SUMMER CROP SOWING	Potato, Baby corn (anytime between February-September - 60day maturation), French Beans (anytime between July-January - 40 day maturation), Bell Peppers (anytime between July-October-70-75 days maturation)
September	KHARIF SUMMER CROP SOWING	Potato, Baby corn (anytime between February-September - 60day maturation), French Beans (anytime between July-January - 40 day maturation), Bell Peppers (anytime between July-October-70-75 days maturation)
October	KHARIF SUMMER CROP SOWING	Potato, French Beans (anytime between July-January - 40 day maturation), Bell Peppers (anytime between July-October-70-75 days maturation)
November	RABI WINTER CROP SOWING	Potato, French Beans, (anytime between July-January - 40 day maturation), Mint
December	RABI WINTER CROP SOWING	Potato, French Beans (anytime between July-January - 40 day maturation), Mint
January	RABI WINTER CROP SOWING	Potato, French Beans (anytime between July-January - 40 day maturation), Mint
February	RABI WINTER CROP SOWING	Potato, Baby corn (anytime between February-September - 60day maturation), Mint
March	RABI WINTER CROP SOWING	Potato, Baby corn (anytime between February-September - 60day maturation), Mint

Source: Fieldwork Interview, Happy Singh, Contract Farmer, 2009.

The above table shows the multiple cropping patterns of contract farmers and increase in their cropping intensity. What makes the cultivation of multiple crops possible is the application of proper crop protection schedule. In a field interview, I was told:

"...To grow 'chip' quality potato and 'fries' variety potato, they require specific kind of plant protection schedule. This is where DuPont comes in. Once in the year 2006, an incidence of late blight occurred, threatening the potato productivity in Punjab region. DuPont provided services and solutions including DuPont TM Curzate M8®, a powerful, locally systemic fungicide that stops late blight post-infection and inhibits sporulation and spore viability...Now when Pepsi goes out for CF, they suggest this product to the farmer..." (Interviewee, Manager-Registration & Regulatory Affairs and National Market Development Manager at DuPont India 2010)

This quote shows that use of proper crop protection products assist the contract farmers to grow healthy crops. Proper crop care also raises their income substantially. Plate 5.14 is a pamphlet from United Phosphorus Limited Chemicals corporation advertising their products for farmers at the Agri-Tech *Mela* organised in Ludhiana, 2009.

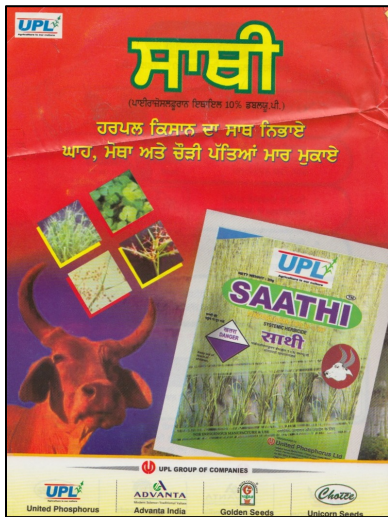


Plate 5.14: UPL Pamphlet



Plate 5.15: Use of Micro-Irrigation System on Bharti's FieldFresh Farm, Ladowal, Ludhiana, 2009. (c) Ritika Shrimali



Plate 5.16: Use of Micro-Irrigation System on Bharti FieldFresh Farm in Ladowali, Punjab, 2009 (C) Ritika Shrimlai

(iii) Micro-irrigation System: During my fieldwork, one of the contract farmers who had installed a micro-irrigation system, said:

“...Before we got this irrigation system, we used to use deep bore tube well. The water used to take hours to reach the other end and in fact, lot of it used to get wasted. Now, in 1 hour, 35 liters of water can be given to the plant roots...I use the system to irrigate 8 acres of my land...”(Contract Farmer, Simrat Pal Singh, Nakodar, Jalandhar, 2007.)

Using a micro-irrigation system on field ensures that there is minimal wastage of water since fields are not inundated with water as with tube well/bore well systems. Instead, water is given only to the roots. To popularise use of micro-irrigation system, the Central and Punjab State Governments together provide a subsidy of 75 per cent to farmers willing to set up drip or sprinkler systems under the Centre Sector Scheme of Micro Irrigation (CSSMI) (Chaba-Agnihotri 2011). Plates 5.15 and 5.16 show the laying out of irrigation system on the field in Bharti's FieldFresh Farm in Ludhiana.

Section 5.2: Social Character of CF Technologies

The use of CF technologies is benefitting input corporations and contract farmers. CF technologies thus have class implications. This section has two parts. First I discuss the increase in the use of such technologies. Then I discuss its class implications.

1. Profit making Agri-input Corporations

Since early 2000, the agri-input corporations in India have attained a bigger reach than earlier. That is, there is an increase in the number of these corporations; their net sales are on the rise, and their market share is increasing. I argue that CF also factors in while analysing the growing trend of the corporations. For instance, the market volume of tractor corporations is on the rise (Figure 5.1). The figure shows since 2002, more than 1 lakh customers have bought tractors from Mahindra and Mahindra. Mahindra is an Indian multinational automobile manufacturing corporation. It is one the top three tractor manufacturers in the World. New Holland and John Deere are a few of the recent foreign entrants in the Indian market. In 2013 (Press Release, 2013), the managing director of New Holland Fiat (India) Pvt. Ltd.; spoke about their expansion plans in Punjab in response to demand from Punjabi farmers and introduce more technology enabled tractors - such as GPS/GPRS and other things that would encourage farmers to monitor the performance of their tractors, improve control and improve productivity.

Figure 5.1 shows that the overall market volume of tractor corporations has been on the rise since 2002. Many argue that this increase is not only indicative of better purchasing power of the farmer or adequate credit availability driven by public and private banks which encourages farmers to invest in farm equipment or that in fact, the increase is led by seasonal scarcity of labour that is forcing farmers to look for alternative arrangements. I think that the increase in demand is also coming from contract farming

led new system of agrarian production that encourages farmers to use new technology enabled equipment that can increase productivity and their income.

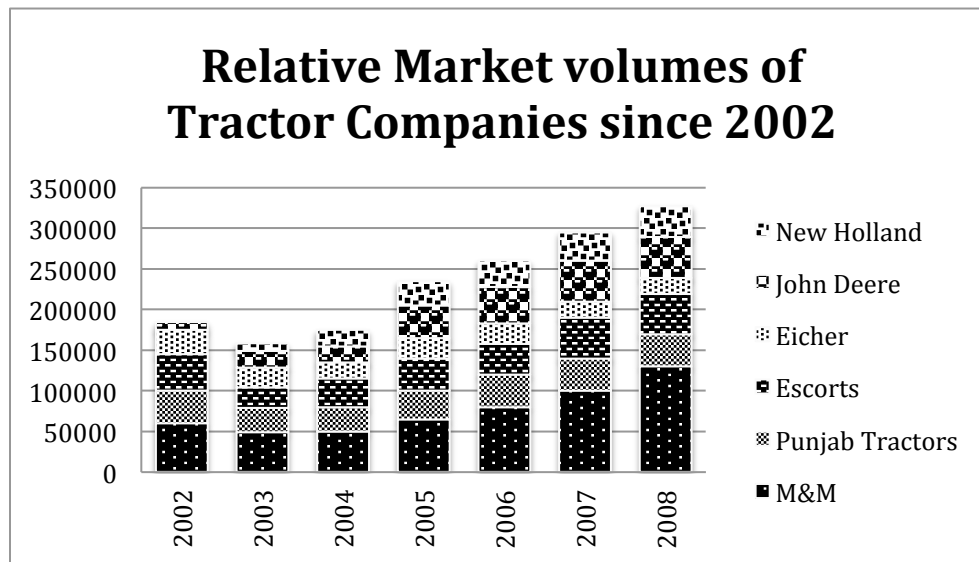


Figure 5.1 - Source: Agriculture Inputs in Rural India - Chaudhary, Dixit, and Chopra 2009. Original data from CMIE

Buying of tractors may increase a farmer's income, but what is certain is that selling of tractors will definitely increase revenue for the corporations.

Figure 5.2 shows the net sales (in million rupees) of major agri-chemical corporations in India. From April 2012 to April 2013, sale of almost each agri-chemical corporation has increased.

Figure 5.2 Net Sales (in crores) of Agro-Chemical Corporations in India, January 2014

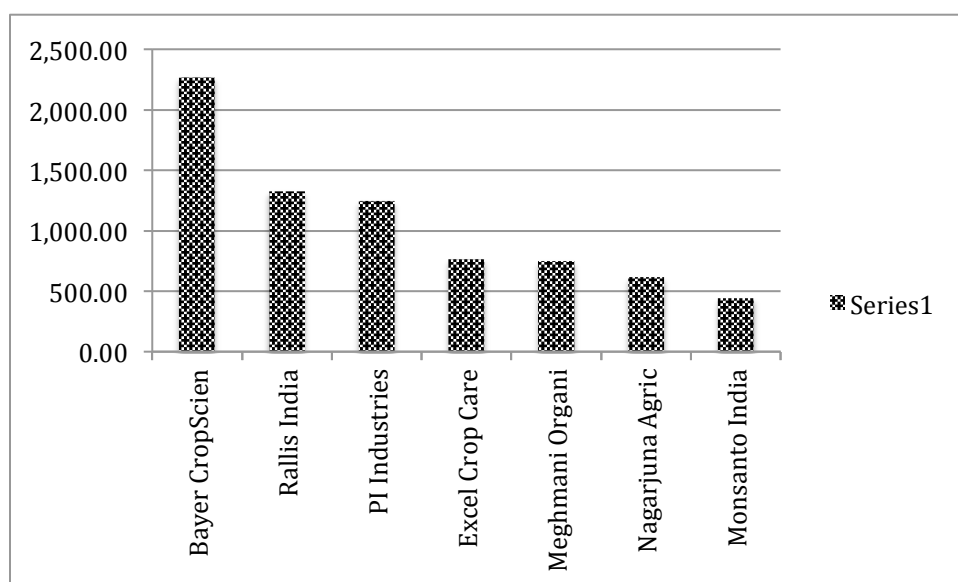


Figure 5.2 Source: Finance Website - <http://www.moneycontrol.com/stocks/top-corporations-in-india/net-sales-nse.html> (as accessed on 28 January 2014)

The figure above shows that Bayer CropSciences had the highest sales in January 2014 followed Rallis India. The wider penetration of agro-chemical corporations to the villages is also being facilitated by biochemical corporations' consortium in India, called Crop Life Asia. Crop Life is an association of 14 crop protection corporations and 6 multinational R&D corporations. Corporations such as Byer, DuPont, Rallis, Monsanto, Syngenta, and Sumitomo are part of this association. The purpose of their association is

to represent the interests of the corporations and influence in the creation of a policy framework that protects the intellectual property rights of technology innovators and reaches their potential market sooner! CF is one way through which the consortium aims to create brand recognition amidst the farmers and also potentially prevent local chemical manufacturers from selling non-patented/low-cost chemical products. (Excerpts from an interview with BASF, Thyagarajan, 2010).

As the chart indicates, contract farming is emerging as a conduit to increase the agri-input consumption by farmers.

2. Class character of Technology

The purpose of using technology for CF operations is to control the production process and avoid the general uncertainties associated with agriculture, such as: pest infestation, vagaries of weather, drought etc. Thus technology used in CF specific agrarian production is being used for delivering precise commodities from agriculture operations. However, it is a fact that only a few farmers who are getting involved with CF are able to access and use such technologies because of the inherent costs involved. For instance, the table 5.2 below shows the increasing trend in the cost of some of the agri-technologies/agricultural inputs since 2008.

Table 5.2 indicates, there has been a spurt in the prices of seeds, diesel, fertilisers, pesticides and power since 2008. In fact, the increase in major agricultural inputs in

2010-11 over 2009-10 in terms of Wholesale Price Index (WPI) show that cost of fertilisers increased by 8.2%, Electricity/Irrigation increased by 7.6%, Pesticides increased by 19%, tractors increased by 3.7% and diesel oil by 11.4% (Parliamentary Questions, Lok Sabha unstarred question no. 244, answered on 2 August 2011).

Table 5.2: Average wholesale prices for agricultural inputs since 2008

Annual Average (July-June)	Fertilizers	Electricity (Agriculture Use)	Pesticides	Non-Electrical Machinery	Tractors	Lubricants	Diesel (HSDO)	Oil
2011-12*	135.20	133.80	115.16	121.87	137.40	234.36	167.80	
2010-11	119.19	127.15	113.62	118.99	127.88	200.28	153.86	
2009-10	110.02	118.14	111.42	116.45	123.31	177.78	138.09	
2008-09	106.88	114.57	110.76	111.86	117.58	176.01	133.81	

Source: Parliamentary Questions – Lok Sabha unstarred question no. 3122, dated 24 april 2012 - <http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=119848>

The increase in the cost of agri-inputs is also associated with the increasing concentration of agri-input corporations in the world. For instance, in recent decades, the seed industry has experienced a faster rate of market concentration than any other farm input sector (Shand 2012). The world's six-largest seed/agrochemical/ biotech firms (BASF, Bayer, Dow Agrosiences, DuPont, Monsanto, Syngenta) have a dangerous chokehold on the global agricultural research agenda. Together, they account for almost \$50 billion per annum in sales of seeds, biotech traits and agrochemicals. They

spend about \$4.7 billion annually on agriculture R&D (Shand 2012). Next table 5.3 shows the top five Agriculture Input Corporations and their concentration in terms of the market share. The top five global corporations have a substantial presence in the Indian agri-input market as well (Field Work, 2009).

Table 5.3 Major suppliers of agricultural inputs and growing concentration in World

The Big Six	Crop Seed Sales /US Million dollars, 2009	% Global market share of seed sales, 2009	Agrochemical Sales/US Million \$	% Global Market Share of Agrochemical Sales, 2009
Monsanto	7795	27	4427	10
DuPont	4644	17	2403	5
Syngenta	2464	9	8491	19
Bayer	700	8	7544	17
Dow	635	7	3902	9
BASF	N.A	N.A	5007	11
BIG 6 TOTAL	15837	58	31744	71

Source: Hope Shand, The Big Six: A Profile of Corporate Power in Seeds, Agrochemicals and Biotech, The Heritage Farm Companion, Summer 2012

Table 5.3 helps in examining the combined control of the big six corporations in the agribusinesses. Five of the big six corporations that sell seeds control at least 58% of the proprietary seed market worldwide. Market concentration in the commercial vegetable seed sector is even higher: The top 4 corporations controlled 70% of the global market in 2007; the top 8 firms controlled 94% of the market (Shand, 11, 2012). Such concentration in the market gives the corporations complete control over production, distribution and circulation of the seeds and agrochemicals. And this I argue is the agenda

of CF - to control the entire value food chain in India. It is my agenda to argue that these technologies are not 'things.' They are part of the relationship of control by agri-corporations that have implications for the farmer and future of food.

Major implication of corporate control of agri-inputs and Contract Farming are twofold: (i) Only large peasants can access the agri-inputs and benefit and (ii) Specifically, micro-irrigation systems yield more profits to the contract farmers

1. Expensive agri-inputs are used exclusively by large peasants in CF

Small and marginal peasants cannot use the expensive technology that CF agrarian production requires, and therefore it cannot benefit them. Though the contract farmers benefit with technology propelled agrarian production that produces higher yields and more profits, it is also true that the benefits are unequally shared between classes. The very fact that the cost of agri-inputs is on the rise shows that only such farmers who have greater access to credit³⁹ and capital adopt it. During a field interview I was

³⁹ Small and marginal peasants cannot access the agri-inputs even when credit is available. Their reason to not get involved with CF now comes from their prior bitter experience of using green revolution technology which 'failed to deliver its promise to them (R. J. Das 2002, 55). What the small and marginal peasants cannot afford to do is take risks by buying expensive inputs on credit and experiment with new niche crops like gherkins, babycorn etc). After their bitter experience with the use of green revolution technology, many small scale non-contract farmers that I interviewed remarked -

"... getting into a debt trap is very easy in agriculture. We have to be cautious. Did you see the houses in this neighbourhood? They are half done since 1980s because we have been hoping for bumper crop that can give us enough money to plaster the remaining house...this *company wali kheti* is not for us" (Interviewee, Small-Scale Non-Contract Farmer, 2009)

The excerpt from the interview above shows that technology induced agriculture development via CF is not meant for small and marginal peasant in India. They did not benefit from Green Revolution and see no reason why system of agrarian production as introduced by CF will benefit them.

informed that some of the machines that are essential for growing contracted crops are so expensive that contracting corporations rent them out. In an interview with PepsiCo official:

“...These are very new implements and no farmer is willing to buy them. These machines are very specific to the crops we are contracting out. Each piece of machinery costs at least few lakhs of rupees to the corporation. Contract farmers prefer to use them on rent instead. We do not mind. Our philosophy is - let them use it, get comfortable and let them grow crops for us, that is all that we want right now. It is in our interest that they use these implements. We instruct them to grow tomato on raised beds. So machines help and farmers also see the benefits...” (Interviewee, Regional Manager, PepsiCo, Dec 2007)

The quote above shows that use of a machine is important for growing contracted crops. It also shows that doing CF involves huge investments. Though it is true that the official says that buying a machine is not a pre-requisite to do CF, but it also shows that there is an implicit assumption that once the farmers start seeing the benefits of these equipment then contract farmers would prefer to buy the machines instead. As of now, when farmers contract with a specific corporation such as PepsiCo - then the corporation itself provides them with the machines on rental basis. Depending on the type of machine being used - rent is usually between 100-200 rupees per day. This also adds to the fact that a few rich

and middle peasants can rent or buy such machines. There is an explicit class bias in use of technology for CF.

2. Expensive and efficient micro-irrigation system yields more profit to contract farmers

A study facilitated by FAO showed how micro irrigation systems were more profitable for contract farmers (Punjabi 2008, 5) than regular sources of water – canals and tube wells. In a detailed paper, Punjabi writes that Jain Irrigation Systems Limited (JISL)⁴⁰ began its contract farming⁴¹ operations for onions in Gujarat in 2001. An important aspect of contracting with JISL is that the corporation has made it necessary for all farmers working with them to have drip irrigation – which is usually sold by JISL itself. Table 5.4 shows that the gross margin for the farmers contracting with JISL and using the irrigation system is much higher than the margins for farmers who are not using

⁴⁰ JISL is a multinational organization based in Jalgaon district in the state of Maharashtra in India. The corporation manufactures a number of products, including drip and sprinkler irrigation systems and components, PVC, PE piping systems, plastic sheeting, greenhouses, bio-fertilizers, solar water-heating systems, and photovoltaic appliances.

⁴¹ Availability of inputs such as fertilizers and pesticides is not an issue with the farmers in that region. Onion seeds are provided by the corporation at a very subsidized rate. This planting material is of the specific variety of white onion (JV12) used for processing. An important feature of the planting material provided by the corporation is the high germination rate about 80-85%. JISL has a prescribed set of practices for its contract farmers, specifying the fertilizer requirements and spraying time. Also, they have educated farmers about cropping patterns. Earlier farmers in the region were largely cotton growers. After working with the corporation they have shifted to rotation with legumes. Two key advantages from growing legumes is nitrogen fixation which helps to enhance soil fertility. Also, legume cycle is shorter than cotton and more appropriate for planting onions. The farmers feel that overall, they have benefited from the legume, onion rotation. Cotton is a high value crop, but the overall benefits of soil fertility and income is higher in legume – onion crop rotation. The productivity for the farmers working with JISL was between 10 tons to 14 tons per acre (average productivity 12 t/acre), whereas the average productivity in the case of traditional production is around 5-7 tons/acre. (Punjabi, 2008, 10)

the micro-irrigation system. The cost of production for contract farmers working with JISL is Rs. 17,800 per acre, whereas the same is Rs. 11,800 per acre for the farmers selling to the traditional market.

Table 5.4: Gross Margin for JISL Contract Farmers versus farmers selling to Traditional Market

Parameters	JISL CF		Cost	Farmers selling to traditional market		
1. Labour	Number		Cost (INR)	Number	Cost (INR)	
Sowing	5		200@Rs 40/day	5	200@Rs40/day	
Transplanting	40		1600	15	600	
Weeding	60		2400	60	2400	
Harvesting	40		1600	40	1600	
TOTAL	145		5800	120	4800	
2.Input	Quantity	Unit Cost (Rs)	Total Cost (Rs)	Quantity (kg/acre)	Unit Cost (Rs.)	Total cost (Rs)
Land Preparation			1600		1600	1600
Seed	3	800	2400	3	300	900
Fertilisers (NPK)	60:50:80		2500	Random		1500
Pesticides			1500			1500
Irrigating Water (including System)			4000			1500
Total			12000			7000
Cost of Production (1+2)	17800			11800		
Value of Production	36000-84000			14000-49000		
Margin	18200-66200			2200-37200		

Source: (Punjabi 2008, 9)

The main difference between varying cost of production is the higher agri-input costs for irrigation system and associated water costs incurred by JISL farmers, which is a Rs. 4000. Though it is true that using expensive micro-irrigation system result in higher profit margins as compared to those farmers who do not do contract farming - the fact remains that using expensive micro-irrigation methods is possible on the part of a few farmers only. It is no mere coincidence that those farmers who use micro-irrigation methods also do contract farming. In fact, contracting corporations often suggest contract farmers to make use of low interest credit made available to them by the State. An official stated:

"...Our job is to dig deeper in the pockets of the farmer and get whatever we can from the State...Indian farmers are quite pampered..." (Managing Director, Tilda Rice, 2007)

Such use of bank credit for investing in micro-irrigation technology proves to be beneficial for the corporations that are selling irrigation technologies, the contracting corporations of course the contract farmers. It can thus be argued that CF promotes use of expensive micro-irrigation systems which discharges specific amount of water at specified times of the day. Such controlled irrigation along with controlled application of plant protection schemes assist a few rich contract farmers to increase their productivity further.

Section 5.3: Food Sovereignty in an era of Corporate Control?

"No Food Shall Be Grown That We Don't Own" – Monsanto's Reported Objective

(Bhattacharya and Khadse, 2010, 2)

This alarming objective of Monsanto needs to be analysed in context of the present study. In contract farming, an agro-processing corporation such as PepsiCo contacts a seed corporation (like Syngenta, Monsanto, Seminis) and asks for a seed that will be able to produce the perfect chips⁴² or fries. Based on the requirements, the seed corporation offers them the various products they have to offer. Once the seeds are selected, then other corporations are approached for finding the 'right' crop protection schedule and so on. Such agri-input corporations become 'business partners' of contracting corporations. For instance, some of the business partners of Bharti Field Fresh are – Syngenta (G5414 detassled baby corn seeds), Bayer Crop Science (for pesticides), DuPont (for pesticides) BASIF (for fungicide), Seminis (for French beans seeds) and John Deer (for tractors) (Interviewee, General Manager Agribusiness Development Bharti Del Monte India Pvt. Ltd., 2009). Once a contracting corporation has identified its business partners to supply the inputs, it suggests their specific products to the farmer - specific seed brands, plant chemicals, etc. Thus these seed varieties are specific to the needs of the corporations: In other words, starting from the seeds, what different products need to be used is not decided by the farmer but by the contracting

⁴² Perfect chips are those that do not become red upon frying, they are atleast 3 inches in diameters and have perfect oval shape (Interviewee, Agri-Marketing Head, PepsiCo. Ltd. 2007)

corporations. And as indicated throughout this study, the corporate control of food production is on the rise with the increase in instance of CF.

The seed is the first link in the food chain - and seed sovereignty is the foundation of food sovereignty (Shiva 2012). But what does food sovereignty mean in an era of corporate control? Table 5.3 indicates that 58% of the global market share of seed sales as of 2009 is controlled by 6 big corporations, with Monsanto leading the way, followed by DuPont. With seeds in the hands of five corporations, there would be no seed sovereignty and without that there would be no food sovereignty either. At present, much of contract farming operations are being done with hybrid seeds. In the previous chapter I discussed the issue of BRAI bill being introduced in the parliament as a one-stop shop for all biotechnology related activities in India. In case BRAI bill gets passed; it will be just a matter of time the seed-corporations will be selling their GMOs via contract farming. There is already plenty of evidence to show the impact of GMO BT cotton on farmers and their lives - many of whom are committing suicides⁴³.

When "Unlocking the farm gate" has become part of the Central Government's strategy to open up new avenues of investment in the "moribund" agriculture sector - and Contract Farming has become an important conduit to encourage foreign participation,

⁴³ Over a million people live in the Bhatinda district, known as the cotton belt of Punjab – as in genetically modified cotton sprayed with toxic agrochemicals. As a result, the area has also been plagued by high rates of spontaneous abortions, cancer, genetic deformities, anemia, diarrhea, vomiting, fluorosis, bone problems, and a host of skin ailments including rashes and boils. Debt-related farmer suicides in India spike highest in Bathinda and Sangrur. Vandana Shiva lays this squarely on the lap of GM seeds (2011)

how does one fight for food sovereignty? If food sovereignty (McMichael 2008; Patel 2009; Akram-Lodhi 2013) is understood as 'right of peoples to democratically control and shape their food system', then how can one talk about food sovereignty, if the state itself operating as an agent of a few agribusiness corporations helps them penetrate and control agriculture? Between ordinary peoples' right to control food production and the right of big business to control it, whose right will the State respect?

Having said that, food sovereignty is a dream worth pursuing. There are many scholars-activists who despite the odds of living in a capitalist society, believe that another world is possible. Mukherjee-Reed and Reed (2009) discuss fair trade networks where members of small producer organizations receive higher prices for their produce than was available in the world market - as well as providing several other benefits (e.g., advance payments, a social premium for community development projects, technical assistance, long-term contracts, etc.). Contrary to the critique of fair trade networks that assumes that entry of corporations in the fair trade chain contradicts the purpose of fair trade - the two authors argue that as such there is nothing necessarily wrong in *'mainstreaming' fair trade* (Mukherjee-Reed and Reed 2009, 4). However, what is needed is closer examination of development implications of social economy forms of fair trade production versus corporate led growth. While critiquing the assumptions that 'free trade' makes a positive contribution to a society's well being, Fridell (2013) exposes the histories and legacies of the International Coffee Agreement, the Canadian Wheat Board and the European-Caribbean banana regime and argues that there is an unbridgeable gap

between 'free trade' proclamations and the lack of actually existing 'free trade' arrangements. He introduces the specific aspect of the debate on the future of socialism as an alternative economic system that took place in the 1980s and focus specifically on 'feasibility' of developing models of socialism. He argues that "...a socially grounded reflection on the history of alternative trade can serve as an important bridge between the need for an alternative world order and people's imagination to believe in its feasibility. Alternative trade's propaganda of practice raises three major issues - around the state, monopoly, and social efficiency - that are of significant importance to those concerned with the prospects of an alternative world order and social and ecological justice more broadly...' (2013, 131)

In other words, the space to explore alternative models of trading and production are fast shrinking in the current phase corporatisation of Indian Agriculture. Yet, there is merit in exploring alternatives.

Section 5.5 Conclusion

The purpose of this chapter has been to assess the class character of CF specific technologies. Technology is not socially neutral and it needs to be conceptualised in a way that its real impact: impacts on different classes is not obscured. After discussing the role of technology in the contract farming production in itself, I argue that there are strong limits to how far the technological changes can become widespread in Contract

Farming operations, (or indeed in rural areas as such). Here I specifically discuss the social character of CF technology and the inherent class bias. More specifically, the major beneficiaries of the use of technologies such as mechanical tools, biochemical technology and micro-irrigation systems - are the capitalist farmers (in the Punjab) and the agri-input corporations. In terms of the latter, it is clear that the use of these technologies helps the big corporations - (i) compress the turnover time of capital in Capitalist Agriculture Development. For instance, quick maturation of seed varieties have provided opportunities to the agri-corporations to escape the obstacle of production time that nature takes in agriculture operations under 'normal condition' (Henderson 1998, 73) and (ii) reduce the uncertainties associated with agricultural production which is nature-dependent. In other words, natural obstacles to capital accumulation (waiting time while the nature does its work) become an opportunity for agro-corporations to invent technologies for capital accumulation. The use of these technologies also compresses the value of food chain so as to untie the time capital is tied up in various stages of capital circulation. For instance, R&D for seeds, development of seed, its germination, its production time, etc. is all controlled by a few agro-corporation to reap the maximum benefit from the entire value of food chain. Given that when a few agri-corporations are allowed to monopolize the very basis of the world's food supply, the societal benefit of Contract Farming Technologies becomes limited. The corporations are all about profits, not diversity, sustainability or food security. In such a context, the future of agriculture and food is in jeopardy. The question of food sovereignty in the context of CF is an

important one. It is important especially in a context where the state itself operates as an agent of a few agribusiness corporations, in the name of modernizing the agricultural sector and raising its rate of growth. However, I conclude that there is merit in exploring alternative models of trade and production.

Chapter 6

The Class Act:

Social Effects of Contract Farming

6.1 Introduction

The story of Contract Farming is incomplete without discussing a crucial dimension of this specific agrarian production: the conditions under which men, women, children – many of them migrants -- work for a wage to produce a niche variety of horticulture crops. Not only do the contracting corporations escape the labour process by getting involved with CF, even the scholars discussing CF, ignore the story of wage labour. This chapter is an initial effort to address a gap in the literature. I argue that there is a trend that shows that CF relations of production have specific effects on landless labour and poor peasants (the people who have a small amount of land and who must therefore have to work for a wage). This argument is primarily derived from secondary data sources and I hope that I get an opportunity in near future to develop it further.

This chapter is divided in two main sections. In the first section I discuss the relation between capital and labour, specifically in contract farming. Here, I focus on one

of the important aspects of CF - the fixed buy back rate for the farmer and argue that a fixed rate assumes a fixed profit for the farmer, which determines how much wage labour would eventually make. This section is sub-divided in two parts. In the first part I discuss the employment and wage situation on contract farms and how contract farmers make use of specific social relations of gender, age and ethnicity to cut down their labour costs. In the second part I argue that contract farmers employ strict labour supervision procedures in order to maintain the intensity of work. I conclude the first section by drawing and commenting on Raju Das's work on reconceptualising capitalism and its implications for my work. In the second section I discuss the impact of CF relations on poor peasants. Here I discuss two ways by which inequality between the peasants increase: Peasant differentiation and increase in social and economic difference. I draw on recent research reports to argue that since the beginning of late 1990 and early 2000, there has been an increase in the phenomenon of peasant differentiation, whereby small and marginal peasants are losing their lands due to successive increase in the cost of cultivation - to which Contract Farming contributes.

Section 6.2 Relations Between Capital and Labour on Contract Farms

CF is a system of agrarian production envisioned by the corporate capital to escape from the actual labour process, so it represents a form of outsourcing of production. Therefore, CF has to be seen as an exploitative relation between capital and labour, one in which the big business (corporate capital, the monopolies) is not directly

involved. The contract-farming corporations (Productive Capital - Pepsi, Nestle, etc.) do not hire any farm labour directly. A respondent from contracting corporation said:

"...They just need to manage labour. We will do everything else..." (Interviewee, Supplier Development Manager, Nestle India, 2007)

The quote above epitomizes the relation between capital and labour in CF. Corporate Capital - specifically productive capital - such a Pepsi etc., if given an option to escape the labour process, will do so as long as it gets the desired commodity at desired price. Therefore the job of agrarian capital/contract farmer is to 'get locked' in one place and become labour managers. During my fieldwork, this is what one of my agribusiness respondents said:

"... No private corporation wants to deal with labour issues. Therefore CF works for us..." (Interviewee, Supplier Development Manager, Nestle India, 2007)

Another respondent expressed similar sentiments:

"...We are in the business of making good quality fries, we cannot do everything. We cannot grow potatoes on our own. That is beyond our mandate, that is why CF works for us..." (Interviewee, Managing Director, McCain Foods, 2010)

The two quotes above corroborate the point that productive capital/contracting corporation does not get into any direct relationship with farm labour. They prefer not to get involved with the process of hiring or firing them. Neither do they intend to engage with the 'everyday' life of labour— illness, marriages, births, deaths etc. If a profit-making venture can also ensure that they would not have to directly control and micro-manage labour, yet reap the benefits that come from employing it, then that becomes a venture worth undertaking. CF operations are just that. Indeed, the backbone of CF operations is the relation between contract farmer and labour. However, it is the contracting corporation that mediates this relation. For instance, they decide what to grow, how to grow, when to grow, how much to grow, and so on. They also fix the terms of mediation between the contract farmer and labour.

It is in this context that the idea of 'pre-fixed price'⁴⁴ needs to be analysed. I argue that the fixed buy-back rate that a contracting corporation offers to the contract farmer hides within itself the terms on which a contract farmer eventually interacts with the labour. For instance, under the contracting agreement, the contracting corporation - such as Pepsi - agrees to pick up the produce at a fixed buy-back price. The buy-back rate is communicated to the farmer at the time of signing the contract even before the seeds are sown. However, the question is - how does the buy-back rate get calculated? For

⁴⁴ Pre-Fixed Price/Guaranteed Buy-Back are terms associated with advocates of Contract farming operations. In a contracting arrangement, a contract farmer is guaranteed a fixed buy-back rate of his produce. That is, even before sowing the seeds, he knows exactly how much it is going to cost him, and how much profit he will be able to make at the time of harvest.

instance, one of my respondents from PepsiCo said that the buy back rate is calculated backwards -

“...The cost of tomato seeds is Rs2000/acre. Through our R&D we know the per acre productivity of our seeds. Since we are aware of the amount of investment the farmer will be making on the crop (because we are also selling him the requisite chemicals etc. as well), we want to ensure a fair return on his investments as well. That is, if we calculate that a farmer will be able to yield at least 15Tonnes of tomatoes per acre, and that we are likely to contract out 500 acres of land in total – we fix a minimum price of Rs. 2.50 per kg – so $15000\text{kg} \times 2.50 = 37500\text{INR}$ per acre. Since we are already aware of cost of production (seeds, chemicals etc.) – lets say a total of Rs. 15000 – we ensure that the farmer has made a profit of at least 22000INR per acre even before he has sown the seeds...” (Interviewee, Agri-Marketing Head, PepsiCo. Ltd. 2007)⁴⁵

⁴⁵ The Agriculture Division Head of Satnam Agro Food, Harkeerat Singh, made a similar observation about fixed buy-back rate. He said - “...We closely monitor the total yield produced by the farm. We subtract that cost of production that the farmer had to incur. And we think that the farmer should be able to have a profit of 15000-20000 rupees per acre. ...” (The Agriculture Division Head of Satnam Agro Food, 2007). One of my other field interviewees, Gokul Patnaik, Chairman, Global AgriSystem Pvt. Ltd (2009) adds more to this. He says - “...We did an elaborate exercise on what is the 'normal' [quote marks inserted by me] income of a farmer for regular crops like wheat and rice. We calculated his approximate expenditure and the profit he makes off them. Understandably, if we want them to grow a 'new' crop, the remuneration has to be higher. We follow the Cost + Formula...”

The quote above shows fixed buy-back rates by contract farming corporation presuppose a 'fixed' cost of production for the farmer. The fixed buy-back rate also presupposes a fixed profit for the farmer. In a way, this fixed profit can be seen as a wage that the contracting corporation pays to the farmer! Though the advocates insist that the rates are fixed purely on the basis of 'investments made', there is a clear indication that shows how the international conditions and international prices are affecting the buy back rates of contracted crops in India. A respondent said:

“...We fix the buy back rate once we have figured out our target price for export. We calculate our total expenses; figure out our target price for raw material. Then we go to the farmer and tell them about our “buy back” rate and the amount of quantity the corporation requires. While selling the “buy-back” rate to him, we tell the farmer about his approximate growing costs, total yields after following our package of practices, and gross and net amount earned. If this is acceptable to the farmer, then he agrees to contract the crop with us...” (Interviewee, General Manager, Agribusiness Development Bharti Del Monte India Pvt. Ltd 2009)

This quote substantiates that a farmer gets a certain fixed price for the crop because the contracting corporation has pre-fixed their long - term goals and profit rates. So while calculating the cost of production for the farmer, the contracting firm also attaches an average value to the amount of money than the contract farmer can/should

spend on labour. However, it is not surprising that the contract farmer will do everything under his control to lower the cost of production for himself, as well.

What I have discussed above is a way in which the contracting corporation mediates the relation between the contract farmer and labour. This section is divided in two subsections. The first subsection discusses how contract farmers interact with the labourers. In particular, I discuss the working conditions of labour working on contract farms. In the next subsection I discuss the nature of labour supervision on contract farms in order to increase the work intensity of the labour. I conclude the section, commenting on Raju Das' paper on reconceptualising capitalism and its implications for my own work.

(1) Employment Situation and Wages on Contract Farm

“...My cost of production per acre includes 6000-7000 rupees/acre only on labour. I definitely try to reduce my expenses per acre..” (Interviewee, Floriculture contract farmer, 2010)

The quote above shows that while calculating the buy back rate for the contract farmers, the contracting corporations such as PepsiCo also include estimated cost payable to the labourer. However, the contract farmer is under no obligation to pay that amount. He minimises his cost of production by hiring the cheapest labour and employing different wage structures. During my fieldwork, it became increasingly clear that the contract

farmers, like other types of capitalist farmers (and rich peasants), seek to increase their profits in three ways: (i) by prolonging the working day, (ii) paying low wages, and (iii) making use of India's massive reserve army of labour in the form of 'vulnerable labourers' who are subject to forms of oppression like gender, ethnicity, age etc. (Das, 2012, 6). On the contract farms I studied, labour is differentiated on the basis of the following: (i) Migrant Labour working on a piece wage. (ii) Daily waged workers.

(i) Migrant Labour working on Piece-Wages

Under a piece-wage contract, the labourer chooses his or her own preferred pace of work and length of the workday, and is paid according to the amount of work accomplished (Marx, 1990, 692; Baland, Dreze, and Leruth 1999, 446; Gidwani 2001, 72). Migrant labour is an important component of the labour force working on contract farms in Punjab. Earlier migrant workers from Eastern Uttar Pradesh, Bihar used to come to Punjab during harvest season and return to their villages post-harvest. But now, because multiple crops are grown on contract farms, migrants seldom return to their native regions. A few of them work on yearly contracts as permanent *naukar* (servant) on the farm. Others continue work with a labour contractor. On contract farms, time-bound, fast paced work is often given to migrant men. They are paid in piece-rate wages since this reduces the completion time (Gidwani 2001, 64). One of contract farmers I interviewed said -

“...Labour that works on *theka* (piece-wages) are far more productive...”

(Interviewee, Contract Farmer, *Fatehgarh Sahib*, 14 March 2009)

Contract farmers adopt piece-wage system that increases per hourly productivity of labour. This works since the labourer now has a built-in incentive to work faster in order to earn more (Gidwani 2001, 72). For example: preparing potato sacks and loading them on trucks on time requires a labourer on piece-wage contracts. One such labour contractor who also works as a labourer said -

“...I start work at 7-8 in the morning and work till 11-12 at night. I stay on the farm with other folks from my village who are also working here. All of us work for almost 16 hours a day. We all try to work as much as we can. For every sack we load, we get 5 rupees. In one day, if we are able to load at least 200 sacks in the truck, then together we are paid $200 \times 5 = 1000$ INR, which we divide between 10 of us...” (Ramkripa, labour contractor, May 2009)

The quote above shows a normal working day for a labourer working on piece-wages and it becomes increasingly clear that this working day is not fixed. The piece-wage system assists the contract farmer in lengthening the working day, making the labourer work for longer hours and intensifying the pace of work. Work output is therefore maximized through the piece-wage system: the faster one works, the more money is earned (Das, 2013, 19).

To add to this, the working conditions of the labourer are further deteriorated since there are no proper labour unions that they can go to. I interacted with a few Labour Organisers in *Sangrur* district of Punjab. This is what one of them said -

“...It is the temporary nature of their visit to Punjab (some come for 4 months and go away, some are here for a year and then they go back) and because they are more busy, it gets difficult to organise migrant labour because their work place keeps changing, landlords keep changing, etc. In Ludhiana alone, 95% of labour is from UP and Bihar...” (National Vice President, *Lal Jhanda Punjab Bhatta Mazdoor Union*, Ex- MLA, and also a candidate for CPI -ML (Liberation) Party 11 April 2009)

The quote above shows that there is an absence of labour unions in Punjab to cater to the needs to of agrarian labour - and this makes the low wage paying system of contract farming agrarian production easier. The next quote is from a labourer who also works on contract farm in Punjab. He said:

"...As such Contract Farming makes little difference in our daily lives. Even now we are dependent on our *sardar* for our daily food. If we work, we are paid. If we do not work then we do not eat. This is our life..." (Naveen – a worker on a contract Farm, Ludhiana, 2009; Source: author's fieldwork)

This quote reiterates the facts that labourers on contract farm do not benefit from the much hyped 'agriculture development' in agriculture.

(ii) Daily Wages: Child Labour and Women Labour

A daily-wage contract usually involves working at a given pace of work for a fixed wage and a fixed number of hours, all of which are identical across employers or labourers (Baland, Dreze, and Leruth 1999, 446) These differences also impact their monetary compensation. This cheap labour combined with the internal differentiation of the class, its feminisation, and the use of child labour creates appalling conditions for labourers. Contract-farmers take advantage of laborers' vulnerable position by paying lower wage.

They also find it convenient and more advantageous to employ child labour, as they are less likely to go on strike and disrupt production. They are also the easiest to dislodge at times of economic difficulties. They can be made to work in poor working conditions on a very low wage rate. According to the 1991 census⁴⁶ there were 1,20,520

⁴⁶ “...main child workers were 93.96 per cent of the total child workers in 1991. This clearly shows that the percentage of marginal workers is very small and child labour in Punjab mainly comprise of those children who work for the major part of the year and their main activity is confined to either cultivation as agricultural labourers, or in the household industry, or in some other jobs in the informal sector...a large number of children, i.e., 1,906, working in brick kilns, followed by 936 in hotels, restaurants, *dhabas* and tea stalls, 91 children were working in hazardous processes, defined by schedule ‘A’ or ‘B’ of Child Labour (Prohibition and Regulation) Act, 1986. The survey data further show that out of 3,614 children detected 2,802 were males and 812 female and 2,952 (81.68%) illiterate. Further information shows that 2,474 (68.45%) children detected were found to be working for a period ranging from 0 to 6 months. The majority of them 2,761 (75%) were working for more than six hours a day. Of the children detected 428

children in rural areas and 22,310 in urban areas of Punjab, which shows that child labour is mainly prevalent in rural areas (85.62%). Children working on contract farms contribute to augmenting their family's income. Most of the children working on contract farms are born to migrant parents from Bihar, Uttar Pradesh, and Orissa who bring their children to work to augment their family income. For instance, production of flower seeds through CF is increasing in Punjab. The seeds are exported to European markets – where they are kept in green houses and prepared for 'festive seasons' – such as mother's days, valentines' day and so on (Interviewee, contract farmer, 2009). One of interviewees was growing flower seeds on contract. He claimed to create a child-friendly wage model by employing child labour! He said:

“...I prefer to employ small kids as they are very cheap and have nimble fingers and they are only required to collect the seeds of the flowers. Flower seeds drop at night, so children come to field by 5 am. They work for 4 hours and then leave for their school. This way, they also continue schooling. Then, when the sunsets, they come again around 5 pm (after school) and work for another 4 hours. So their 8 hr. day gets divided into 2 shifts. Since the wage rate is on the basis of 8 hours

were getting up to Rs 200 per month, 1,334 from Rs. 200 to Rs. 500 and only 1,852 (48.75%) getting wages about Rs. 500 per month. The survey also much that most of the children found working were wards of migrant labourers. Locals were very few. Data also show district-wise concentration of child labour. Out of 3,614 child labourers detected by the survey, the maximum number (932) in Amritsar, followed by Kapurthala (769), Jalandhar (384), Hoshiarpur (347), Patiala (211) and Ludhiana (144)...” (Child Labour Survey Report, Department of Labour, Punjab, 1997 as quoted in Planning Commission 2002, 545).

continuous long day, I am not really obliged to pay them the daily wage, and so I pay then 6 Rs/hr. – so in a day they get paid 48 rupees! They don't even get tired and are very efficient in morning and evenings. And they can continue with their schools etc...” (Contract Farmer, Mr. Dhindsa, Patiala, 2009)

This quote above shows further how the cheap labour of a child is preferred over the 'more expensive' labour of a woman or a man. Wages as outlined in the quote show that child labour works for bare subsistence; child labour is cheap. The contract farmer very cunningly breaks the working day in two halves. It is almost as if children work in shifts on the farm, except that unlike in a factory, here the same set of workers work at two different times of the day. This is because it is physically impossible to exploit a child for strenuous work that requires concentration for eight consecutive hours. Therefore, breaking the working day in two halves gives the children a much needed break. Though whether the child goes to school to learn or goes to do another job for few hours is a different matter.

Recent research has noted that over the past two decades, there have been striking differences between trends in female and male employment. From 1975 to 1991 there was a general trend for male labour throughout rural India, to move from agricultural labour to rural non-agricultural employment. However, female labour remained very largely in agriculture, and as men vacated agriculture for better-paid non-agricultural jobs, wage labour in agriculture became increasingly feminised throughout rural India (Kapadia and Lerche 1999, 5–6). So most daily wage workers on farms are local Punjabi

women who work from "...8 in the morning till 6 in the evening..." (Ravinder, local punjabi labour on contract farming)

(2) Labour Supervision:

To enhance the work intensity of labourers, contract farms are strictly supervised. Labour control is a crucial aspect of Contract Farming operations. Kelly (2002) argues that space can be constructed and controlled in a way that can enhance control over the laboring body⁴⁷. It is indeed difficult to create such spaces in agricultural fields so that labour can be controlled effectively. However, layers of hierarchy and effective surveillance mechanisms have been created in order to control labour to ensure fewer and shorter breaks are taken so that work does not suffer. Tiers of labour supervision have been created on Contract Farms. It should be noted that most contract farmers only employ one or two tiers of supervision.

⁴⁷ Through his case studies of industrial sites in South East Asia, Philip Kelly (2002) argues that space can be depoloyed in the process of labour control. He identifies 5 ways - (i) Atomizing workers' bodies: here focus is on discipling labour at an individual level. (ii) Workplace as containier - here the purpose is to make the space self sufficient in managing labour issues at a collective level. In-house unions, labour-management councils or bi-partisan committees are the usual mechanisms for achieving this goal. (iii) Industrial Enclave - This refers to the laws of export processing zones. Here corporations network together and estate managers seek to play a role in industrial relations. Spaces are created as denationalised and desocialised spaces to provide easy start ups to corporations, easy global transport and communications linkages and often *de facto* freedom from social regulations such as labour law (404). (iv) National Bureaucratic space and (v) Migrant Spaces etc.

(i) Farm Managers

Just as it happens in an industrial context, the contract farmers have also started employing managers to oversee labour and farm operations. At times while I was in the field, I could only interview the managers and not even get to see the contract farmer himself/herself. Typically, such contract farmers were rich landlords who did not farm on their own. They usually lease out their land or else, as in this case, experimented with CF. The hired farm managers are often graduates or diploma holders from agriculture universities in India. Their job is to oversee the farm operations. They look over the jobs of labour contractors, labour coordinators and labour. They also inspect the growth of the plant, oversee the sprays of chemicals etc., manage labour issues, make payments and contact the landlord only in case of emergency.

“...I manage the farm by myself but I do not take decisions. I manage labour, I ensure that they come on time, mark their attendance, I monitor their 'break-time', basically I have to ensure that work gets done...” (Farm Manager, Manjit, Nakodar, 2009)

They work closely with the officials of contracting corporations and plan strategies for maximum yield. They were also involved with organising farm administration - for instance tracking the number of sacks of potatoes produced in a day and so on. They managed machinery. I interviewed only a couple of farm managers and they were required to be technically and practically competent. Since crops produced on contract

farms are mostly meant for export purposes that need to follow strict certification process, it was therefore the responsibility of the farm manager to satisfy the requirements of the certification process and produce high quality produce.

(ii) Labour Contractor/Supervisor
(*thekedaar*)

A Few contract farmers rely on labour *thekedaar* (contractor) for employing and managing their labour concerns. Usually, one *thekedaar* is responsible for 8-10 labour on a contract farm (see plate 6.1).



Often, even a *thekedaar* gets into a contract with the farmer. That is, *thekedaar* assumes the complete responsibility of the job that needs to be completed. Thus, his job is to see that complete expectations of the farmer are met. *Thekedaar* makes his labour work for long hours to complete the tasks at hand. As discussed before, labourers work for 15-16 hours in a day. The tasks range from sowing to harvesting, then sorting, packaging, loading, unloading etc. On an average, a labourer working with *thekedaar* on a contract farm can earn up to 5000-6000INR/month. Emphasising the necessity of having supervisors, an interviewee responds:

“...We have a total of 120 labourers right now. How can I manage all of them by myself? Labour does many petty things that can be very irritating. They go to any part of the farm to relieve themselves. Further, you just cannot say anything to ladies. I have 12 servants who also work as supervisors. We also have deadlines to meet...” (Interviewee, Contract Farmer, 2009)

Contract Farming is introducing a new culture of doing agriculture in India. The pressure of doing agriculture operations on time is one of the reasons why there is an increased surveillance of labour on farms. The precise nature of farming operation that CF represents presupposes a disciplined labour that works efficiently.

(iii) Labour-Coordinator

Hiring of a labour-coordinator is a strategy of capital to ensure that labour does not unite.

They employ one person from amidst the labourers and give them the responsibility of 'keeping check' on the rest of them. Typically his or her job is to report to the manager, in case anyone misbehaves.



**Plate 6.2 : Attendance Record managed by
labour coordinator at Nex Gen Farmers. (c)
Ritika Shrimali**



Plate 6.3: Labour Coordinator with attendance register on Nex Gen Farm (c) Ritika Shrimali



Figure 6.4 :Labour Coordinator makes tea for labour on the farm. (c) Ritika Shrimali

"...We also have a labour coordinator. She is one of them. She is also from labour-class. Her job is to take attendance, make *chai* (tea) for everyone. She keeps an eye on the others..." (Interviewee, Contract Farmers who operate as a corporation - Next Gen Farmers, 2007).

Labour coordinators are needed by the contract farmers to keep a tab on the labour. Their job is to mark attendances. When a labourer takes time off to relieve them of nature's pressure, it becomes the job of the coordinator to ensure that they do not take more than 'normal' time to return to their work. The coordinators often report either to the manager or to the farmer.

Towards Conclusion - Formal or Real Subsumption of Labour under Capital

In his exemplary recent piece on 'Reconceptualizing Capitalism' for Developing Countries, with specific reference to India, published in 2011 in *Review of Radical Political Economics*, Raju Das argues that contrary to Marx's assumption that the bourgeoisie cannot exist without constantly revolutionising the instruments of production and thereby relations of production, in much of rural India and indeed in many parts of the periphery, instruments of production have not been quite revolutionised (Das, 2011, 2). He argues that even if capitalists do not reinvest part of their profit in technological development, they would be considered capitalists. According to Das, the reason why capitalists do not reinvest is that there are plenty of opportunities for 'formal subsumption of labor under capital', producing absolute surplus value. That is, capitalists can generate a lot of surplus value by making labour work long hours for low wages.

In this context, Punjab emerges as a curious case. Punjab is one of the most agriculturally developed states of India. Punjab ranks 1 in the Agriculture Commercialisation Index of the country (See map 3.3 in chapter 03 for more details on this). It is considered one of the most progressive states in India with a willingness to adopt new technologies and prosper. In the current context, through contract farming, productive capital, mercantile capital and finance capital are creating conditions for speeding up the agrarian production by use of technology - use of hybrid, Bt. seeds,

chemicals, plant protection sprays, enhanced irrigation methods etc. As a result, relative surplus value is produced by raising the productivity of the worker, thereby enabling him to produce more in a given time with the same expenditure of labour. Contract farmers also reinvest their profits back on the fields by way of using expensive seeds and chemicals. On the other hand, agrarian capitalists/contract farmers ensure that there is no shortening of the hours of the labourers. By working on piece-wages, labour is made to work for longer hours with fewer breaks. By making the migrant labourer stay on the farm, odd hours are also used towards farm work. A labourer stated:

"...we stay on the farm. Farm gets electricity at night - 2-3am, so we have to wake up and irrigate the fields at night. At times our sardar gets the news that temperature is likely to fall down at night, so we work at odd hours to cover the field..." (Labour on Contract Farm, 2009).

The above quote shows that working day of the labourer on the farm go beyond the 'normal working hours' even when advanced irrigation methods and weather forecast services (typical for contract farmers) are used.

Punjab is a preeminent case of double subsumption (formal and real) of labour taking place at the same time and at the same place. In other words, while the general tendency is towards the dominance of formal subsumption, there are specific (place/sector-specific) cases where real subsumption can happen as well (e.g. CF, ITC,

etc.), which, importantly, happens to be associated with foreign capital. The question to ask: are there limits to the deepening of real subsumption?

Section 6.3 Relation between Capital and Poor Peasants

As much of the discussion in this section is temporal in nature and requires data on a longer time frame, it should be noted at the outset that I have relied primarily on existing studies for data. Also, as has been repeated throughout the dissertation, contract farming is a recent phenomenon. It is impossible to get data that specifically discusses implications of CF. In this section I discuss a general trend and deduce implication of CF for poor peasants.

Contract Farming has direct implications for peasant differentiation. In a study⁴⁸ conducted in 2007, it was found out that since the year 2000, almost 63% of the small farm families have quit agriculture. Table 6.1 shows the details. The table shows that since the year 2000, over 60% of marginal farmers with less than 1ha of land have left agriculture. A similar trend has been observed for all the small farm categories. This period is particularly noteworthy because of increasing input costs of agriculture, decreasing profitability in agriculture and withdrawal of the state from providing agriculture related support

⁴⁸ Singh, K; Singh, S; Kingra H.S.; Status of Farmers who left farming in Punjab, The Punjab State Farmers Commission, Punjab Agricultural University, 2007

Table 6.1: Period-wise and category wise farmers who left farming, Punjab

Period	Small (2-4ha) in %	Very Small (1-2ha) in %	Marginal (<1ha) in %	Overall in %
Before 1990s	6.7	4.2	4.6	5
During 1990s	35.8	29.7	31.8	32
Since 2000	57.5	66.1	63.6	63
Total	100	100	100	100

Source: (Singh, Singh, and Kingra 2007, 15)

The next table - 6.2 shows some of the reasons for leaving farming.

Table 6.2: Reasons for leaving farming, Punjab

Reasons	Small (2-4	Very Small (1-2ha) in %	Marginal (<1ha) in %	Overall in %
Low income from farming	58.2	59.9	71.4	64.1
Division of Land	29.1	25.5	43.3	33.5
Debt Repayment	31.3	29.7	35.5	32.4
Starting new Occupation	25.4	22.4	25.3	24.3
High land rent making it costly to lease in	23.9	17.2	14.3	17.7
Other*	28.4	24.5	12.4	20.6

Source: Singh, Singh, and Kingra 2007, 17

*** Other reasons include: death of main earner, old age, crop failure, high land prices, drug addiction etc**

The primary reason for farmers quitting farming is that it is not a lucrative business anymore. When we look at Tables 6.1 and 6.2 together it becomes clearer that the small and marginal farmers in Punjab have been leaving agriculture, particularly since 2000, on account of abysmally low income, high input costs, land fragmentation, increased cost of production, etc. from agriculture. So far, I have established that small and marginal farmers are leaving agriculture because of increase in cost of cultivation.

The next set of data in Table 6.3 has been created to argue that CF is causing peasant differentiation in Punjab. For this, I have shown three sets of data. The first set of data shows percentage of land leased-in by contract farmers on cash rent basis. Of the total 1625 farmers, 922 farmers have leased-in land (56.74%). Of this, almost 50% of contract farmers have leased-in more than 25 acres of land. *Hoshiarpur, Jalandhar, Kapurthala* and *Nawanshahar* in the *Doaba* region have the highest percentage of farmers who have leased-in more than 25 acres of land. Less than 25% of contract farmers have leased in less than 5 acres of land. *Doaba* region is one of the most fertile and prosperous regions of Punjab - and it is home to many rich capitalist farmers. Further, the leasing rate is higher in agriculturally advanced districts as compared to the poorer districts. The leasing-in rates are more than Rs.15000 per acre in *Doaba* region (Pattanaik et al. 2008, 38).

Table 6.3: Data showing (i) Geographical Regions of Punjab (ii) Land leased-in by contract farmers (in %) (iii) Operational Land holdings by Contract Farmers (in %) and (iv) status of land holding of small farmers after leaving agriculture, 2007

District	Region	Land leased-in by contract farmers (in%)* /2007			Operational Land-holdings by contract farmers (in%)** /2007			Status of small land holdings after leaving agriculture (in 2007)***
		<5 acres	5-10	10+	<10 acres	10-25	25+	
Amritsar	Majha	27.85	32.91	39.24	20.41	49.66	29.93	Total Sale – 21.5%
Gurdaspur		54.17	29.17	16.66	32.84	55.22	11.94	Partial Sale – 12.3% No sale – 66.2%
Bhatinda	Malwa	21.88	40.62	37.50	14.66	53.33	32.00	Total Sale – 41.8%
Fathegarh Sahib		27.03	21.62	51.35	25	38.46	36.54	Partial Sale – 14.8%
Faridkot		16.00	32.00	52.00	15.38	34.62	50.00	No Sale – 43.4%
Ferozepur		44.44	22.22	33.34	19.6	39.22	41.18	
Ludhiana		15.94	26.09	57.97	18.62	42.16	39.22	
Mansa		43.48	30.43	26.09	19.67	55.74	24.59	
Moga		18.75	34.37	46.88	15.38	59.62	25.00	
Muktsar		11.11	61.11	27.78	9.84	54.10	36.06	
Patiala		32.69	26.92	40.39	25.51	43.88	30.61	
Sangrur		33.75	26.25	40.00	22.47	48.88	28.65	
Hoshiarpur	Doaba	22.83	17.81	59.36	17.25	51.12	31.63	Total Sale – 22.7%
Jalandhar		7.14	14.29	78.57	10.46	25.36	64.18	Partial Sale – 4.6%
Kapurthala		6.45	9.68	83.87	18.52	20.37	61.11	No Sale – 72.7%
Nawanshahar		16.83	24.75	58.82	23.57	46.43	30	

Ropar		46.15	34.62	19.23	47.27	38.18	14.55	
TOTAL (1625CF)/922		24.08 (222)	25.26 (232)	50.76 (468)	20.56	46.34	33.10	

Source: * CRID (2008) report on Contract Farming System in Punjab: An appraisal, pp. 35

** Ibid, pp. 39-40

***(Singh, Singh, and Kingra 2007, 28–29)

The next set of columns in the same table shows the percentage of operational landholdings of contract farmers in Punjab. Out of the total farmers, 33% have their operational land holding size of more than 25 acres, whereas 46% have between 10-25 acres. This shows that more and more large peasants who either own or have the capacity to lease-in land are getting involved with contract farming operations. In *Jalandhar* and *Kapurthala* in the *Doaba* region, more than 60% of the contract farmers have more than 25 acres of operational landholdings. *Bhatinda*, *Hoshiarpur*, *Ludhiana*, *Mansa*, *Moga*, *Muktsar*, *Nawanshahar*, *Patiala* are a few districts where more than 40% of contract farmers have 10-25 acres of operational land.

So far I have discussed the status of Contract Farming with respect to the rich peasants. The next and final column in the table shows the status of small land holdings after leaving agriculture. This data shows that in *Malwa* Region of Punjab, 41.8% of small farmers have left agriculture and completely sold their land and approximately 14% have partially sold their land. Taking a rough approximation, one can say that in Malwa

region, atleast 50% of the small farmers have left agriculture and they have sold their land. This region is also known as the cotton suicide belt since most of the farmers who are committing suicide in this area were growing Bt. cotton on contract basis. Punjab agriculture thus is at the threshold where the differentiation⁴⁹ among the farmers is resulting in marginalization of the small and marginal cultivators. The question then is, what is happening to the land?

In the 1950s-1960s, it was the small owners who leased in land to supplement their operational holdings and large owners unable to cultivate their land indulged in leasing out.(Gill 2005, 232). But today it is the medium owners who lease in land and small owners lease out their land. Many marginal and small farmers with low-income level are in search of jobs outside agriculture; when they find alterative sources of employment they move out of agriculture, leasing out their land. Consequently, a dominant form of tenancy, generally unrecorded, is the leasing in land by middle and big cultivators from small and marginal owners, often referred to as reverse tenancy (Gill 2005, 232). Reverse tenancy in agriculture has been described as commercial tenancy or capitalistic tenancy (Brar and Gill 2001, 220). It appears, thus that capitalist farmers are buying up land or taking land on lease from small landholders to do contract farming. I therefore argue that the increasing cost of cultivation is making agriculture unviable for small and marginal peasants who sell their land to middle or large peasants. Increase in

⁴⁹ This is what Lenin referred to as peasant differentiation. According to Lenin, capitalism developed within the peasant sector through a process of socio-economic differentiation (Lenin 1987, 15). By differentiation he meant that some peasants were growing richer, while others grew poorer. This is the process of depeasantisation.

cost of cultivation since 2000 coincides with the increase in instances of contract farming. And in more cases than one, a farmer who is buying up the land also does contract farming. The purpose of CF then, is centralisation of capital - where small peasants loose their land and middle/large peasants consolidate their landholdings. That is, some peasants are growing richer, while others grow poorer. This is the process of depeasantisation.

Another factor associated with marginalisation of small and marginal peasants is the accumulation of capital by 'concentration of productive forces' (Kautsky 1988, 147). In other words, the more the investment on a parcel of land, the more results it will yield. And as a corollary to that, the peasant who can invest more on his land benefits more from it, thus creating a situation of increasing economic differentiation between farmers. Here I will first discuss Table 6.4, which shows the difference in investment per acre between contract farmers who use hybrid seed for *Jowar*/sorghum and those non-contract farmers who use native seeds.

Table 6.4 Increase in capital investment per acre on fields of contract farmers vs non-contract farmers.

	Native Seeds grown by Non-contract Farmers	Hybrid Seeds grown by contract farmers
Farm manure/Feritliser	1.5kg/acre@Rs5/kg	3kg/acre@Rs.30/kg
Labour (own)	50	800
If plough bullocks are hired	NA	100
Labour (weeding)	Not required	30

Application of BHC	Not required	100
Irrigation	Rainfed	100
Weeding (twice)	Not required	300
Endosulfan – including labour	Not required	500
Urea (2 bags)	Not required	150
Potash	Not required	150
Labour	Not required	100
Harvesting and threshing	Not required	600
Total expenses/acre	300	3230.00
Yield	8 qtls	12qtls
Rate at which sold	Rs. 400/qtls	Rs.300/qtls
Total Income	3200	3600

Source: (Shiva 2007, 18)

The table above shows that yield per acre with hybrid seeds grown by a contract farmer is more than the native variety grown by non-contract farmers. Thus, the farmers who grow hybrid seeds of Cargill⁵⁰ have been able to make land more productive. So whereas the yield per acre on non-contract farms growing native variety is 8 quintals, the contract farmers growing hybrid seeds produce 12 quintals per acre. Further, the crops on contract farms require a regimented plant protection schedule, proper irrigation system

⁵⁰ Cargill is the largest of the giant grain trading corporations in the world. It is an international marketer, processor and distributor of agricultural, food, financial and industrial products with approximately 80,600 employees in more than 1000 locations in 65 countries and with business activities in 130 more. Cargill controls over 70% of the world's trade in cereals. Together with the other corporations, it controls 85% of US wheat exports and 95% of its corn, 90% of Canada's barley exports, 80% of Argentina's wheat exports and 90% of Australia's sorghum exports(Shiva 2007, 1)

etc. For instance, as the data from table 6.4 indicates, approximately 900 rupees/acre (includes application of BHC+Endosulfan+Potash+Urea) is spent on chemical sprays on plants and about 100 rupees/acre is spent on irrigating the contract farms. The purpose of showing this data is to show that on contract farms there is a visible increase in investment per acre as compared to non-contract farms. This indicates that CF requires the farmer be economically capable of investing in land. This also shows that more investment/acre translates to more income/acre. Since not all farmers are capable of doing so, there is an increasing gap between those farmers who get involved with CF and those who do not. It is here that I argue that socio-economic differentiation is happening. The next table (6.5) shows the cost of external agri-inputs/acre in Punjab after using sunflower seeds of Cargill.

Table 6.5: Cargill Seeds for Sunflower grown via contract farming in Punjab

	Quantity – Inputs/acre	Cost of Inputs/acre - Amount in rupees
Fertiliser	4 bags	1500
Pesticide		200
Seed rate/acre	3kg	420
Transport		50
Irrigation		80
Labour/weeding and 20 men sowing		300
Tractor/ploughing		200
Labour-threshing	6men	120
Labour-harvesting	10men	200
Total		3070
Expected output of seed		8 quintals/acre

Source: (Shiva 2007, 18)

Table 6.5 also indicates that an increase in investment/acre is also reflected in the total income earned by contract farmers. It is not that the non-contract farmers are uninterested in earning more, but the larger group of non-CF farmers are those who are financially unable to do so. This is because doing CF is an expensive business venture. One of my field interviewees said:

“...Farmers who do CF are also well off. Depending on the crop, on an average, the cost of production comes to around five to ten thousand rupees per acre. All farmers cannot afford to spend that much money on farming. Farmers work according to their financial capabilities...” (Interviewee, Field Expert, Satnam Agro, December 2007)

The quote above substantiates my point that on contract farms there is an increase in the investment per acre. This uneven adoption of CF – the fact that some adopt it and others do not – is creating a new form of inequality. This difference is increasing the economic gap between the rich and middle peasants, or between relatively well-off farmers and those who are not so. And this gap is being experienced at a personal level. In an interview with a non-contract farmer this increase in economic difference becomes apparent:

“...Before '*hari kranti*' (Green Revolution) started, I and Maninder Singh were best of friends. We practically used to live at each other's houses. We never felt any economic difference between ourselves then. Then from 1970-80s my downfall started. I was trapped in my debts. Maninder Singh had a decent family backing and so he kept going ahead. I hear that he is now doing 'corporation wali kheti'/contract farming. Now he will be earning even more. I cannot do CF because I do not have that kind of money to invest in my fields...” (Interviewee, Sukhdev Singh, Non-Contract Farmer, April 2009)

The above quote is a reflection of the increasing economic and social gap between farmers. It also shows that mere availability of technology or presence of a market is not the only prerequisite for ensuring that farmers gain from production systems like contract farming. Just because there are opportunities, does not imply that everyone has access to them.

The second aspect of economic differentiation between farmers is when the contract farming corporations transform the seemingly small and scattered properties of individual capitalist farmers, into one huge parcel of land and mediate the contracting agreements as though they are operating on one big parcel of land. This is what the contract farming advocates refer to as 'grower consolidation'. A few respondents discussed similar aspects:

“...We create farmer pools. For instance, there is a pool of farmers around Ludhiana. Similarly, there is another pool of farmers in *Amroh*. On an average, each farmer pool has an approximate total of 350 acres of land. Getting one single land with such area is not easy. Most of the land is owned by the farmers, however, they also take land on lease from smaller peasants to increase their total cropped area and area under contract farming. CF brings farmers together into one pool of farmers and brings the benefits of large-scale operations to contract farmers. This pool of farmers operate AS IF its one large scale operation...Tomorrow if you want to grow, you can add 100 more farmers but you just can't get 400-500 acres of land just like that...”(Interviewee, IFPRI, 2009), ” (Interviewee, Global Agrisystems, 2009) and (Interviewee, Satnam Agro, 2009).

Thus CF is also a form of centralisation of capital, where individual dwarf like properties are subsumed into one, albeit without any immediate . This quote reasserts that agrarian accumulation in India is based on an increase of productivity/acre and not necessarily on the direct dispossession of peasants from their land - as often advocated by David Harvey (2006). In other words, whereas peasants are being dispossessed from access to public infrastructure, credit services, in CF there is no 'violent' or physical separation from their land.

Section 6.4: ACCUMULATION BY DISPOSSESSION: A WORD

In an interview⁵¹, Harvey says - "Accumulation by dispossession is about plundering, robbing other people of their rights...it is taking away peoples rights...it is about taking away the rights people have over their natural resources, pension funds...." While discussing Marx's description of primitive accumulation, Harvey (2004, 74) identifies a wide range of processes such as - "...the commodification and privatization of land and the forceful expulsion of peasant populations; conversion of various forms of property rights – common, collective, state, etc. – into exclusive private property rights; suppression of rights to the commons; commodification of labour power and the suppression of alternative, indigenous, forms of production and consumption; colonial, neo-colonial and imperial processes of appropriation of assets, including natural resources; monetization of exchange and taxation, particularly of land; slave trade; and usury, the national debt and ultimately the credit system..."

Harvey adds that -

"...some of them have been fine-tuned to play an even stronger role now than in the past. The credit system and finance capital have been major levers of predation, fraud and thievery. Stock promotions, ponzi schemes, structured asset destruction through inflation, asset stripping through mergers and acquisitions, the promotion of levels of debt encumbrancy that reduce whole populations, even in

⁵¹ http://www.logosjournal.com/issue_5.1/harvey.htm - As accessed on 23 July 2014.

the advanced capitalist countries, to debt peonage, to say nothing of corporate fraud, dispossession of assets (the raiding of pension funds and their decimation by stock and corporate collapses) by credit and stock manipulations – all of these are central features of what contemporary capitalism is about..." (Harvey 2004, 74-75)

Further, whole new mechanisms of accumulation by dispossession have also opened up. For instance,

"...The emphasis upon intellectual property rights in the WTO negotiations...biopiracy and the pillaging of the world's stockpile of genetic resources...escalation in the depletion of the global environmental commons (land, air, water) and proliferating habitat degradations...the commodification of cultural forms, histories and intellectual creativity...the corporatization and privatization of hitherto public assets (like universities)...privatization of water and other public utilities constitute a new wave of 'enclosing the commons'..." (Harvey 2004, 76)

In other words, the history of the survival of capital shows that wealth gets created by dispossessing others of their rights and their wealth. That is, survival of capitalism depends on dispossession. Through this dissertation I argue that that even though corporatisation of agriculture production will dispossess the farmer, it will create class differentiation, yet, case of Contract Farming indicates that survival of capitalism does

not require direct producers to be dispossessed in the sense of legal ownership of their land.

6.5 Conclusion

In a dialectical worldview, there are similarities and differences between processes (Ollman, 2003). What makes contract farming similar to non-contract farming of larger landowners is not just that they are both instances of capitalist development in agriculture, but the distinction between the two comes from the fact that India's economy is getting closely linked to the world economy. Increasingly, such policy choices and regulatory frameworks as are being adopted that are governed by the needs of the global competitiveness rather than national coherence. This also has impact at the level of the farm. In *Capital Volume I*, Marx stated -

'...As soon as peoples...are drawn into a world market dominated by the capitalistic mode of production, whereby the sale of their products for export develops into their principal interest, the civilized horrors of over-work begin...' (1990:345).

In other words, increased linkages with the world economy imply stricter working conditions and greater exploitation of the labourers and marginal peasants. This has been mediated by an active State and greater access to credit.

The purpose of this chapter has been two fold. First, the chapter should be seen as an initial effort to address the existing gap in literature on relation between CF and labour. The second purpose is to review the impact of CF relations on labour and poor peasants. The two segments of the population are the two most important constituents of the poor in India (Das, 2002, 57). Towards the beginning of the chapter, I argue that corporate capital undertake contract productions because in this way they can excuse themselves from dealing with labour issues. It is the agrarian capital in the form of contract farmer that gets locked in the situation and has to deal with labour. Here, I specifically look at a hallmark concept of contract farming (popularized by advocates of CF): 'fixed buy-back rate'. I argue that even before sowing the seed, a contract farmer is aware of the fixed profit that he will make on the contracted production. In other words, the contracting corporation attaches value to each component while calculating the cost of production for contract farming - and thus assigns a value to 'wages paid to the labour'. In this context, the contract farmer employs the cheapest labour in the form of migrant labour, women and children. Wages vary depending on the kind of work labour does. Migrant men who work as permanent labour on the farm get Rs. 3000+2 bags of grain per month. They work for over 16 hours in a day. Migrant men who work on contract at piece-wages can earn upto Rs. 5000 in a month in peak season of work. Their work also extends to 16-18 hours in a day. Daily wage work is done by local Punjabi migrant women. There is not much difference in their wage structure. On an average they earn Rs. 70 per day (note that one kilo of wheat flour costs atleast 25 rupees per kilo and a family

of 4 requires atleast 2 kilos per day in order to eat and reproduce themselves to work the next day. 50 rupees are spent in just buying basic bread and then the cost of vegetables is not yet accounted for). In fact, as per the Government of India, Ministry of Labour and Employment bureau report, the all-India average daily wage for women in unskilled occupations ranged between Rs.60.31 -71 in 2009. This figure is different from the minimum wages as stipulated by the Government of India. Child labour on contract farm earns approximately Rs. 40 per day. The average daily wage for child labour in unskilled occupations ranged between 39.26 to 45.35 per day in 2009. Labourers on contract farms are severely overworked and are paid abysmally low salaries. To give an estimate of how low these wages are: for instance in Canada, the minimum wage is CAD80\$/day for an 8 hour working day. Lets reduce the figure to 25% in case of India and say that in India minimum wage should be CDN20\$/day (even for a day longer than 8 hours of work). This is equal to at least Rs. 1000 per day. This figure is nowhere close to what the labour makes on contract farm. On average migrant labour makes CDN3-4\$, women make CDN2-3\$ and child labour makes CDN 1-2\$per day. Also, would CF work if wages increased? I do not think so. India will continue to remain a low wage platform for corporate capitalism, both domestic and global (Das, 2013, 3).

Further, contract farmers employ strategies to extract maximum work output from the labour. For instance, they use the piece-wage system. In piece-wages, the price of the labour appears to come from the producer's capacity for work – i.e. piece-wages give an impression that wages of the labour is dependent on the amount of work he/she can

accomplish (Marx and Engels, 1990, 692). The quality of labour is controlled by the work itself, which must be of good average quality if the piece-wage is to be paid in full. In this sense, piece-wages become the most fruitful source of reductions in wages. Lengthening of the working day, working for long hours become the new norms in piece-wage structures. Further, the work intensity of labour is enhanced through strict supervision. The absence of labour unions and the consistently mobile nature of the labour, presence of extremely low wages that requires the labour to fend for themselves everyday, every minute - makes it practically impossible for them to assert their agency and have any anti-capitalist agenda (Das, 2013, 26).

Contract farming does not just affect labour conditions. It has implications for marginal and small peasants as well. I argue that CF as a system of agrarian capitalist accumulation contributes towards further marginalisation of peasants by way of reverse tenancy. The increasing per hectare capital requirements of capitalist farming practices is the main reason for the move towards reverse tenancy. So whereas the large peasants/contract farmers are able to make use of technology and other resources, it becomes extremely difficult on the part of the small/resource poor/marginal peasants to run expensive agricultural operations. I argue that in general since the late 1990s and early 2000, there has been a tendency in rural Punjab to see evidence that suggests that in fact the small and marginal peasants are leaving agriculture and potentially selling or leasing their land to contract farmers.

I also argue that CF contributes to the marginalisation of small peasant by increasing the cropping intensity. That is, contract farmers invest more per acre of land than the non-contract farmers and this tends to increase the socio-economic difference between contract farmers and non-contract farmers in Punjab. The process where a few farmers become rich and others keep becoming poorer is known as depeasantisation. Therefore CF contributes to the process of depeasantisation.

Chapter 7

Conclusion

7.1 Summary of Dissertation: Corporatisation of Indian Agriculture

The main thesis of this dissertation is that contract farming (CF) signifies an increasing corporatisation of Indian agriculture, and that this process, which is geographically uneven, is mediated by the State institutions at the national and provincial scales. This process has four aspects.

(I) CF is a structure of Corporate-Capitalist Relations of Production and Exchange in the Agrarian Sector

Contract farming as a system of agrarian production is a structure of relations of production and exchange, involving rural farmers and urban big business. CF is a structure of relations among productive capital (both in agriculture and industry), mercantile capital, and finance capital. CF is a way to increase productive consumption of technologies in rural areas produced by agri-input corporations. That is, in CF, a farmer is as much a seller of commodities, as he/she is a buyer of commodities. Also, an agri-input corporation (seeds, crop protection chemicals, etc.) makes its profit by *selling products* to CF farmers, just as a CF corporation makes a profit by *buying products* from these farmers, and not by getting involved with actual agrarian (capitalist) production,

which is land-based and which is very risky. Further, CF helps in creating such conditions that enable agribusiness corporations to access credit from the banks supported by the State. In other words, Corporations such as PepsiCo or A.M. Todd receive the benefits of credit otherwise meant for farmers as direct subsidies. Access to credit has opened the floodgate for consumption of products and technologies. The agro-processing corporations tie up with agri-input corporations. The financial sector directly pays the loan amount to the agri-input corporations, the agri-input corporations deliver the technologies to contract farmer and finally when it is time to buy back the produce from the farmer, the agro processing companies deduct the cost of inputs from the farmers and pay them the remaining amount for the contracted crop.

An important conclusion that emerges from my dissertation is that CF is about capital accumulation in rural India without dispossession of the farmer - without disturbing the farmer-land relation. In other words, CF not only exemplifies that accumulation can happen without dispossession, it also shows that accumulation is getting centralised. The centralisation of capital is best reflected in the way CF actually operates on ground. It makes use of scattered plots of land across the province and assist farmers in growing crops at a cost of production that assumes an economy of scale and operates as if it is one big parcel of land. The process in which CF works is a contradictory one. For instance, planned overproduction by contracting firms indicate that the goal of their firms in such situations is to obtain a larger share of growing market by

reducing prices and lowering profit margins so that small corporations/farmers would have trouble surviving even during the expansion of the market.

(II) Indian State is a major condition of existence for CF

As a structure of multiple relations of production and exchange, CF has an important condition of existence: the State. The capitalist Indian state has been creating conditions for 'neoliberal agriculture' (Oya 2005, 127) which are conducive to and which provide the economic-political context for contract farming. Indeed, the state has been *directly* promoting contract farming. This dissertation sheds light on the class character of the Indian State as it is manifested through its role in contract farming. Increasingly, such policy choices and regulatory frameworks are being adopted as are governed more by the needs of the agribusiness corporations than national development priorities, i.e. policy-making in the interest of the vast majority of the population (the working masses who are struggling to eke out a living). It is thus being termed as an era of neoliberal governance (Reed and Mukherjee-Reed 2012), where the state is left with a set of vaguely defined core functions, e.g. to 'enable the market' and 'provide a favourable environment' for private investment (Oya 2005, 129) and prominence is given to non-state institutions of power to regulate corporate governance. Using material from the National Five Year Plans, I argue that the focus for agriculture has been shifted from food self-sufficiency towards production of food (and non-food items) for export purposes and that the priorities of the Indian State are changing towards involvement of more agri-corporations

in 'developing' Indian agriculture. In other words, there is a definite shift towards corporatisation of Indian agriculture in the vision of the Indian State; it is a tendency rooted in the structure of class relations. For instance, the New Agriculture Policy advocates for adequate and timely supply of 'agri-inputs for the farmers'. The problem with this is not entirely that the agribusiness capitalist class is a beneficiary of state policies, but more importantly, that a few corporate giants are controlling the means of production that are vital for agriculture development. Further, the Government of India's National Policy for Farmers envisages a new 'breed' of future farmers who would prefer to work with corporate players in the agri-industry, trade in air conditioned spaces, and not deal with the middlemen (small-scale traders) or in the dusty and sunny local agriculture *mandi*. In all these the idea is to encourage avenues for corporatisation of agriculture value chain.

I also argue that specific institutional reforms have been made to promote contract farming as a model of agribusiness development. For instance, agrarian market reforms now accommodate private players in selling and buying of agricultural produce. The amendments in the Marketing Act have also incorporated contract farming to include corporations that would prefer to deal directly with the farmer. Further, reforms in the banking sector have enabled the transfer of funds to agribusiness corporations in the name of 'agriculture development'. When the State channelizes its subsidies and other funds towards corporations, then theoretically they have less money for irrigation, seeds, fertiliser subsidies for small peasants. There is a clear class bias in the way the State

operates. I further argue that such changes are also being introduced in the way agriculture research and development is being carried out in Indian Agriculture Research Organisations that is aligning itself with the interests of the agri-corporations. In other words, such research will be promoted by a research organisation that will lead towards making more profits for the corporations. An important contribution of my work is towards looking at the agency of the state (Das 2007). It argues that it is the bourgeoisie – or its fractions, which are connected to farming -- that shapes agrarian policies of the state. I show how state officials operate, more or less, as agents of capitalist development, creating conditions that enable big business capital to penetrate Indian agriculture. State elites often represent the 'worst face of state power' (Das, 2007:413), for they form an alliance with the economically dominant classes and push for such policies that would produce benefits for capital directly, some of which are shared with the state elites. In the dissertation, I deconstruct the myth of neutrality of the Indian State and show how capital and State interact towards creating policies that favour the agri-corporations.

(III) CF is a dialectic project

The CF as a relatively new political-economic project is distinctively dialectical. While CF has become a contingent conduit through which several modern mechanical and biological technologies have been introduced, such introduction has a class bias. As well, the logic of the operation of the CF unequally affects the conditions of working peasants and workers. In my dissertation, I assess the class character of CF specific technologies. Technology is not socially neutral (Das 2002; Lioudakis 1997; Byres 1981)

and it needs to be conceptualised in a way that its real impact – impacts on different classes -- is not obscured. I argue that there are strong limits to how far the technological changes can become widespread in Contract Farming operations, (or indeed in rural areas as such). Indeed, the major beneficiaries of the use of technologies in the Punjab are the capitalist farmers and the corporations that sell them. It is clear that the use of these technologies helps the big corporations in two ways - (i) Use of biochemical technology compresses the turnover time of capital (Henderson 1998).

(Henderson 1998). For instance, quick maturation of seed varieties has provided opportunities to the agri-corporations to escape the obstacle that nature normally imposes on production. (ii) Use of technology reduces the uncertainties associated with agricultural production, which is nature-dependent. In other words, natural obstacles to capital accumulation (waiting time while the nature does its work) become an opportunity for agro-corporations to invent technologies for capital accumulation (Henderson 1998). For instance, R&D for seeds, development of seed, its germination, its production time, etc. is all controlled by a few agri-corporation to reap the maximum benefit from the entire value of food chain (Shand 2012; Shiva 2012; Shiva 2011; Shiva 2007a; Shiva 2007b). When a few agri-corporations are allowed to monopolize the world's food supply, the societal benefit of Contract Farming Technologies becomes limited. I briefly touch upon the question of food sovereignty in a context where the state itself operates as an agent of a few agribusiness corporations (Akram-Lodhi 2013; Patel 2009; McMichael 1992;)

(iv) CF has implications for small / marginal farmers and labour

The work on labour and its relationship between CF is an initial attempt to bring into forefront the conditions of labour on contract farms. The work presented in this section is by no means conclusive. However, as I have already indicated at the beginning of chapter 6, the aim of the chapter is to highlight a trend that with time, with the increase in CF operations, will show qualitative impact on labour and labour process.

What makes contract farming distinct from non-contract farming - also done by capitalist farmers, comes from the fact that India's economy is getting closely linked to the world economy. Increasingly, such policy choices and regulatory frameworks are being adopted that are governed by the needs of the global competitiveness rather than national coherence. CF makes an interesting case. I argue in the dissertation that corporate capital undertakes contract productions because in this way they can excuse themselves from dealing with labour issues. They can also excuse themselves from directly exploiting the labour. It is thus the agrarian capital in the form of contract farmer that gets locked in the situation and has to deal with labour instead. Here, I specifically look at a hallmark concept of contract farming (popularized by advocates of CF) - 'fixed buy-back rate'. I argue that even before sowing the seed, contract farmer is aware of the fixed profit that he will make on the contracted production. In other words, the contracting corporation attaches value to each component while calculating the cost of production for contract farming - and thus assigns a value to 'wages paid to the labour'.

Therefore, a contract farmer prefers to employ the cheapest labour⁵² in the form of migrant labour (Chand 1998; Avasthi 1997), women (Singh 2001) and children (Singh 2003; Sharma 2001; Singh 2001) - in order to reduce their cost of production. Wages vary depending on the kind of work labour does. Labour on contract farms are paid according to piece wages (Gidwani 2001; Baland, Dreze, and Leruth 1999). Labor on contract farms is severely overworked and is paid abysmally low wages. India continues to remain a low wage platform for capitalism - domestic and global (Das, 2013, 3).

An important phenomenon that emerged during the time of adoption of Green Revolution technology in India's Punjab was reverse tenancy. Scholars have written extensively about reverse tenancy and have argued that the increasing per hectare capital requirements of capitalist farming practices has been the main reason why poor peasants were unable to continue with agriculture operations and instead preferred to either sell or lease out their land to middle or rich capitalist farmers (Sucha Singh Gill 2005, Brar and Gill 2001; Gill and Gill 1990; Gill 1989; Singh 1989). In this dissertation I argue that CF as a system of neoliberal agrarian capitalist accumulation has implications for marginal and small peasants as well (Das 2013; Patnaik and Moyo 2011; Saxena 2010; Patnaik 2007a). I also add that CF contributes towards further marginalisation of peasants by way of reverse tenancy. So whereas the large peasants/contract farmers are able to make use

⁵² In the academic literature, there is little discussion on use of vulnerable population like migrant labour, women and children on contract farms, specifically. However, there is much emphasis on the employment of cheap women labour in manufacturing operations in 'free trade zones' (Cravey 1998) or employing of women in managerial roles under global capitalism (Mullings 2005). The category of migrant labour has also been discussed in the literature (Silvey and Lawson 1999).

of technology and other resources, it becomes extremely difficult on the part of the small/resource poor/marginal peasants to run expensive agricultural operations. I argue that in general since the late 1990s and early 2000, there has indeed been a tendency in the rural Punjab suggesting that the small and marginal peasants are leaving agriculture and potentially selling or leasing their land to contract farmers. In other instances where the land is not being sold or leased out, there is evidence that suggests that socio-economic difference between contract farmers and non-contract farmers in Punjab is on the rise. The process where a few farmers become rich and others keep becoming poorer is known as depeasantisation. Therefore CF is contributing to the process of depeasantisation in the Punjab.

Section 7.2: Contribution to Academic Literature

My work on corporatisation of Indian Agriculture intersects with many fields of study. This section has been divided in two parts. First, I discuss the literature that I explicitly make use of and show how much work contributes to that body of literature. In the second part, I discuss the implications of my research for the wider literature.

1. The Indian State

The Marxist discourse on the State sheds light on the state as a complex social entity with multiple aspects. Marxist theories of the capitalist state deal with relation of the state to class and class struggle. According to the instrumentalist theory of the state, the state is merely an instrument in the hands of the dominant class. The origin of this theory can be traced to Marx and Engels, who characterised the state in the communist

manifesto as 'a committee for managing the common affairs of the whole bourgeoisie'. These statements have been taken to mean that state action is under the direct control of capitalists and is utilised to maximise their long-term and common interests and/or the special interests of specific groups of capitalists. (Das, 2006, 64). In the structuralist theory of the state, the state's class character and functions are examined in terms of the constraints on state actions imposed by the capitalist class structure (Das 2006, 66). The global role of the State is maintaining the unity of a social formation divided into classes. This role corresponds to the political interest of the dominant class and conditions its other functions including its economic functions (eg creating conditions to counter the falling rate of profit) (Das, 2006, 67). According to Poulantzas, the state functions differently for different classes. For the dominated classes, its function 'is to prevent their political organisation.' it performs this function by presenting itself to the working class as representing the general interests: the state gives to the economic interest of certain dominated classes guarantees which may even be contrary to the short-term economic interests of dominant classes, but which are compatible with their political interests and their hegemonic domination (Das, 2006, 67). According to Offe, there are two forms of state intervention that aim at recommodifying capital and labour allocative and productive. Thus capitalism needs an interventionist welfare state to create conditions for accumulation, but the welfare state undermines the capacity of the state to create these conditions. This is known as Offe's paradox. While capitalism cannot coexist with, neither can it exist without the welfare state (Das 2006, 73).

There are two views of the state that take agency more seriously - class struggle and state centered theories. Crucial to political class struggle theory is Poulantzas' discussion of how state policy is established to favor the long-term interest of the bourgeoisie (Das 2006, 75). The state is always divided by class contradictions. On the other hand, state policy also depends on the relation between the state and the dominated classes because state power is 'founded on an unstable equilibrium of compromise' (Das 2006, 75). Poulantzas says - that the state is therefore neither an instrument nor a subject, but a relation. More precisely, the state embodies a power relationship between classes and among class factions (Das 2006, 75). While the class struggle theories emphasize the agency of the dominated classes, they do not deal with the agency of state actors. The latter is the subject of state-centered theories which view the state as an autonomous actor and where state functions are given more importance than the power of capital in specific circumstances (Das 2006, 79)

There is also substantial discussion on the role of the State in peripheral countries. In peripheral capitalist countries, capitalism coexists with various forms of pre or non-capitalist social relations. This implies that there can be more than one dominant class in these countries and a coalition of dominant classes 'controlling' state power (Das 2006, 83). In these countries, class relations are also inevitably influenced by imperialism, which, itself, is a form of class relations at the international scale. Therefore the nature of state power in peripheral countries cannot be determined from abstract ideas about state theory, but has to be determined at a more concrete level. It must also be said that the

nature of the state in 'advanced' capitalist countries cannot be fully appreciated in isolation from imperialism, i.e. in isolation from the geographical contexts in which states operate.

Based on this understanding of how the State has been looked at within the Marxist tradition of State Theory, through this critical study of contract farming I contribute to the understanding of relation between development of agriculture and State. I argue that Development of agriculture is not uniform across the country. Factors such as agro-ecological limitations, property relations, etc., influence the ways in which a given technology works (Das, 1999, 173). According to Patnaik (1997, 172), in the 1960s (and indeed since the independence), the development economists and planners were primarily concerned with low rate of agriculture output having an adverse impact on the expansion of industrial growth. It was, therefore, the State's endeavor to create conditions that remove obstacles to Agrarian Economic Development (Das, 1999, 175). As a result, the State in India (as in many other less developed countries) has intervened at the two levels of the economy: property relations (e.g. land reforms) and productive forces - (e.g. spread of Green Revolution technology) (Das, 1999, 175). Adoption of the new high-yielding technology directed towards progressive farmers and progressive areas of the economy was thus seen as a way out of severe food grain crisis in the 1960s (Bharadwaj 1997, 200). The pursuit of a 'positive' price policy, wherein the incentive role of prices was prominently underlined, marked a basic change in agricultural strategy (Bharadwaj 1997,

200). The state-supported technological change – the Green Revolution—ran its course.

Apparently, an additional major impetus was required.

Since the beginning of the Neoliberal era in the 1990s, the Indian State (as in many other developing economies) has again intervened. This time the intervention is again at two levels of economy - (i) Production Relations and (ii) Productive Forces. However, what makes the current phase of economy distinct from the previous one is that active interventions are being made on behalf of capital, and especially big business (domestic and foreign). For instance, the Indian State is creating conditions conducive to corporate penetration in agriculture, impacting the production relations - as can be observed in case of CF. Similarly, in order to create conditions facilitating agrarian development of productive forces via CF, the Indian State has introduced many reforms that are facilitating agri-corporate take-over. For instance, reforms in the financial sector are meant to facilitate easier flow of credit from one corporate house to another 'agri' corporate house. It should however be noted that much of the access to credit is going from the banks directly to the agri-input corporations for providing agri technologies to contract farmers. In other words, the agriculture related subsidies that were earlier meant for farmers are now being channelised to the agri-corporations - that are indirectly being consumed by large farmers. In other words, the Indian State is subsidising the rich farmers and the agri-corporations and thus impacting the development of production relations and productive forces in the interest of the capitalist class.

Apart from promoting the development of productive forces via CF, the state has also impacted class relations. While the State has withdrawn from welfare provisions for poor peasants and workers in rural areas, it has taken active steps to promote agrarian and agribusiness capital accumulation at all levels, from local/regional to national/international. The other side of the coin of 'state withdrawal', therefore, is *active intervention* on behalf of capital (Das 2007, 353). Such interventions on behalf of capital are often mediated by the planning institutions that take it upon themselves to pursue specific economic agenda (Rao 1997, 129) that are often dictated by the imperialist institutions such as the World Bank or IMF. Therefore it becomes difficult to separate such actions of the planning agencies from the political economy actions ongoing at the world scale (Patnaik 2010). Through my discussion of the National Five Year Plans and three policy discussions, I argue that since the 1990s and particularly from the year 2000, the Indian State has been actively creating conditions that would promote the corporate class relations in agriculture. Further on, the reforms that have been introduced in the marketing of agriculture produce also show that changes are being made to accommodate private and corporate players to easily buy produce from local farmers. Patnaik (2007a, 219-220) also argues that the entry of TNCs represents the attempt to subordinate small producers to global capital (Patnaik 2005) - to the extent of displacing the peasant from their land. Patnaik (2005) calls this accumulation by encroachment.

The intervention of the Indian State is quite evident in the range of functions it has come to adopt in the recent past. In the pre-contract farming phase, the role of the

state was more 'developmental' in nature - food self-reliance and farmer protection were on the agenda of the Indian State. Agribusinesses had limited role in the way state was operating. However, now, according to Nanda (1995), the state has become a 'transnational state', and the internationalisation of agribusiness impedes the ability of third world states to formulate self-sustaining and pro-poor agricultural policies. Increasingly, those policy choices and regulatory frameworks are being adopted that are governed by the needs of the global competitiveness rather than national coherence (Nanda 1995, PE-20). That is, the national priorities are subordinated to the international market dynamic. Thus, in effect, contracting develops only when there is a diminished role of the state in agriculture - or when the state fully adopts the neoliberal programme of the SAP (Oya 2005, 129; Singh 2002, 1624;).

Until recently, India used to strictly control its trade in agricultural products and insulated its peasant producers from the harsh impact of adverse movement in international terms of trade. In India this is now changing, as the agro-export thrust gets under way (Patnaik 1999, 406). India's 'food-first' regime was replaced by an exports first regime to some extent from the partial trade liberalisation of the end-eighties, and by 1991 the promotion of agro-exports was declared to be an official policy. With the thrust towards agro-exports and rising of the ceilings on exports of a number of commodities, a marked impact is observed on cropping patterns and on domestic prices since 1991 (Patnaik 1999, 407). Contract Farming exemplifies this shift towards agro-exports.

Drawing on the idea of flexible accumulation in agriculture (Watts 1992, PE92),

many scholars argue that what makes the new phase distinct from the previous phase is that there has been an international division of labour within the agro-food (Borras 2009, 6). The primary emphasis is now on the promotion of an agricultural export-led strategy for enhancing rural accumulation (Borras 2009, 7). Of course, this could be achieved in many ways. CF is one of these.

2. Agrarian transition/Agrarian Question, the land question and labour

Agrarian Transition Debate concerns changes within the agrarian sector at the level of both property relations (or social relations of production) and productive forces. It refers to that moment in the development of capitalism in a country when it interacts with labour in agrarian sector. At that moment, the question that emerges is - how is labour subsumed under capital in the 'agrarian sector'? In other words - is there enough technological advancement in agriculture sector that labour is producing relative surplus value or is it that there is little technological advancement so that labour is producing absolute surplus value by working long hours on less wages? Thus the agrarian question has been whether the country in question is capitalist in its mode of production or whether it is still under the realm of feudalism. Classically, this has been the agrarian question for all developing countries, including India. In India, this debate culminates into the historic Mode of Production Debate⁵³ that argues over years whether India is a

⁵³ The 'Mode of Production Debate', henceforth MOPD, is in the heart of Agrarian Transition Debate in India. MOPD was pursued over the years vociferously by scholars like Ashok Rudra, Gunder Frank, Utsa Patnaik, etc. One of the primary emphasis of this debate has been - how is surplus labour extracted in India? Whether the production is carried out by wage labour or not? That is, how does one characterise the Indian economy? Is it Capitalist or semi-feudal? The exchange between the scholars

capitalist State or a semi-feudal State? The debate is still on.. Thus the second body of literature that my work contributes to is on the issue of Agrarian Question. My work looks at capitalism at a specific time and place and argues that there is penetration of corporate capitalism in agriculture that is mediated by the State and the debate on agrarian question needs to address both.

Bernstein is of the opinion that the patterns of agrarian transition have been made irrelevant and redundant by globalisation (Byres, 2002, 64). Quoting Bernstein, Byres says - "...The agrarian question now is very different from the agrarian question then, because of imperialism/globalisation. What imperialism in its classic phase failed to do, that is industrialise the periphery, it will in its globalisation phase deliver...Thus, for global capital, there is in fact, no agrarian question..." (Byres 2002, 65). Contrary to Bernstein's views - Patnaik (2011, 11) argues that -classical agrarian question has not

was effectively summarised by Alice Thorner (1982). In this article, Thorner highlights the key arguments made by Ashoka Rudra, Utsa patnaik and many other scholars. An important point of contention in the debate was: who is a capitalist farmer? Patnaik claimed that characteristics of a genuine capitalist is not merely one who can appropriate surplus value in terms of wage labour but who can also accumulate and reinvest the surplus value in order to generate more surplus value on an ever expanding scale. Therefore, the capitalist in agriculture can be recognized by assessing the degree of capital intensification' (Thorner 1982, 1964). Gunder Frank (Thorner 1982b, 1966) retorted back at Patnaik claiming that it is not necessary that surplus value will be invested at the same spot where it was produced. So as such, it nullifies Patnaik's claim that capital needs to be re-invested in order to get back more surplus from agriculture. While discussing the case of Eastern India, Amit Bhaduri opined that the dominant character of existing production relations in West Bengal could best be described as semi-feudal in that "...they have more in common with classic feudalism of master-serf type than with industrial capitalism..." (Thorner 1982b, 1966) Presence of share cropping, perpetual indebtedness, two modes of exploitation - usury and ownership in hands of the same economic class - are just few of the instances, that show that India is in fact, semi-feudal (Thorner 1982b, 1966). Ashok Rudra added that India witnessed characteristics of feudalism in agriculture - for instance, scarcity of actual labour supply in peak seasons, landowners preferring to bind labour/tenant by debt etc. As such, within academia, the MOPD has been an inconclusive debate. In this dissertation, I however argue that Indian agriculture is indeed not just capitalist but corporate-capitalist in nature.

ended. However, what has happened is that the thrust of free trade in agriculture has opened up lands of the Global South to meet the demands of the North - either on contract or via direct acquisition. In other words, the agrarian question is now about 'land' (Patnaik and Moyo 2011). Indeed, much of what goes on in the name of agrarian political economy has been in the form of land grab studies; the latter have been partly inspired by the literature on dispossession (Harvey 2006; Harvey 2003) or encroachment (Patnaik 2005).

Through my work, I show that capital accumulation happening at the National scale via contract farming has no necessary relation to land acquisition or dispossession. The furor over frequent peasant dispossession across the country (specific case being the setting up of chemical hub in *Nandigram* and *Singur*) (Dam 2007; Nigam 2007) which cost the 34 year old invincible "Left Government" - CPI(M) loose power - made the Indian State sit up. There was a general consensus that no one wanted to disturb the land-peasant relation. In this sense, Contract farming in India, thus, becomes a crucial example to show that capital accumulation can, in fact, take place without dispossession of land. In other words, contrary to what Patnaik (2011) argues, the new agrarian question in Global South is not necessarily about land, although the land question remains an important question, given the dependence of millions of people on land.

It is impossible to look at the agrarian transition in India or elsewhere without looking at the class character of the state (Das 2001, 162). Through my work, it becomes clear that it is the state that creates the conditions that facilitate CF among the rich

peasants. In other words, the agrarian question in Global South has to include analysis of the State and how the State mediates the relationship between capitalism and agriculture. As I have already discussed in the chapter on implications of technological change, CF introduces such technological changes, that increases both labour and land productivity thus showing evidence that labour is, in fact, producing relative surplus value. But there is also evidence that suggests that along with the use of labour-saving technology, capitalist farmers also make contract farming workers work long hours, for low wages.

Further, it is also impossible to look at agrarian transition in India or elsewhere without considering the disarticulation theory of trade development. Increasingly, the food sector is no longer seen as a part of basic need satisfaction but has instead become a source of inputs for transnationalised agro-industry (Akram Lodhi 2007, 270; Nanda, 1995, PE-21). Further, as CF involves the cultivation of high-value niche food and non-food crops, one witness a disconnection between what is getting produced, and what the majority of the population at the margins of society need. Das refers to this as "use fettering" (2001, 167-168). In other words, the agrarian question in contemporary India has to deal with the issue of irrational deployment (use) of resources, i.e. irrational from the standpoint of preferences/needs of the vast majority of the population. Further, the process of 'use-fettering' must be situated in relation to imperialism (international-scale accumulation), a point I agree with but one I have not particularly studied.

Finally, thinking about agrarian political economy more broadly, agrarian question must pay attention to labour. Discussion on the implications of modern capitalist

development in agriculture via CF on workers and working peasants has been initiated in this dissertation. In other words, I show that CF has material implications for those at the lowest rung of economic ladder. For instance, CF is often seen as a strategy for increasing employment for women (Singh 2003). This is because CF advocates like the World Bank are misappropriating 'gender' in its policies (Mies 1995). Women are introduced to commodity production but they are not defined as workers. They are defined as housewives who are 'empowered' enough to get involved in some money earning production to supplement the male breadwinner's income (Mies 1995, 113). A few scholars have written how feminisation of labour force in agrarian commodity production has impacted the traditional household relations - at times to the advantage of women (White 1997, 105; Barrett and Browne 1996, 54; Porter and Phillips Howard 1995, 69; Watts 1994, 67–69; Carney 1988, 335). However, the implication of introduction of commodity production on women does not go beyond the changes in gender and household relation of women worker. In my dissertation, I argue that women, child and migrant labour provide low wage platform for producing the high value niche food and non-food crops. My works attempts to blur the difference between women, child and migrant labour category and instead highlight the commonalities between their ongoing struggles. In other words I see the workers on farm not as individuals but rather as members of working class.

A new component of my work on labour deals with the issue of labour control on agriculture farms. I argue that with the beginning of CF related activities, there has been

an introduction of labour control tactics - which otherwise have been largely absent in Indian agriculture so far. Scholars have discussed various mechanisms of labour control that have been employed by owners to manage and discipline the labour (Kelly 2013; Kelly 2002; Kelly 2001), particularly in industrial settings. There is also discussion on labour's agency in global production networks. For instance, "role of labour in agri-export zones of cut flowers and bananas shows that the governance of inter-firm linkages, is always mediated by the specific social relations of local production and labour control regimes" (Coe and Hess 2013). Recent work on labour control in the context of a South Asian country like Pakistan argues that in the housing construction industry, workers are subordinated to the employer not just economically but that there are extra-economic forms of control as well that conceive of contractors as patrons (Akhtar 2011, 161). However, so far there has been little discussion on how the corporate induced labour process but in a non-export zone/non-industrial setting influences labour control. This study makes a very modest attempt to fill that gap.

(3) Ideology of Development:

An underlying theme in my work has been that development – promise of development – can be used as ideology. More specifically, the advocates of CF use the idea of development to perpetuate/popularise CF. CF is increasingly being presented as the great new hope and the way out of the morass in which Indian agriculture now finds itself, and is being actively promoted by major international donor agencies as well as by multinational companies that stand to gain from this process (Setboonsarng and ADBI

2008; The World Bank 2007; World Bank 2004; The World Bank 2004; World Bank 2003). The opening page of the ADBI (2008) report says -

"...The Millennium Development Goals, the blueprint for development intervention adopted by UN member countries, highlights global partnership in development as one of the main goals toward poverty reduction. Among the recent consequences of globalization is the increased coordination of food production. With a majority of the world's rural poor engaging in agriculture, agricultural globalization is arguably the single most important global partnership for poverty alleviation..." (Setboonsarng and ADBI 2008, 1).

The quote above summarises the dominant ideology of development that assumes that globalisation of agriculture assists in poverty reduction. Thus, policies designed to alleviate the worst effects of poverty, insistence on 'good governance' (through decentralization for example), etc. are introduced - in the pretext of development (Brown 2005, 113). However, what does get developed is Corporate Capitalism.

The post-developmental perspective on agriculture seeks to provide alternatives to the dominant neoliberal model for agriculture and trade. For instance, in 1993, *La Via Campesina* - the Peasant Way, an organisation dedicated to protecting the needs of the world's peasants and small-scale farmers was founded (Akram-Lodhi 2013, 150). The organisation offers a vision for future of agriculture that is in opposition to World Bank's idea of agriculture development. De-globalising food, rebuilding local food economies

and food sovereignty are part of this vision. An alternative approach such as this sees agriculture development as a system of power relations, which produces development as a series of 'situated knowledge' - e.g. - sustainable food communities in specific neighbourhoods, and so on. I have already discussed my critique of the food sovereignty movement in the previous chapters and argued that in the era of corporate capitalism in agriculture, food sovereignty and the idea of farmer's right to seeds and right to produce food makes little sense.

In this dissertation, I further argue that the advocates of CF pay attention to smallholder participation (Anim 2011; Finan 2007; Dev and Rao 2005; Kirsten 2002; Glover 1987) in agriculture. But on ground, the agribusiness corporations support commercial and entrepreneurial farmers who are not smallholders in India. In other words, CF has become an ideology of development that is governed by the interests of the corporate capitalist class.

(4) Economic Geography

Space is central to the understanding corporate interventions in agriculture. Neilson and Pritchard (2009, 27) argue that economic geographers offer alternative towards understanding, theorizing, researching and framing the emerging global processes. My work on CF, also contributes to this wider field of Economic Geography that seeks to understand the global process of CF as manifested in the region of Punjab in India.

Within Economic Geography, there has been an ongoing debate towards

understanding the linkages between the first world consumers and third world producers. Understanding 'Commodity chains' has been one such endeavour. The basic premise of this approach has been to look at capitalism as a commodity exchange system that serves to conceal the conditions of commodity production (Coe, Kelly, and Yeung 2007, 87). In 1994, drawing on the work of previous scholars, Gereffi argued that industrial and commercial capital have promoted globalisation by establishing two distinct international economic networks: producer-driven and buyer-driven (Gereffi 1999). In a buyer-driven commodity chain, production is generally carried out by tiered networks of third world contractors that make finished goods for foreign buyers. Gereffi (1999, 2) sharply observes that companies relying on buyer-driven models are actually part of the new breed of 'manufacturers without factories', that separate the physical production of goods from the design and marketing stages of the production process. Thus, according to Neilson and Pritchard (2009, 7) the purpose of Global Commodity Chain (GCC) analysis has been to enquire the entirety of a commodity system: following the trajectory of a product from its conception and design, through production, retailing and final consumption. My work on CF, plugs into this body of literature. It does not discuss production, retailing and consumption of a specific commodity. But it does provide a detailed analysis of how export-oriented production takes place under conditions of contract farming. Though I do not adopt the language of global commodity chain analysis, my intention is also to understand capitalism as exchange as well as production relation.

Neilson and Pritchard (2009) argue that financial markets have become a form of agro-food industry governance. And it is important to understand how these various forms of governance intersect with institutional environments - especially in case of tea and coffee production in South India that has had a long history of increasing concentration of business in a few hands. And that this is being made possible by increasing financialisation within the agro-food sector. In other words, financial markets control the brands that have become leading weapon in the struggles between multinational corporations. Their argument is also very geographical in nature as it focuses on the regional identity of the places that influence the value chain production of tea and coffee. This dissertation on CF does talk about role of finance capital in promoting contract farming production. It also talks about how access to credit is resulting in the concentration and centralisation of capital. However, this does not talk about finance market as a form of governance. This is an interesting area to explore and one that I have identified as a potential area for future research.

In 2002, drawing from the previous work and its critique of world city network, global commodity chain and global value chain, Henderson et al., discussed their idea of the global production networks (GPNs). They argue that in contemporary capitalism, reproduction of global production networks require such organisational dynamics that go beyond territorial control. Thus, analysis of GPN requires a 'non-territory' based form of control: the idea of Governmentality, that incorporates a variety of actors who impact a production network such as, state agencies, NGOs, trade unions, health organisations and

so on. Further on, the GPN framework also draws from Marx and Harvey's understanding of internal contradiction of capitalism: specifically the aspect that capital is sent abroad so that it can be employed at higher rate of profit in a foreign country (Harvey, 1982, 434). For instance:

"...Competing in today's global economy is no longer just about finding a niche in the paradigmatic global cities; it is as important for lead firms and their GPNs to search for new sites beyond these cities for production and service activities..." (Coe et al 2010, 144)

In other words, according to the GPN framework, the relocation of a firm to a foreign location can be attributed to the falling rate of profit or that there is indeed crisis of production and market in imperialist countries. Though the GPN analysis does not explicitly deal with this issue, this aim is to highlight the fact that decision to locate and relocate not only has economic but also spatial justifications.

For instance, while discussing the case of transnational corporations within the GPN framework, Yeung (2009, 197) draws upon a relational view to illustrate how urban and regional development is increasingly a "globalizing" phenomenon. Yeung argues that TNCs should not be seen as autonomous economic agents whose decision making and corporate behavior are same everywhere (Yeung 2009, 203). Instead, TNC should be seen as [internally] embedded in highly differentiated institutional configurations playing a crucial role in mediating urban and regional development. In other words, the GPN approach seeks to provide a meso-level theorization of the geographical and

organizational configuration of TNC activity (Yeung 2009, 217). In the context of this dissertation, it is important to mention that even in the context of CF, the fact that CF operations are unevenly spread in the country show that geography (politics and economics) of some states matter more than others. For instance, advocates of CF argue that 'growing crops according to the agro-climatic specifications of a region' along with 'progressive' farmers' is a major reason why Punjab is a crucial center for CF (World Bank 2003).

What the GPN approach calls - spatially grounded and strategic coupling approach of understanding regional development; I call spatial-political-economy and relations of production between corporations and state at a place/space (at both provincial and national scale). Contract farming is not happening in vacuum. Space is intrinsic to the evolution and spread of CF operations

Section 7.3: What is to be done?

People who are directly suffering in the agrarian crisis are the labour and the poor peasants. The intensifying corporate capitalist relations that are being mediated by the state have caused the crisis. Therefore, the solution to the crisis has to be imagined at multiple scales (Das 2013b).

1. Stop Corporations

We need to understand agrarian crisis in less nationalistic and less farming-specific ways. Agrarian crisis must not be seen outside of the overall framework of

capitalism as a global class relation (Das 2013b). Through the case of CF, I have argued that increasingly farmers are relying more on agri-inputs from the corporations and losing control over the production process. Such dependence on a few corporations will prove detrimental in the long run.

2. Increase Minimum Wages

Labour on farm should be given a wage that is socially necessary to reproduce them which will include proper education for children, healthcare, and food. The daily wage should increase significantly. State should ensure that the farmers are paying labour the minimum wages as directed by the State.

3. Diversify Small-scale producers

There is a global tendency towards class differentiation, towards concentration and centralization. This process includes a) a process of the expansion of the global working class, which is living a precarious life, b) a process of smaller owners gradually going out of business, and c) a process of some people increasingly controlling more and more of society's material resources. There is a need for more economic strategies that can restore the viability of small-scale production (Patnaik and Moyo 2011). In other words, since class differentiation is inevitable in corporate-capitalist class regime, strategies should be adopted to at least 'slow' down the process of depeasantisation.

4. State to renew interest in protecting Indian Farmers

Given the amount of subsidy that the American and European farmers receive, the ongoing import of cheap agriculture products from advanced countries is unfair for

Indian farmers. Advanced countries are able to continue giving very high subsidies and still comply with GATT '94 because they have ensured that 'green box' and other provisions have been written into the agreement, using which they can increase certain new types of transfers to their farmers while reducing the older types, so that the total *de facto* transfer remains unchanged or declines very little (Patnaik 1999, 410). According to Patnaik (1999), the best national strategy is not to subject the livelihood of millions of Indian poor farmers to the threat of such heavily subsidized agricultural imports from rich countries. Also, reliance on import of food grains implies jeopardising food security system of India.

5. Show Resistance

The liberal and radical academia has to show more vibrant signs of articulating resistance and work towards international socialist movement, which corresponds to the interests of the working class i.e., the vast majority of humanity (ISSE, 2009). There is a need to trigger public awareness about issues that concern us all. There is a need to bring out things that are common between the people of this world and not what makes us all different.

Section 7.4: Self - Criticism

I came to Canada as an international student and from the discipline of Geography - which does not equip the students with any critical research tools in India. From that stage to reaching a stage of doing serious Marxist work – it has been a tall order to climb. I am still learning so much more about Marxist philosophy, methodology, political

economy that I feel that with this dissertation, I have merely scratched the surface. But it has been a huge learning curve.

Further, if I had consciously prepared more before going for my first fieldwork, I would have generated more valuable information on labour process in contract farms. Also interacting with the labour on agriculture farms clouded my thinking and focus and that impacted some of the data collection process.

To add to my limitations, I undertook a study of CF, which is at a nascent stage of development. As a result, though my theory suggested that I should be able to see resistance from labour - my fieldwork showed otherwise. Why was it so? Could it be that even labour has bought the development ideology?

Yet another limitation of my work has been a lack of praxis. While wanting to complete a Ph.D., how could I simultaneously work towards making difference in the lives of those labourers? What kind of resources could I provide them with to help them deal with their everyday struggles and resistances? How could I begin a conversation about unionising and asking for better working conditions from farmers when I knew I was unable to provide them with any kind of support?

Section 7.5: Ideas for Future Research

In the course of this work, I developed many ideas that I would like to pursue in future. One of the ideas that I have also proposed for a post-doc fellowship application for University of Waterloo attempts to explore the relationship between State and

Governance. In this dissertation, I examine corporatisation of Indian agriculture that is mediated by the Indian State. The proposed project extends my doctoral work. Conceptually, this project will shed light on the political and governance aspects of business. Empirically, this project will examine the development and scope of Canadian Agribusiness in relation to agribusiness in India. In context of India - there are many civil society institutions that are opposing corporate involvement in matters of food and agriculture (Shiva 2007; DC Online 2013). As well some domestic companies and their political allies also oppose the entry of foreign corporations (Business Insider 2014). In a competitive global environment, how do Canadian Agribusinesses access the Indian market? What might be the role of foreign business lobbies in this process?

Through my dissertation I briefly discussed the role of Foreign Direct Investment and in general corporatisation of agriculture. I would like to undertake a new study on implications of this corporatisation in agriculture. Here, I would like to take a leap forward and empirically and theoretically deal with the issue of imperialism and its role in monopoly capitalism.

Flowing from the previous possible project, another area that can be exciting to explore would be exploring the role of India as a BRIC economy. In a World Bank Report (2011), it is noted that between 2004-2008, global investors have acquired 111 million ha of agriculture land and 75 per cent of this land is in Africa. In 2011, the report states that there has been a 12-fold increase in the amount of agricultural land acquired by

foreign investors. China and the Middle Eastern countries were the first players in the land rush. India is now catching up. This issue offers tremendous opportunities to think through India's 'imperialist agenda'. For instance, many of the Indian corporates are buying land in Sub-Saharan Africa, for purposes of agriculture. I am interested in exploring the role of Indian Agribusinesses in Sub-Saharan Africa? What are the reasons for this? What could be its implications for Indian State and so on?

Another potential aspect that I am quite interested in exploring is to undertake a comparative study of CF between Africa and the Indian sub-continent. Both have colonial past with different trajectories of political economy. It would be exciting to study the differences and what unites the two parts of the world.

Appendices

Chapter III

Chapter 3

Table III.1: Data was used to prepare Map 3.1

Total Area (in Hectares) under Contract Farming in India from 2003-2007			
Provinces	Sum of Hectares of Area under CF (2003-2007)	Total cropped area in Hectares (2003-2004)	Percentage of area under CF to total cropped area
India	425834	190641000	0.22
Maharashtra	134800	22190000	0.61
Madhya Pradesh	17535	19788000	0.08
Andhra Pradesh	860839	12366000	1.96
Karnataka	20350	11450000	0.18
Odisha	7200	8637000	0.08
Punjab	85894	7931000	1.08
Tamilnadu	2228	5316000	0.04

Source: Compiled from – (i) Contract Farming Status, Department of Agriculture Marketing, Government of India 2005; (ii) Lallan Rai, Contract Farming Status in different States, Ministry of Agriculture, 2005 (unpublished); (iii) Contract Farming in India (unpublished internal document, FICCI, 2007); (iv) Sukhpal Singh, Agribusiness in South Asia: A Fact Sheet, Centre for management in Agribusiness, 2007 ; (v) Compiled from the statistics released by Rajya Sabha Unstarred Question No. 1806, dated 29.08.2007, accessed via Indiatats.com as on 24 September 2010.

Table III.2 - Data was used to prepare Map 3.3

State wise indicators of competitiveness and Investment Proposals

States	State Competitive Index (2005)	Infrastructure Development Index (2004)	Index of Agriculture Commercialisation (1997) **	Human Development Index	FDI Approvals (numbers) 1991-2004	FDI approval amount (In Million Dollars) *
Punjab	82.80 (1)	171.92 (1)	170 (1)	0.58 (2)	199 (12)	547
Kerala	67.71 (2)	162.42 (3)	85 (8)	0.65 (1)	325 (10)	349
Haryana	63.25 (3)	133.12 (5)	135 (3)	0.54 (3)	858 (6)	193
Gujarat	60.63 (4)	105.33 (10)	131 (4)	0.50 (5)	1204 (5)	270
Karnataka	56.19 (5)	106.12 (9)	77 (12)	0.48 (6)	2467 (3)	555
Tamil Nadu	49.1 (6)	145.62 (4)	138 (2)	0.52 (4)	2607 (2)	586
Maharashtra	48.77 (7)	106.77 (8)	93 (7)	0.48 (6)	4816 (1)	1083
Andhra Pradesh	46.69 (8)	104.01 (12)	114 (5)	0.43 (7)	1226 (4)	275
Odisha	46.61 (9)	101.45 (14)	65 (14)	0.34 (10)	140 (13)	31
Assam	46.41 (10)	104.39 (11)		0.43 (7)	NA	NA
Rajasthan	38.90 (11)	87.27 (19)	81 (11)	0.29 (12)	341 (11)	76
Madhya Pradesh	36.80 (12)	86.66 (20)	74 (13)	0.31 (11)	242 (11)	54
West Bengal	34.18 (13)	102.09 (13)	85 (9)	0.48 (6)	670 (8)	150
Uttar Pradesh	25.27 (14)	112.04 (7)	106 (6)	0.36 (8)	798 (7)	179
Bihar	22.36 (15)	91.31 (17)	83 (10)	0.35 (9)	49 (14)	11

Source: Modified from Lakhwinder Singh (Fall 2005) Deceleration of Industrial Growth and Rural Industrialisation Strategy for Indian Punjab, *Journal of Punjab Studies*, Volume 12, No. 2.; NABARD (2004) Infrastructure for Agriculture and Rural Development – An impact assessment of investments in rural roads and bridges under RIDF ; **K.J.S. Satyasai and K.V. Vishwanathan (1997), Commercialisation and Diversification of Indian Agriculture, Occasional Paper no. 5, *National Bank for Agriculture and Rural Development*, pp: 28

*The original figures were in Indian Rupees. The currency has been converted to Million Dollars using Oanda currency converter. The Conversion rates have been taken as on 1 may 2004.

Table III.3: Data was used to prepare Figure 3.1 and Figure 3.3

Production of Horticulture Crops in India

Crops	2002-2003		2003-2004		2004-2005	
	Area (in Million Ha)	Production (in Million Tonnes)	Area (in Million Ha)	Production (in Million Tonnes)	Area (in Million Ha)	Production (in Million Tonnes)
Fruits	4.8	49.2	5.1	49.8	5.3	52.8
Vegetables	5.9	84.8	6.7	101.4	7.1	108.2
Spices	2.4	3.8	5.2	4	3.2	4.9
Plantation Crops	3.1	13.1	3.3	9.4	3.1	10.4
Flowers	0.1	0.2	0.2	0.6	0.1	0.7
Others	0.9	0.9	0.1	0.3	0.4	0.4
Total	17.2	152	20.6	165.5	19.2	177.4

2005-2006	
Area (in Million Ha)	Production (in Million Tonnes)
5.9	54.4
7.2	113.5
3.2	5.9
3.2	9.8
0.1	0.8
0.4	0.5
20	184.9

Source: Sathe, A. (2009) Ed. Sustainable Agribusiness: Opportunities and Issues

Table III.4 Data used to prepare Map 3.4

Percentage of Contract Farmers having more than 10 acres of operational land
Profile of operational Landholding of Contract Farmers (in %) in Punjab, 2006

District	Total Contract Farmers	Less than 10 acres	10-25 acres	More than 25 acres	More than 10 acres of operational land
Amritsar	3902	20.41	49.66	29.93	79.59
Bhatinda	2192	14.66	53.33	32	85.33
Fatehgarh Sahib	1140	25	38.46	36.54	75
Faridkot	795	15.38	34.62	50	84.62
Ferozepur	514	19.6	39.22	41.18	80.4
Gurdaspur	2233	32.84	55.22	11.94	67.14
Hoshiarpur	6820	17.25	51.12	31.63	82.75
Jalandhar	1903	10.46	25.36	64.18	89.54
Kapurthala	554	18.52	20.37	61.11	81.48
Ludhiana	1985	18.62	42.16	39.22	81.38
Mansa	1604	19.67	55.74	24.59	80.33
Moga	568	15.38	59.62	25	84.62
Muktsar	430	9.84	54.1	36.06	90.16
Nawanshahar	2718	23.57	46.43	30	76.43
Patiala	2846	25.51	43.88	30.61	74.49
Ropar	2382	47.27	38.18	14.55	52.73
Sangrur	4677	22.47	48.88	28.65	77.53
Total	37263	20.56	46.34	33.1	79.44

Source: Modified from as published in CRID (2008) report on Contract Farming System in Punjab: An appraisal, pp 13, 39-40 (Modified from table 3.4)

Table III.5 Data used to prepare Map 3.5

A crop-wise detail of total number of farmers adopting Contract Farming of different crops during the year 2005-06

District wise and Crop wise break up of Total Contract Farmers in Punjab, 2005-2006

District	Hyola	Maize	Basmati	Sunflower	Barley	Total
Amritsar	1292		2610			3902
Bhatinda	1992				200	2192
Fatehgarh Sahib	890			250		1140
Faridkot	795					795
Ferozepur	514					514
Gurdaspur	1669	462	102			2233
Hoshiarpur	1583	4000	174	1063		6820
Jalandhar	1052	707		144		1903
Kapurthala	554					554
Ludhiana	1604			381		1985
Mansa	1574				30	1604
Moga	568					568
Muktsar	370				60	430
Nawanshahar	113	1749	291	565		2718
Patiala	1410	558	503	188	187	2846
Ropar	630	1435		317		2382
Sangrur	2099		2543		35	4677
Total	18709	8911	6223	2908	512	37263

Source: Modified from as published in CRID (2008) report on Contract Farming System in Punjab: An appraisal, pp 13. It should be noted that the original source of this data is Punjab Agro Foodgrain Corporation (PAFC) Chandigarh.

Chapter IV

IV.1

*Sanctioned 60 Agriculture Export Zones (AEZ)
15 MEGA FOOD PARKS**

S.No	Provinces/State	AEZ Project	District and Provinces
1	West Bengal (JANGIPUR)	Pineapple	Darjeeling, Uttar Dinajpur, Cooch Behar and Jalpaiguri
		Lychee	Murshidabad, Malda, North 24 Pargana and South 24 Pargana
		Potato	Hoogly, Bardman, Midnapore (west), Uday Narayanpur and Howrah
		Mango	Malda and Murshidabad
		Vegetables	Nadia, Murshidabad and North 24 Parganas
		Tea	Darjeeling
2	Karnataka (KOLAR)	Gherkins	Tumkur, Bangalore , Hassan, Kolar, Chitradurga, Dharwad and Bagalkot
		Rose Onion	Bangalore , Kolar
		Flowers	Bangalore, Kolar, Tumkur, Kodagu and Belgaum
		Vanilla	Dakshin Kannada, Uttara Kannada, Udupi, Shimoga, Kodagu, Chickamagalur
3	Uttaranchal (DEHRADUN)	Lychee	Udhamsingh Nagar, Nainital and Dehradun
		Flowers	Dehradun, Pantnagar
		Basmati Rice	Udham Singh Nagar, Nainital, Dehradun and Haridwar
		Medicinal and Aromatic Plants	Uttarkashi, Chamoli, Pithoragarh, Dehradun and Nainital
4	Punjab (FEROZEPUR)	Vegetables	Fatehgarh Sahib, Patiala, Sangrur, Ropar and Ludhiana
		Potatoes	Patiala, Rampura Phul, Muktsar, Ludhiana, Jullunder
		Basmati Rice	Gurdaspur, Amritsar, Kapurthala, Jalandhar, Hoshiarpur and Nawanshahar
5	Uttar Pradesh (SULTANPUR)	Potatoes	Agra, Hathras, Farrukhabad, Kannojo, Meerut, Aligarh and Bagpat
		Mangoes and Vegetables	Lucknow, Unnao, Hardoi, Sitapur and Barabanki

		Mangoes	Saharanpur, Muzzfarnagar, Bijnaur, Meerut, Bhagpat and Bulandshahar
		Basmati Rice	Bareilly, Shahajahanpur, Pilibhit, Rampur, Badaun, Bijnor, Moradabad, J B Phulenagar, Saharanpur, Mujjafarnagar, Meerut, Bulandshahar, Ghaziabad
6	Maharashtra (AURANGABAD)	Grape and grapewine	Nasik, Sanghli, Pune, Satara, Ahmednagar and Sholapur
		Mango - Alphonso	Ratnagiri, Sindhudurg, Raigarh and Thane
		Kesar Mango	Aurangabad, Beed, Jalna, Ahmednagar and Latur
		Flowers	Pune, Nasik, Kolhapur and Sangli
		Onions	Nasik, Ahmednagar, Pune, Satara, Jalgaon and Solapur
		Pomegranate	Solapur, Sangli, Ahmednagar, Pune, Nasik, Osmanabad & Latur
		Banana	Jalgaon, Dhule, Nandurbar, Buldhana, Parbhani, Hindoli, Nanded and Wardha
		Oranges	Nagpur and Amraoti
7	Andhra Pradesh (CHITTOOR)	Mango Pulp & Fresh Veg.	Chittoor District
		Mango and Grapes	Ranga Reddy, Medak and Parts of Mahaboobnagar
		Mango	Krishna
		Gherkins	Mahboobnagar, Rangareddy, Medak, Karimnagar, Warangal, Ananthapur and Nalgonda
		Chili	Guntur
8	Jammu and Kashmir	Apple	Baramula, Anantnag, Kupwara, Badgaum and Pulwama
		Walnuts	Baramulla, Anantnag, Pulwama, Budgam, Kupwara and Srinagar, Doda, Poonch, Udhampur, Rajouri and Kathua
9	Tripura (AGARTALA)	Organic pineapple	Kumarghat, Manu, Melaghar, Matabari and Kakraban Blocks
10	Madhya Pradesh (CHHINDWARA)	Potato, Onion, Garlic	Malwa, Ujjain, Indore, Dewas, Dhar, Shajajpur, Ratlam, Neemuch and Mandsaur
		Seed Spices	Guna, Mandsaur, Ujjain, Rajgarh, Ratlam, Shajapur and Neemuch

		Wheat - durum	Three distinct and contiguous zones :- Ujjain Zone comprising of Neemach, Ratlam, Mandsaur and Ujjain Indore Zone comprising of Indore, Dhar, Shajapur and Dewas Bhopal Division, comprising of Sehore, Vidisha, Raisen, Hoshangabad, Harda, Narsinghpur and Bhopal
		Lentil and grams	Shivpuri, Guna, Vidisha, Raisen, Narsinghpura, Chhindwara
		Oranges	Chhindwara.Hoshangabad. Betul
11	Tamil Nadu (DHARMAPURI)	Flower	Dharampuri
		Flower	Nilgiri
		Mangoes	Madurai, Theni, Dindigul, Virudhunagar and Tirunelveli
		Cashewnut	Cuddalore, Thanjavur, Pudukottai and Sivaganga
12	Bihar (BHAGALPUR)	Lychee, Vegetables & Honey	Muzaffarpur, Samastipur, Hajipur, Vaishali, East and West Champaran, Bhagalpur, Begulsarai, Khagaria, Sitamarhi, Saran and Gopalganj
13	Gujrat (VADODRA)	Mango and Vegetable	Ahmedabad, Khadia, Anand, Vadodra, Surat, Navsari, Valsad, Bharuch and Narmada)
		Value-added onions	Bhavnagar, Surendranagar, Amreli, Rajkot, Junagadh and Jamnagar
		Sesame Seed	Amerali, Bhavnagar, Surendranagar, Rajkot, Jamnagar
14	Sikkim	Flowers(Orchids) and Cherry Pepper	East Sikkim
		Ginger	Sikkim
15	Himachal Pradesh	Apples	Shimla, Sirmour, Kullu, Mandi, Chamba and Kinnaur
16	Orissa (RAYAGARH)	Ginger and turmeric	Kandhamal
17	Jharkhand (RANCHI)	Vegetables	Ranchi, Hazaribagh and Lohardaga
18	Kerala	Horticulture	Thrissur, Ernakulam, Kottayaam, Alappuzha, Pathanumthitta, Kollam, Thiruvanthapuram, Idukki and Palakkod

		Medicinal Plants	Wayanad, Mallapuram, Palakkad, Thrissur, Ernakulam, Idukki, Kollam, Pathanamittha, Thiruvananthapuram
19	Assam (NALBARI)	Fresh and Processed Ginger	Kamrup, Nalbari, Barpeta, Darrang, Nagaon, Morigaon, Karbi Anglong and North Cachar districts
20	Rajasthan	Coriander	Kota, Bundi, Baran, Jhalawar & Chittoor
		Cumin	Nagaur, Barmer, Jalore, Pali and Jodhpur

Ref: *Lok Sabha unstarred question no. 4370. Answered on 22 April 2010. As accessed on 10 September 2011

** Ref: Lok Sabha unstarred question No. 1464. Answered on 9 August 2011. As accessed on 10 September 2011

IV.2 : Distribution of Number of Loan Accounts under Direct Outstanding Finance from Scheduled Commercial Banks

(by size of operational holdings – 1980-81 to 2004-05, in %)

Year	Marginal and Small Cultivators	Big Cultivators
1980-81	70.7	29.3
1990-91	74.6	25.4
1991-92	74.1	25.9
1992-93	73.1	26.9
1993-94	73.9	26.1
1994-95	73.1	26.9
1995-96	73.9	26.1
1996-97	72.7	27.3
1997-98	72.7	27.3
1999-00	71.1	28.9
2000-01	70	30
2001-02	72.3	27.7
2002-03	69.7	30.3
2003-04	71.3	28.7
2004-05	71.4	28.6

Ref: (Ramakumar and Chavan 2007, 61)

BIBLIOGRAPHY AND REFERENCES

- Abdelali-Martini, M., Patricia Goldey, Gwyn Jones, and Elizabeth Bailey. 2003. "Towards a Feminization of Agricultural Labour in Northwest Syria." *Journal of Peasant Studies* 30 (2): 71–94.
- Abegaz, B. "Persistent Stasis in a Tributary Mode of Production: The Peasant Economy of Ethiopia." *Journal of Agrarian Change* 5 (3): 299–333.
- Acharya, S. 2007. "Agribusiness in India: Some Facts & Emerging Issues." *Agricultural Economics Research Review* 20 (2007). <http://ageconsearch.umn.edu/bitstream/47436/2/1-Presidentialaddress.pdf>.
- Adduci, M. 2009. "Neoliberal Wave Rocks Chilika Lake, India: Conflict over Intensive Aquaculture from a Class Perspective." *Journal of Agrarian Change* 9 (4): 484–511.
- Adnan, S. 2013. "Land Grabs and Primitive Accumulation in Deltaic Bangladesh: Interactions between Neoliberal Globalization, State Interventions, Power Relations and Peasant Resistance." *Journal of Peasant Studies* 40 (1): 87–128.
- — —. "Departures from Everyday Resistance and Flexible Strategies of Domination: The Making and Unmaking of a Poor Peasant Mobilization in Bangladesh." *Journal of Agrarian Change* 7 (2): 183–224.
- Adonis, R. 2006. "ChileGAP Standard Gains Ground." *EuroFruit*, January.
- Agrawal, P. 1999. "Contractual Structure in Agriculture." *Journal of Economic Behavior & Organization* 39 (3): 293–325.
- Agriculture Technocrats Action Committee, Punjab. 2005. *Making Punjab's Agriculture Healthier, Profitable and Globally Competitive - A Vision*. Punjab.
- Ahluwalia, M.S. 2007. "Agriculture Strategy for 11th Plan". Speech presented at the National Development Council, Vigyan Bhawan, New Delhi, May 29. <http://www.pib.nic.in/newsite/erelease.aspx?relid=28297>.
- Akhtar, A. 2006. "The State as Landlord in Pakistani Punjab: Peasant Struggles on the Okara Military Farms." *Journal of Peasant Studies* 33 (3): 479–501.
- — —. 2011. "Patronage and Class in Urban Pakistan: Modes of Labour Control in the Contractor Economy." *Critical Asian Studies* 43 (2): 159–84.
- Akram-Lodhi, H. 1996. "Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa - Little,PD, Watts,MJ." *Journal of Peasant Studies* 23 (4): 182–86.
- — —. 2013. *Hungry for Change: Farmers, Food Justice, and the Agrarian Question*. Fernwood Publishing and Kumarian Press.
- Akram-Lodhi, H., and C. Kay. 2010. "Surveying the Agrarian Question (part 1): Unearthing Foundations, Exploring Diversity." *The Journal of Peasant Studies* 37 (1): 177–202.
- Alavi, H. 1975. "India and the Colonial Mode of Production." *Economic and Political Weekly*, 1235–62.
- Alavi, H., and T. Shanin. 1988. "Introduction to the English Edition: Peasantry and Capitalism." In *The Agrarian Question*, 1:xi–xxxix. Zwan Publications.
- Albritton, R. 2000. "Agrarian Capitalism: A Response to Michael Zmolek." *Journal of Peasant Studies* 28 (1): 147–54.
- — —. 2002. "Debate - Theory and History in Thinking the Transition to Capitalism: A Reply to Zmolek." *Journal of Peasant Studies* 29 (2): 125–34.
- Ali, A. 2007. "Population Pressure, Agricultural Intensification and Changes in Rural Systems in Bangladesh." *Geoforum* 38 (4): 720–38.
- Allen, H. 2000. "The Second 'great Transformation'? Capitalism at the End of the Twentieth Century. Thomas,(Ed.) Poverty and Development into the 21st Century." In *In*. Oxford University Press, Oxford.(pp.325-344.
- Althusser, L. 1969. *For Marx*. London, New York: Verso Books.
- — —. 1985. "Ideology and Ideological State Apparatuses (notes towards an Investigation)." In *Lenin and Philosophy and Other Essays (London: Monthly Review Press, 1971)*, 85–126.
- Altieri, M., and P. Koohafkan. 2008. *Enduring Farms: Climate Change, Smallholders and Traditional Farming Communities*. Environment and Development Series 6. Penang, Malaysia: Third World Network.

- Amanor, K. 2009. "Global Food Chains, African Smallholders and World Bank Governance." *Journal of Agrarian Change* 9 (2): 247–62.
- Amanor, K. S. 2005. "Agricultural Markets in West Africa: Frontiers, Agribusiness and Social Differentiation." *IDS Bulletin-Institute of Development Studies* 36 (2): 58–+.
- Ami, D. 2009. Interview with Daljit Ami on Status of Punjab Agriculture on 22 May 2009.
- Amin, S. 1987. "Approver's Testimony, Judicial Discourse: The Case of Chauri Chaura." In *Subaltern Studies V*. Ed. Ranajit Guha., 166–202. Delhi: OUP.
- Analytical Monthly Review. 2010. "Agriculture and the India-U.S. 'Strategic Alliance': The Deadly Danger of Monsanto, Archer Daniels Midland and Wal-Mart." <http://mrzine.monthlyreview.org/2010/amr130410.html>.
- Angrosino, M. 2007. *Doing Ethnographic and Observational Research*. Sage.
- Anim, Francis D. K. 2011. "Small-Scale Maize Farmers' Decision to Participate in Contract Farming: Implications for Integration into the Marketing Chain." *African Journal of Business Management* 5 (13): 5065–69.
- APEDA. 2006. *Export Statistics for Agro and Food Products*. Delhi: Agricultural and Processed Food Products Export Development Authority.
- Araghi, F. 2003. "Food Regimes and the Production of Value: Some Methodological Issues." *Journal of Peasant Studies* 30 (2): 41–70.
- Ariza-Montobbio, Pere. 2010. "The Political Ecology of Jatropha Plantations for Biodiesel in Tamil Nadu, India." *The Journal of Peasant Studies* 37 (4): 875–97.
- Ashok, G., and S. Bathla. 2002. *Institutional Credit to Indian Agriculture: Defaults and Policy Options*. Occasional Papers 23. Mumbai: NABARD (National bank for Agriculture and Rural Development).
- Assadi, Muzaffar. 1994. "'Khadi Curtain', 'weak Capitalism' and 'Operation Ryot': Some Ambiguities in Farmers' Discourse, Karnataka and Maharashtra 1980–93." *Journal of Peasant Studies* 21 (3-4): 212–27.
- Assies, W. 2002. "From Rubber Estate to Simple Commodity Production: Agrarian Struggles in the Northern Bolivian Amazon." *Journal of Peasant Studies* 29 (3-4): 83–130.
- Assocham India. 2012a. *Vision Punjab: Getting Growth Back*. ASSOCHAM.
- — —. 2012b. *ASSOCHAM for Urgent Reforms in Farm Credit*. New Delhi: ASSOCHAM.
- — —. 2013. *Horticulture Sector in India: State Level Experience*.
- Assocham India (b). 2013. *Agri Exports: Potential and Action Agenda*.
- Atasoy, Y. 2013. "Supermarket Expansion in Turkey: Shifting Relations of Food Provisioning." *Journal of Agrarian Change* 13 (4): 547–70.
- Auernhammer, H. 2001. "Precision Farming — the Environmental Challenge." *Computers and Electronics in Agriculture* 30 (1-3): 31–43.
- Aydin, Z. 2010. "Neo-Liberal Transformation of Turkish Agriculture." *Journal of Agrarian Change* 10 (2): 149–87.
- Badal, M.P. 2008. "Budget for the Year 2008-2009 Presented to the Punjab Vidhan Sabha". Budget Speech presented at the Budget Session 2008-2009, Chandigarh, Punjab, March 17.
- Bai, W., J. M. Hao, Q. P. Zhang, and W. H. Guo. 2007. "Impacts of Policy Related to Structural Adjustment of Agriculture on Grain Supply in China." *International Journal of Sustainable Development and World Ecology* 14 (3): 287–98.
- Baland, J., J. Dreze, and L. Leruth. 1999. "Daily Wages and Piece Rates in Agrarian Economies." *Journal of Development Economics* 59 (2): 445–61.
- Baleti, B., T. Johnson, and W. Wolford. "'Late Mobilization': Transnational Peasant Networks and Grassroots Organizing in Brazil and South Africa." *Journal of Agrarian Change* 8 (2-3): 290–314.
- Banaji (a), J. 1976. "Chayanov, Kautsky, Lenin: Considerations towards a Synthesis." *Economic and Political Weekly* 11 (40): 1594–1607.
- Banaji (b), J. 1976. "The Peasantry in the Feudal Mode of Production: Towards an Economic Model." *Journal of Peasant Studies* 3 (3): 299–320.

- Banaji (c), J. 1976c. "Die Agrarfrage [The Agrarian Question]; Partial Trans. J. Banaji (1976) Summary of Selected Parts of the Agrarian Question." *Economy and Society* 5: 1–49.
- Banaji, J. 2009. "Aristocracies, Peasantries and the Framing of the Early Middle Ages." *Journal of Agrarian Change* 9 (1): 59–91.
- Banaji, Jairus. 1996. "Globalisation and Restructuring in the Indian Food Industry." *Journal of Peasant Studies* 24 (1-2): 191–210.
- — —. 2002. "The Metamorphoses of Agrarian Capitalism." *Journal of Agrarian Change* 2 (1): 96–119.
- Barrett, Christopher B., Maren E. Bachke, Marc F. Bellemare, Hope C. Michelson, Sudha Narayanan, and Thomas F. Walker. 2012. "Smallholder Participation in Contract Farming: Comparative Evidence from Five Countries." *World Development* 40 (4): 715–30. doi:10.1016/j.worlddev.2011.09.006.
- Barua, K. 2010. "Variations in Wage Earnings among Agricultural Labourers in Rural Bengal: A Fieldwork Based Analysis." *Indian Journal of Labour Economics* 53 (4): 677–86.
- Bateman, M. "The Role of Microfinance in Contemporary Rural Development Finance Policy and Practice: Imposing Neoliberalism as 'Best Practice.'" *Journal of Agrarian Change* 12 (4): 587–600.
- Beckford, C., and D. Barker. 2007. "The Role and Value of Local Knowledge in Jamaican Agriculture: Adaptation and Change in Small-Scale Farming." *Geographical Journal* 173 (June): 118–28.
- Begum, I., M. Alam, J. Buysse, A. Frija, and G. Van Huylenbroeck. 2012. "Contract Farmer and Poultry Farm Efficiency in Bangladesh: A Data Envelopment Analysis." *Applied Economics* 44 (28): 3737–47.
- Beintema, Adhiguru, Birthal, and Bawa. 2008. *Public Agricultural Research Investments: India in a Global Context*, Policy Brief 27. National Centre for Agricultural Economics and Policy Research (I.C.A.R.).
- Bellisario, A. 2007. "The Chilean Agrarian Transformation: Agrarian Reform and Capitalist 'Partial' Counter-Agrarian Reform, 1964–1980 - Part 2: CORA, Post-1980 Outcomes and the Emerging Agrarian Class Structure." *Journal of Agrarian Change* 7 (2): 145–82.
- — —. "The Chilean Agrarian Transformation: Agrarian Reform and Capitalist 'Partial' Counter-Agrarian Reform, 1964–1980." *Journal of Agrarian Change* 7 (2): 145–82.
- Belton, B., and DAVID LITTLE. "The Development of Aquaculture in Central Thailand: Domestic Demand versus Export-Led Production." *Journal of Agrarian Change* 8 (1): 123–43.
- Bengoa, J. 2013. "Rural Chile Transformed: Lights and Shadows." *Journal of Agrarian Change* 13 (4): 466–87.
- Bernstein, H. 1996a. "Agrarian Questions Then and Now." *The Journal of Peasant Studies* 24 (1-2): 22–59.
- — —. 1996b. "South Africa's Agrarian Question: Extreme and Exceptional?" *Journal of Peasant Studies* 23 (2-3): 1–52.
- — —. 2006. "Is There an Agrarian Question in the 21st Century?" *Canadian Journal of Development Studies-Revue Canadienne D Etudes Du Developpement* 27 (4): 449–60.
- — —. 2009. "V.I. Lenin and A.V. Chayanov: Looking Back, Looking Forward." *Journal of Peasant Studies* 36 (1): 55–81.
- — —. 2010. *Class Dynamics of Agrarian Change*. Kumarian Press, Inc.
<http://www.cabdirect.org/abstracts/20113097841.html>.
- — —. "Land Reform: Taking a Long(er) View." *Journal of Agrarian Change* 2 (4): 433–63.
- Bernstein, H., and T. Brass. 1996. "Questioning the Agrarians: The Work of T.J. Byres." *Journal of Peasant Studies* 24 (1-2): 1–21.
- — —. 1997. "Questioning the Agrarians: The Work of T.J. Byres (vol 24, Pg 1, 1997)." *Journal of Peasant Studies* 24 (3): U3.
- Bernstein, H., and T. Byres. "From Peasant Studies to Agrarian Change." *Journal of Agrarian Change* 1 (1): 1–56.
- Beverly, J. 2004. "Subaltern Resistance in Latin America: A Reply to Tom Brass." *Journal of Peasant Studies* 31 (2): 261–75.
- Bhalla, G.S. 2007. "Agriculture Credit." In *Indian Agriculture since Independence*, 139–74. New Delhi: National Book Trust.
- Bhalla, S. 1999. "Liberalisation, Rural Labour Markets and the Mobilisation of Farm Workers: The Haryana Story in an All-India Context." *Journal of Peasant Studies* 26 (2-3): 25–+.

- Bharadwaj, K. 1997. "Agricultural Price Policy for Growth: The Emerging Contradictions." In *The State, Development Planning and Liberalisation in India*, 198–253. Delhi: Oxford University Press.
- Bhattacharya, N., and A. Khadse. 2010. *Indian Farmers Rise up Against the Corporate Hijack of the World*. La Via Campesina's Open Book: Celebrating 20 years of Struggle and Hope.
<http://www.viacampesina.org/downloads/pdf/openbooks/EN-06.pdf>.
- Bhattacharyya, S. 2001. "Capitalist Development, Peasant Differentiation and the State: Survey Findings from West Bengal." *Journal of Peasant Studies* 28 (4): 95–126.
- . 2007. "Class and the Politics of Participatory Rural Transformation in West Bengal: An Alternative to World Bank Orthodoxy." *Journal of Agrarian Change* 7 (3): 348–81.
- Bhushan, Choudhary, and Srinivas. 2009. "Subhiksha Battling for Survival, May Shut Half Its Stores, Economic Times, 30 January 2009." *Economic Times*, January 30.
- Bhutto, A. W., and A. A. Bazmi. 2007. "Sustainable Agriculture and Eradication of Rural Poverty in Pakistan." *Natural Resources Forum* 31 (4): 253–62.
- Birthal, and Joshi. 2006. *High-Value Agriculture for Accelerated and Equitable Growth*, Policy Brief 24. National Centre for Agricultural Economics and Policy Research (I.C.A.R).
- Blankenau, J., M. Snowden, and M. Langan. 2008. "Understanding Environmentalism in a Red, Agricultural State: The Impact of Political Party Identification and Place of Residence." *Sociological Spectrum* 28 (1): 55–80.
- Bohle, D., and B. Greskovits. 2006. "Capitalism without Compromise: Strong Business and Weak Labor in Eastern Europe's New Transnational Industries." *Studies in Comparative International Development* 41 (1): 3–25.
- . 2007. "Neoliberalism, Embedded Neoliberalism and Neocorporatism: Towards Transnational Capitalism in Central-Eastern Europe." *West European Politics* 30 (3): 443–66.
- Booth, D. 1993. "Development Research: From Impasse to a New Agenda. Beyond the Impasse : New Directions in Development Theory." In *London ; Atlantic Highlands, N.J.*, 49–76.
- Borlaug, N. E. 1985. "Agriculture in the Third-World." *Illinois Research* 27 (1): 25–27.
- Borras, S., and J. Franco. 2010. "Contemporary Discourses and Contestations around Pro-Poor Land Policies and Land Governance." *Journal of Agrarian Change* 10 (1): 1–32.
- . 2012. "Global Land Grabbing and Trajectories of Agrarian Change: A Preliminary Analysis." *Journal of Agrarian Change* 12 (1): 34–59.
- Borras, S., R. Hall, zi. Scoones, B. White, and W. Woford. 2011. "Towards a Better Understanding of Global Land Grabbing: An Editorial Introduction." *Journal of Peasant Studies* 38 (2): 209–16.
- Borras, S., P. McMichael, and I. Scoones. 2010. "The Politics of Biofuels, Land and Agrarian Change: Editors' Introduction." *Journal of Peasant Studies* 37 (4): 575–92.
- Boschma, Ron. 2011. "The Evolution of Path Dependence." *Economic Geography* 87 (3): 363–64.
- Boschma, Ron, and K. Frenken. 2009. "Some Notes on Institutions in Evolutionary Economic Geography." *Economic Geography* 85 (2): 151–58.
- Bossone, B. 2001. "Journal of Banking & Finance" 25 (12): 2239–76.
- Bottazi, P., and S. Rist. "Changing Land Rights Means Changing Society: The Sociopolitical Effects of Agrarian Reforms under the Government of Evo Morales." *Journal of Agrarian Change* 12 (4): 528–51.
- Boyer, J. 2010. "Food Security, Food Sovereignty, and Local Challenges for Transnational Agrarian Movements: The Honduras Case." *Journal of Peasant Studies* 37 (2): 319–51.
- Bramall, C. 2000. "Inequality, Land Reform and Agricultural Growth in China, 1952–55: A Preliminary Treatment." *Journal of Peasant Studies* 27 (3): 30–54.
- Brannstrom, C. 2001. "Producing Possession: Labour, Law and Land on a Brazilian Agricultural Frontier, 1920–1945." *Political Geography* 20 (7): 859–83.
- Brar, J., and S. Gill. 2001. "Tenancy Reversal and Operational Enclosures: A Study of Doaba Region." In *Land Reforms in India Volume 6: Intervention for Agrarian Capitalist Transformation in Punjab and Haryana*. Land Reforms in India. Sage Publications.

- Brass, T. 1986. "Unfree Labour and Capitalist Restructuring in the Agrarian Sector: Peru and India." *The Journal of Peasant Studies* 14 (1): 50–77.
- — —. 1995. "Old Conservatism in 'New' Clothes." *The Journal of Peasant Studies* 22: 516–40.
- — —. 1999. *Towards a Comparative Political Economy of Unfree Labour: Case Studies and Debates*. 16. Routledge.
- — —. 2002. "Rural Labour in Agrarian Transitions: The Semi-Feudal Thesis Revisited." *Journal of Contemporary Asia* 32 (4): 456–73.
- Brass, Tom. 2007. "'A World Which Is Not Yet': Peasants, Civil Society and the State." *Journal of Peasant Studies* 34 (3–4): 582–664.
- Braverman, Harry. 1975. *Labor and Monopoly Capital; the Degradation of Work in the Twentieth Century*. New York: Monthly Review Press.
- Brenner, R. 1986. "The Social Basis of Economic Development." In *Analytical Marxism- Edited by John Roemer*, 23–53. Cambridge Univ Press.
- Brenner, Robert P. "The Low Countries in the Transition to Capitalism." *Journal of Agrarian Change* 1 (2): 169–241.
- Brewer, A. 1989. *Marxist Theories of Imperialism: A Critical Survey*. Routledge.
- Brochure, PepsiCo. 2007. *Partners in Progress*. Ludhiana: PepsiCo.
- Brown, E. 2005. "Unravelling the Web of Theory: Changing Geographical Perspectives on Development." In *Contested Worlds: An Introduction to Human Geography*, 89–126. Ashgate.
- Bukharin. 2001. *Imperialism and World Economy*. Marxists Internet Archive (marxists.org).
- — —. 2009. "New Forms of the World Crisis." *Marxists Internet Archive*, 533–43.
- Bundy, C. 1979. *The Rise and Fall of the African Peasantry*. London: Heinemann.
- Bureau. 2004. "FICCI to Help Refurbish Brand Karnataka." *The Hindu Business Line*, September 15. <http://www.thehindubusinessline.in/2004/09/16/stories/2004091601361700.htm>.
- — —. 2007. "FICCI for Contract Farming, Direct Purchase from Farmers." *Business Line*, July 2.
- — —. 2012a. "Jain Irrigation to Partner IFC for NBFC Venture." *Business Line*, July 6. <http://www.thehindubusinessline.com/industry-and-economy/banking/jain-irrigation-to-partner-ifc-for-nbfc-venture/article3609034.ece>.
- — —. 2012b. "Adopt Contract Farming to Enhance Food Processing, Says Sahai." *The Hindu*, August 27. <http://www.thehindubusinessline.com/todays-paper/tp-agri-biz-and-commodity/article1002542.ece>.
- — —. 2012c. "Formulate Land Leasing Act for Contract Farming: CII." *Deccan Herald*, September 3. <http://www.deccanherald.com/content/23174/feng-shui.html>.
- Burkett, P., and H. Landsberg. 2003. "A Critique of 'Catch-Up' Theories of Development." *Journal of Contemporary Asia, OR Economic Geog – Vol 33*: 147–71.
- Bush, R. 2007. "Politics, Power and Poverty: Twenty Years of Agricultural Reform and Market Liberalisation in Egypt." *Third World Quarterly* 28 (8): 1599–1615.
- — —. 2010. "Food Riots: Poverty, Power and Protest 1." *Journal of Agrarian Change* 10 (1): 119–29.
- Buttel, F. H. 2001. "Some Reflections on the Late Twentieth Century Agrarian Political Economy." *Cadernos de Ciência & Tecnologia, Brasília* 18 (2): 11–36.
- Byres, T. 1981. "The New Technology, Class Formation and Class Action in the Indian Countryside." *The Journal of Peasant Studies* 8 (4): 405–54.
- — —. 2009. "The Landlord Class, Peasant Differentiation, Class Struggle and the Transition to Capitalism: England, France and Prussia Compared." *Journal of Peasant Studies* 36 (1): 33–54.
- — —. "Neo-Classical Neo-Populism 25 Years On: Déjà Vu and Déjà Passé. Towards a Critique." *Journal of Agrarian Change* 4 (1–2): 17–44.
- Byres, T., and T. Bottomore. 2000. "Agrarian Question." In *A Dictionary of Marxist Thought*, Indian Reprint, 9–11. Worldview Publications.

- Byres, T., I. Breman, and Mundle. 1991. "The Agrarian Question and Differing Forms of Capitalist Agrarian Transition: An Essay with Reference to Asia." In *Rural Transformation in Asia*, 3–76. Delhi: Oxford Univ Press.
- Cabello, G. 2003. "The Mexican State and the Agribusiness Model of Development in the Globalisation Era." *Australian Journal of Social Issues* 38 (1): 129–39.
- Campling, L., E. Havice, and P. McCall. "The Political Economy and Ecology of Capture Fisheries: Market Dynamics, Resource Access and Relations of Exploitation and Resistance." *Journal of Agrarian Change* 12 (2-3): 177–203.
- Canterbury, D. 2007. "Caribbean Agriculture under Three Regimes: Colonialism, Nationalism and Neoliberalism in Guyana." *Journal of Peasant Studies* 34 (1): 1–28.
- Carney, and Watts. 1990. "Manufacturing Dissent: Work, Gender and the Politics of Meaning in a Peasant Society." *Africa: Journal of the International African Institute* 60 (2): 207–41.
- Carroll, W. 2007. "From Canadian Corporate Elite to Transnational Capitalist Class: Transitions in the Organization of Corporate Power." *Canadian Review of Sociology and Anthropology-Revue Canadienne De Sociologie Et D Anthropologie* 44 (3): 265–88.
- Carswell, G. "Food Crops as Cash Crops: The Case of Colonial Kigezi, Uganda." *Journal of Agrarian Change* 3 (4): 521–51.
- Carter, L. 2007. "A Case for a Duty to Feed the Hungry: GM Plants and the Third World." *Science and Engineering Ethics* 13 (1): 69–82.
- Carton, H., and S. Laraflores. 2010. "Productive Restructuring and 'Standardization' in Mexican Horticulture: Consequences for Labour." *Journal of Agrarian Change* 10 (2): 228–50.
- CBC News. 2012. "14 Canada-India Deals in the Spotlight." *CBC News*, November 6. <http://www.cbc.ca/news/politics/14-canada-india-deals-in-the-spotlight-1.1262986>.
- Chaba-Agnihotri, A. 2011. "Farmers Take to Drip Irrigation to Cut Cost, and Save Water." *The Indian Express*, September 20. <http://www.indianexpress.com/news/farmers-take-to-drip-irrigation-to-cut-cost-and-save-water/848873/1>.
- Chadha, G. 1986. *The State and Rural Economic Transformation: The Case of Punjab 1950-85*. New Delhi: Sage Publications.
- Chadha, R., and S. Davenport. 2011. *Agricultural Policy Reform in the BRIC Countries*. Working Paper. National Council of Applied Economic Research, India and New South Wales Department of Industry and Investment, Australia.
- Chakrabarty, C., and V. Giridhar. 2007. "Reaping Rich Dividends." *Hindustan Times*, December 12.
- Chakraborty, Debashis. 2009. "Contract Farming in India: Unique Solution to Multilayer Agricultural Problems?" *Review of Market Integration* 1 (1): 83–102.
- Challies, E., and W. Murray. 2011. "The Interaction of Global Value Chains and Rural Livelihoods: The Case of Smallholder Raspberry Growers in Chile." *Journal of Agrarian Change* 11 (1): 29–59.
- Chambati, W. 2011. "Restructuring of Agrarian Labour Relations after Fast Track Land Reform in Zimbabwe." *Journal of Peasant Studies* 38 (5): 1047–68.
- Chand, R. 2002. *Trade Liberalisation, WTO and Indian Agriculture: Experience and Prospects*. Mittal Publications, New Delhi.
- — —. 2004. *India's National Agricultural Policy: A Critique*. Delhi: Institute of Economic Growth, Delhi University.
- — —. 2005. *Post WTO Agriculture Trade and Agenda for Negotiations on Agriculture*. Policy Brief 23. National Centre for Agricultural Economics and Policy Research (I.C.A.R).
- Chandran, B. 2007. "Centre May Open Farm Gate to FDI." *The Financial Express*, July 6. <http://www.financialexpress.com/news/centre-may-open-farm-gate-to-fdi/203989/>.
- Chandrasekhar, C., and S. Ray. 2005. "Financial Sector Reform and the Transformation of Banking." In *Financial Liberalisation and Rural Credit in India*, Tulika Books, New Delhi, 12–38. Agrarian Studies 2. Tulika Books.
- Chandrashekar, C. 2011a. "Policy Paralysis and Inflation." *Frontline*, February 11.

- — —. 2011b. "Retreat on Retail." *Frontline*, December 30.
- Chandy, K. *Indian Agriculture Under the Five-Year Plans*. Booklet no. 539. Agricultural Situation in India: ASIS-10.
- Chaudhary, K., S. Dixit, and T. Chopra. 2009. "Agricultural Inputs in Rural India." <http://www.scribd.com/doc/29802374/Agricultural-inputs-in-Rural-India-Brands-which-excelled-those-which-failed>.
- Cheshire, L. 2009. "Euro Fruits Invests in Grape Future." *Asia Fruit*, April.
- Chhatre, A., and V. Saberwal. 2006. "Democracy, Development and (Re-) Visions of Nature: Rural Conflicts in the Western Himalayas." *Journal of Peasant Studies* 33 (4): 678–706.
- Chibber, V. 1998. "Breaching the Nadu: Lordship and Economic Development in Pre-colonial South India." *Journal of Peasant Studies* 26 (1): 1–42.
- China Co-ops. 2011. "India Takes to Contract Farming in a Big Way." <http://www.chinacoop.coop/html/2011/03/21/215.html>.
- Chowdhury, A. 2011. "Food Price Hikes: How Much Is Due to Excessive Speculation?" *Economic And Political Weekly* XLVI (28): 12–15.
- Christiansen, F. 2009. "Food Security, Urbanization and Social Stability in China." *Journal of Agrarian Change* 9 (4): 548–75.
- CII. 2011. "Novel Food Technology Key to Increase Value Addition of Agri Produce to 10-15% : Tamil Nadu Governor", October 23, sec. Media Releases. <http://cii.in/PressreleasesDetail.aspx?enc=3ZqxGbNntf80WTNoyexWzgAP1Gn2TzqgednhKNBkfj0U9I+iqCXz+hRiBYkmj8P3>.
- — —. 2012. "CII to Focus on Reforms and Governance to Put Economy Back on Pre-Crisis Growth Trajectory: President, CII", April 19. <http://cii.in/PressreleasesDetail.aspx?enc=qB86LgevZbHA1yUWNHCHmYBMRC2ro8I4+cLszDVafZwCkUF2ZGR+JRQuBpMF94f+>.
- CII Website. 2012. "Increase Private Investment for Capacity Creation in Farming", March 7. <http://cii.in/PressreleasesDetail.aspx?enc=KGQ6R/O1X7FErS/5XI3zZhV3mYP11LoS7aBpqYYCJa77FCr+r99AXqZfm6Bj38hBk>.
- — —. 2011. "Confederation of Indian Industry." Accessed July 11. http://www.ciionline.org/About_Us.aspx?enc=ns9fJzmNKJnsoQCyKqUmaQ==.
- CIIb. 2011. "Farm Mechanization – Move to 'Rupees per Acre' Approach." *CII Press Release*, June 13. <http://cii.in/PressreleasesDetail.aspx?enc=AJ1NV2mT+nA8Plix8XvfQZH1OIYXqxHwliogNQPd+/HGSOV9w9QgxtLchnM/Uiv6>.
- CIIId. 2011. "'Contract Farming Will Provide Structural Solutions to Our Agri Production Problems', Said Mr. Asit Tripathy, IAS, Chairman, APEDA", March 18. <http://cii.in/PressreleasesDetail.aspx?enc=YBtP2BXEj4NzKU/kLk5JQm16eiYExKE8wyZpvozgR14fq8V6BosBX1a1cKEI6DH>.
- Clairmont, F. 1994. "The Grand Malediction: Bretton Woods in Retrospect." *Economic and Political Weekly*, 2727–30.
- — —. 1997. "The Transnational Gulag: Reflections on Power Inc." *Economic and Political Weekly*, 449–52.
- — —. 2000a. "Making of the Crash." *Economic and Political Weekly*, 4478–81.
- — —. 2000b. "The Global Corporation: Road to Serfdom." *Economic and Political Weekly* 35 (1/2): 24–27.
- Clairmont, F., and J. Cavanagh. 1994. "World's Top 200 Mega Corporations: Foundations of the Economic Gulag." *Economic and Political Weekly*, 283–85.
- Clapp, R. 1994. "The Moral Economy of the Contract." In Vol. *Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*. The University of Wisconsin Press.
- Clapp, R. A. J. 1988. "Representing Reciprocity, Reproducing Domination: Ideology and the Labour Process in Latin American Contract Farming." *The Journal of Peasant Studies* 16 (1): 5–39.
- Cleaver, H. 1972. "The Contradictions of the Green Revolution." *The American Economic Review* 62 (1/2): 177–86.

- Clement, M. 2004. "Rice Imperialism - The Agribusiness Threat to Third World Rice Production." *Monthly Review-an Independent Socialist Magazine* 55 (9): 15–22.
- Cock, J. H. 2001. "Contract Farming: A Review." *International Sugar Journal* 103 (1233): 402–+.
- Coe, N., P. Dicken, M. Hess, and H. Yeung. 2010. "Making Connections: Global Production Networks and World City Networks." *Global Networks - A Journal of Transnational Affairs* 10 (1, SI): 138–49.
- Coe, N., and M. Hess. 2013. "Global Production Networks, Labour and Development." *Geoforum* 44: 4–9.
- Coe, N., M. Hess, H. Yeung, P. Dicken, and J. Henderson. 2004. "'Globalizing' Regional Development: A Global Production Networks Perspective." *Transactions of the Institute of British Geographers* 29 (4): 468–84.
- Coe, N., P. Kelly, and H. Yeung. 2007. *Economic Geography: A Contemporary Introduction*. Blackwell Publishing.
- Cohen, G. 1986. "Forces and Relations of Production." In *Analytical Marxism- Edited by John Roemer*, 11–22. Cambridge Univ Press.
- — —. 2000. *Karl Marx's Theory of History: A Defence*. Oxford Univ Press.
- Collier, A., and J. Collier. 2005. "The Zapatista Rebellion in the Context of Globalization." *Journal of Peasant Studies* 32 (3-4): 450–60.
- Cook, M., and P. Barry. 2004. "Organizational Economics in the Food, Agribusiness, and Agricultural Sectors." *American Journal of Agricultural Economics* 86 (3): 740–43.
- Corbridge, Stuart, and John Harriss. 2000. *Reinventing India: Liberalization, Hindu Nationalism and Popular Democracy*. Polity Press.
- Cormode, L., and A. Hughes. 1999. "The Economic Geographer as a Situated Researcher of Elites." *Geoforum* 30 (4): 299–300.
- Cotula, L. 2012. "The International Political Economy of the Global Land Rush: A Critical Appraisal of Trends, Scale, Geography and Drivers." *Journal of Peasant Studies* 39 (3-4): 649–80.
- Cousins, B. "Smallholder Irrigation Schemes, Agrarian Reform and 'Accumulation from Above and from Below' in South Africa." *Journal of Agrarian Change* 13 (1): 116–39.
- Crabtree, J. 2002. "The Impact of Neo-Liberal Economics on Peruvian Peasant Agriculture in the 1990s." *Journal of Peasant Studies* 29 (3-4): 131–61.
- Cramer, C., and P. Richards. "Violence and War in Agrarian Perspective." *Journal of Agrarian Change* 11 (3): 277–97.
- Cravey, A. J. 1998. *Women and Work in Mexico's Maquiladoras*. Rowman & Littlefield Pub Inc.
http://books.google.ca/books?hl=en&lr=&id=rVpeJt_o93IC&oi=fnd&pg=PR9&dq=Cravey+1998++labour+active+agency&ots=9bUZU5u920&sig=KpwhOc7thSi9nVih2zDGCvr-GV8.
- Crem, B. 2008. *Contract Farming in ASEAN Countries - A Fact Finding Study*. Amsterdam: Oxfam Novib.
- CropLife Asia. 2011. "CropLife Asia." Accessed May 31. <http://snsvo6.seekandsource.com/crop/home.html>.
- Da Corta, L., and D. Venkateshwarlu. 1999. "Unfree Relations and the Feminisation of Agricultural Labour in Andhra Pradesh, 1970–95." *The Journal of Peasant Studies* 26 (2-3): 71–139.
- Dam, M. 2007. "Singur to Nandigram and beyond", January 10.
<http://www.hindu.com/2007/01/10/stories/2007011006051100.htm>.
- Daniel, S. 2012. "Situating Private Equity Capital in the Land Grab Debate." *Journal of Peasant Studies* 39 (3-4): 703–29.
- Das, R. 1998. "The Green Revolution, Agrarian Productivity and Labor." *International Journal of Urban and Regional Research* 22 (1): 122–35.
- — —. 1999. "Geographical Unevenness of India's Green Revolution." *Journal of Contemporary Asia* 29 (2): 167–86.
- — —. 2001a. "Review Article - Class, Capitalism and Agrarian Transition: A Critical Review of Some Recent Arguments." *Journal of Peasant Studies* 29 (1): 155–74.
- — —. 2001b. "The Spatiality of Social Relations: An Indian Case-Study." *Journal of Rural Studies* 17: 347–62.

- — —. 2002. "The Green Revolution and Poverty: A Theoretical and Empirical Examination of the Relation between Technology and Society." *Geoforum* 33 (1): 55–72.
- — —. 2004. "Social Capital and Poverty of the Wage-Labour Class: Problems with the Social Capital Theory." *Transactions of the Institute of British Geographers* 29 (1): 27–45.
- — —. 2005. "Rural Society, the State and Social Capital in Eastern India: A Critical Investigation." *Journal of Peasant Studies* 32 (1): 48–87.
- — —. 2006. "Marxist Theories of the State." In *Alternative Theories of the State*, Ed. by Steven Pressman, 64–90. Palgrave Macmillan.
- — —. 2007a. "Looking, but Not Seeing: The State And/as Class in Rural India." *The Journal of Peasant Studies* 34 (3-4): 408–40.
- — —. 2007b. "Introduction: Peasant, State and Class." *Journal of Peasant Studies* 34 (3): 351–70.
- — —. 2010. "Working Long Hours for Low Wages". Conference Presentation presented at the Association of American Geographers, Washington D.C., April 17.
- — —. 2011. "Reconceptualizing Capitalism: Forms of Subsumption of Labor, Class Struggle, and Uneven Development." *Review of Radical Political Economics* xx(x): 1–23.
- — —. 2012a. "From Labor Geography to Class Geography: Reasserting the Marxist Theory of Class." *Human Geography - A New Radical Journal* 5 (1): 19–35.
- — —. 2012b. "The Dirty Picture of Neoliberalism: India's New Economic Policy." *The Bullet - Socialist Project*, no. E-Bulletin No. 623 (April). <http://www.socialistproject.ca/bullet/623.php>.
- — —. 2013a. "Low-Wage Capitalism, Social Difference, and Nature-Dependent Production: A Study of the Conditions of Workers in Shrimp Aquaculture." *Human Geography - A New Radical Journal* 7 (1).
- — —. 2013b. "What Is to Be Done?", February 10.
- — —. 2013c. "Agrarian Crisis as the Crisis of Small Property Ownership in Globalizing Capitalism." *Monthly Review*, October. <http://mrzine.monthlyreview.org/2013/das011013.html>.
- — —. 2014. "India in Crisis." *Canadian Dimension* 48 (1).
- Dasgupta, B. 2005. *Globalisation : India's Adjustment Experience*. New Delhi: Thousand Oaks, Calif. : Sage Publications. <http://www.loc.gov/catdir/toc/ecip055/2004030475.html>; Materials specified: Table of contents <http://www.loc.gov/catdir/toc/ecip055/2004030475.html>; Materials specified: Publisher description <http://www.loc.gov/catdir/enhancements/fy0658/2004030475-d.html>.
- Data. 2011. "India - Horticulture Crop Scenario." Accessed July 22. http://agritech.tnau.ac.in/horticulture/horti_index.html.
- Davidson, N. "The Scottish Path to Capitalist Agriculture 1: From the Crisis of Feudalism to the Origins of Agrarian Transformation (1688–1746)." *Journal of Agrarian Change* 4 (3): 227–68.
- — —. "The Scottish Path to Capitalist Agriculture 3: The Enlightenment as the Theory and Practice of Improvement." *Journal of Agrarian Change* 5 (1): 1–72.
- Daviron, B. "Small Farm Production and the Standardization of Tropical Products." *Journal of Agrarian Change* 2 (2): 162–84.
- Daviron, B., and P. Gibbon. "Global Commodity Chains and African Export Agriculture." *Journal of Agrarian Change* 2 (2): 137–61.
- DOnline. 2013. "Thousands Demand BRAI Will Be Withdrawn, India Be GMO Free." *Deccan Chronicle*, August 11. <http://archives.deccanchronicle.com/130811/news-current-affairs/article/thousands-demand-brai-bill-be-withdrawn-india-be-gmo-free>.
- De Janvry. 1981. *The Agrarian Question and Reformism in Latin America*. Johns Hopkins University Press.
- De León, A. 2005. "From Revolution to Transition: The Chiapas Rebellion and the Path to Democracy in Mexico." *Journal of Peasant Studies* 32 (3-4): 508–27.
- De Schutter, O. 2011. "How Not to Think of Land-Grabbing: Three Critiques of Large-Scale Investments in Farmland." *Journal of Peasant Studies* 38 (2): 249–79.
- De Souza, A., and S. Hoefle. 2008. "On the Cutting Edge of the Brazilian Frontier: New (and Old) Agrarian Questions in the South Central Amazon." *Journal of Peasant Studies* 35 (1): 1–38.

- De Souza, J. 2002. "Representing the Peasantry? Struggles For/about Land in Brazil." *Journal of Peasant Studies* 29 (3-4): 300–335.
- Deininger, K. 2011. "Challenges Posed by the New Wave of Farmland Investment." *Journal of Peasant Studies* 38 (2): 217–47.
- Demirbas, N. 2007. "Agribusiness in the Turkish Economy." *Agricultural Economics-Zemledelska Ekonomika* 53 (5): 224–29.
- Department of AGriculture and Cooperation, GoI. *Working Group on Marketing Reforms, Contract Farming and Agro Processing Sector: Background Paper*. GoI.
- Deshpande, C. 2005. *Contracting Farming as Means of Value-Added Agriculture*. Occasional Papers 42. Department of Economic Analysis and Research: National Bank for Agriculture and Rural Development.
- Deshpande, R. *Land Policy Issues in the Development Context*. Asian Development Bank.
- Deshpande, R., N. Neelakanta, and N. Hegde. 2009. "Cultivation of Medicinal Crops and Aromatic Crops as a Means of Diversification in Agriculture." In *Sustainable Agribusiness: Opportunities and Issues*. Edited by Atul Sathe. Hyderabad: The Icfai University Press.
- Dev, M., and C. Rao. "Food Processing and Contract Farming in Andhra Pradesh: A Small Farmer Perspective." *Economic and Political Weekly*, no. 25 June 2005: 2705–13.
- Dhaliwal, S. 2005. "Political, Farmers' Bodies Propose Agri Policy to Centre." *The Tribune*, March 13, Online Edition edition. <http://www.tribuneindia.com/2005/20050313/punjab1.htm>.
- Dhanagare, D. 1994. "The Class Character and Politics of the Farmers' Movement in Maharashtra during the 1980s." *Journal of Peasant Studies* 21 (3-4): 72–94.
- Dhoot, S. 2006. *National Agriculture Policy – A Critical Evaluation*. Briefing Paper GRANITE 2/2006. CUTS (Consumer Unity & Trust Society) International. www.cuts-citee.org/pdf/BP06-DI-4.pdf.
- Dinerman, A. 2001. "Peasant and State in Mozambique." *Journal of Peasant Studies* 28 (3): 143–54.
- Disdier, A., L. Fontagne, and M. Mimouni. 2008. "The Impact of Regulations on Agricultural Trade: Evidence from the SPS and TBT Agreements." *American Journal of Agricultural Economics* 90 (2): 336–50.
- Dixon, A., L. Pauly, J. Faulconbridge, H. Yeung, and Sven Behrendt. 2010. "Symposium: Sovereign Fund Capitalism." *Environment and Planning A* 42 (9): 2271–91.
- Drew, A. 1996. "The Theory and Practice of the Agrarian Question in South African Socialism, 1928–60." *Journal of Peasant Studies* 23 (2-3): 53–92.
- Dreze, J. 2001. "Starving the Poor I and II." *The Hindu*, February 26. <http://www.hindu.com/2001/02/27/stories/05272524.htm>.
- Duménil, G., and D. Lévy. 2005. "The Neoliberal (counter-) Revolution." In *Neoliberalism: A Critical Reader*, 9–19. London: Pluto Press.
- Dyer, G. 1996. "Output per Acre and Size of Holding: The Logic of Peasant Agriculture under Semi-feudalism." *Journal of Peasant Studies* 24 (1-2): 103–31.
- — —. "Redistributive Land Reform: No April Rose. The Poverty of Berry and Cline and GKI on the Inverse Relationship." *Journal of Agrarian Change* 4 (1-2): 45–72.
- Easterling, S. 2003. "Marx's Theory of Economic Crisis." *International Socialist Review*, no. 32 November–December. http://www.isreview.org/issues/32/crisis_theory.shtml.
- Echanove, F., and C. Steffen. 2005. "Agribusiness and Farmers in Mexico: The Importance of Contractual Relations." *Geographical Journal* 171: 166–76.
- Edelman, M. "Transnational Organizing in Agrarian Central America: Histories, Challenges, Prospects." *Journal of Agrarian Change* 8 (2-3): 229–57.
- Edin, M. 2003. "Local State Corporatism and Private Business." *Journal of Peasant Studies* 30 (3-4): 278–95.
- Enríquez, L. 2013. "The Paradoxes of Latin America's 'Pink Tide': Venezuela and the Project of Agrarian Reform." *Journal of Peasant Studies* 40 (4): 611–38.
- EPW Research Foundation. 2004. "Scheduled Commercial Banks in India: A 30-Year Data Base." *Economic And Political Weekly* 39 (12): 1331–56.

- Erappa, S. 2006. *Contract Farming in Karnataka: A Boon or a Bane?* 9/ADRT113. Agricultural Development and Rural Transformation Centre: Institute for Social and Economic Change, Bangalore. <http://www.isec.ac.in/CONTRACT%20FARMING%20FINAL%20REPORT.pdf>.
- Escobar, A. 1997. "The Making and Unmaking of Third World through Development." In *The Post-Development Reader*, 73–84. London: Zed Books.
- ET Bureau. 2009. "Gujarat Farmers Reap Gains with Crops of Foreign Origin." *The Economic Times*, May 28. http://articles.economictimes.indiatimes.com/2009-05-28/news/27645691_1_contract-farming-kheda-crops.
- Ewert, Joachim, and Johann Hamman. 1996. "Labour Organisation in Western Cape Agriculture: An Ethnic Corporatism?" *Journal of Peasant Studies* 23 (2-3): 146–65.
- Eyferth, J. 2003. "How Not to Industrialize: Observations from a Village in Sichuan." *Journal of Peasant Studies* 30 (3-4): 75–92.
- Eyferth, J., P. Ho, and E. Vermeer. 2003. "Introduction: The Opening-up of China's Countryside." *Journal of Peasant Studies* 30 (3-4): 1–17.
- Fafchamps, M. 1992. "Cash Crop Production, Food Price Volatility, and Rural Market Integration in the Third-World." *American Journal of Agricultural Economics* 74 (1): 90–99.
- Fagan, R., and R. Leheron. 1994. "Reinterpreting the Geography of Accumulation - the Global Shift and Local Restructuring." *Environment and Planning D-Society & Space* 12 (3): 265–85.
- Falcon, W. 1987. "Aid, Food Policy Reform, and United-States Agricultural Interests in the Third-World." *American Journal of Agricultural Economics* 69 (5): 929–35.
- Fan, S., A. Gulati, and S. Thorat. 2008. "Investment, Subsidies, and Pro-poor Growth in Rural India." *Agricultural Economics* 39 (2): 163–70.
- Farole, T., A. Rodriguez Pose, and M. Storper. 2011. "Human Geography and the Institutions That Underlie Economic Growth." *Progress in Human Geography* 35 (1): 58–80.
- Feder, E. 1981. "Monopoly Capital and Agricultural Employment in the Third-World." *Journal of Contemporary Asia* 11 (2): 135–68.
- FICCI Agriculture Desk. 2010. *Corporate Interventions in Indian Agriculture: Towards a Resilient Farming Community*. New Delhi: Federation of Indian Chambers of Commerce and Industry (FICCI).
- FICCI Internal Document. 2007. *Contract Farming in India*. Unpublished Internal Document. Federation of Indian Chambers of Commerce & Industry (FICCI), New Delhi: FICCI, New Delhi.
- FICCI overview. 2009. "Agriculture Sector Overview - FICCI Report." In *Sustainable Agribusiness: Opportunities and Issues*. Edited by Atul Sathe. Hyderabad, India: The Icfai University Press.
- FICCI Website. 2011. "Welcome to FICCI.COM." Accessed July 11. <http://www.ficci.com/sector-details.asp?secid=1>.
- Finan, A. 2007. "New Markets, Old Struggles: Large and Small Farmers in the Export Agriculture of Coastal Peru." *Journal of Peasant Studies* 34 (2): 288–316.
- Fine, B., and A. Saad-Filho. 2004. *Marx's Capital, Revised Fourth Edition*. London: Pluto Press.
- Flaherty, M., and P. Vandergeest. 1998. "'Low-Salt' Shrimp Aquaculture in Thailand: Goodbye Coastline, Hello Khon Kaen!" *Environmental Management* 22 (6): 817–30.
- Flaherty, M., P. Vandergeest, and P. Miller. 1999. "Rice Paddy or Shrimp Pond: Tough Decisions in Rural Thailand." *World Development* 27 (12): 2045–60.
- Foley, P. "The Political Economy of Marine Stewardship Council Certification: Processors and Access in Newfoundland and Labrador's Inshore Shrimp Industry." *Journal of Agrarian Change* 12 (2-3): 436–57.
- Fortin, E. 2013. "Transnational Multi-Stakeholder Sustainability Standards and Biofuels: Understanding Standards Processes." *Journal of Peasant Studies* 40 (3): 563–87.
- Franke, N., P. Keinz, and C. Steger. 2009. "Testing the Value of Customization: When Do Customers Really Prefer Products Tailored to Their Preferences?" *Journal of Marketing* 73 (5): 103–21.
- Frankel, F. 2006. "India's Political Economy: The Gradual Revolution (1947-2004)." *OUP*. <http://ideas.repec.org/b/oxp/obooks/9780195683790.html>.
- Fridell, G. 2013. *Alternative Trade: Legacies for the Future*. Halifax: Fernwood Publishing.

- Friedmann, H. 1978. "World Market, State, and Family Farm: Social Bases of Household Production in an Area of Wage Labor." *Comparative Studies in Society and History* 20: 545–86.
- — —. 1993. "The Political Economy of Food: A Global Crisis." *New Left Review*, 29–29.
- — —. 2006. "Focusing on Agriculture: A Comment on Henry Bernstein's 'Is There an Agrarian Question in the 21st Century?'" *Canadian Journal of Development Studies* 27 (4): 461–65.
- — —. 2007. "Scaling up: Bringing Public Institutions and Food Service Corporations into the Project for a Local, Sustainable Food System in Ontario." *Agriculture and Human Values* 24 (3): 389–98.
- Friedmann, Harriet. 2009. "Discussion: Moving Food Regimes Forward: Reflections on Symposium Essays." *Agriculture and Human Values* 26 (4): 335–44.
- Fulton, J., H. Peterson, M. Boehlje, T. Sporleder, and W. Harrison. 1998. "Vertical Coordination as Agribusiness Strategy." *American Journal of Agricultural Economics* 80 (5): 1161.
- Gaido, D. 2003. "Karl Kautsky on Capitalism in the Ancient World." *Journal of Peasant Studies* 30 (2): 146–58.
- Ganguli, R. 2003. "Wafer Thin." *The Economic Times*, June 2.
http://articles.economictimes.indiatimes.com/2003-06-02/news/27535961_1_contract-farming-largest-potato-producer-food-processing.
- Gaur, H. 2010. Vasundhara Agri Horti Producer Company Ltd.
- Gerber, J., and S. Veuthy. 2010. "Plantations, Resistance and the Greening of the Agrarian Question in Coastal Ecuador." *Journal of Agrarian Change* 10 (4): 455–81.
- Gereffi, G. 1994. "The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks." In *Commodity Chains and Global Capitalism*.
- — —. 1999. "A Commodity Chains Framework for Analyzing Global Industries". presented at the Institute for Development Studies. http://eco.ieu.edu.tr/wp-content/Gereffi_CommodityChains99.pdf.
- Ghosh, G., and R. Ganguly. 2009. *Development Challenges in Indian Agriculture: Background Technical Papers for the Preparation of the National Medium Term Priority Framework for FAO and the Government of India*. FAO India Working Documents ISSN 2075-8200. FAO.
- Ghosh, J. 2003. "Corporate Agriculture: The Implications for Indian Farmers."
- — —. 2007. "On Nandigram." *MacroScan: An Alternative Economics Webcentre*, November.
<http://www.macrosan.com/cur/nov07/cur121107Nandigram.htm>.
- — —. 2010. "The Unnatural Coupling: Food and Global Finance." *Journal of Agrarian Change* 10 (1): 72–86.
- — —. 2011. "Speculation Drove Wheat Prices up While Supply Expanded."
http://therealnews.com/t2/index.php?option=com_content&task=view&id=31&Itemid=74&jumival=7064.
- Ghuman, R., I. Singh, and L. Singh. 2007. *Status of Local Agricultural Labour in Punjab*. Department of Economics, Punjabi University, Patiala: The Punjab State Farmers Commission, Government of Punjab.
- Gidwani, V. 2002. "The Unbearable Modernity of 'development'? Canal Irrigation and Development Planning in Western India." *Progress in Planning* 58 (1): 1–80.
- Gidwani, V. 2001. "The Cultural Logic of Work: Explaining Labour Deployment and Piece-Rate Contracts in Matar Taluka, Gujarat - Parts 1 and 2." *Journal of Development Studies* 38 (2): 57–108.
- — —. 2007. "Peasants in India's Non-Violent Revolution: Practice and Theory." *Social History* 32 (2): 211–15.
- Gidwani, V., and S Chari. 2004. "Geographies of Work." *Environment and Planning D - Society and Space* 22 (4): 475–84.
- Gidwani, VK. 2006. "Remaking the Global Economy." *Growth and Change* 37 (2): 325–28.
- Gill, K.K, and S.S. Gill. 1990. "Agricultural Development and Industrialisation in Punjab: Some Issues Related to the Pepsi Model." *Economic & Political Weekly*, November, 2507–9.
- Gill, S. 1994a. "The Farmers Movement and Agrarian Change in the Green Revolution-Belt of North-West India." *Journal of Peasant Studies* 21 (3-4): 195–211.
- Gill, S. 1989. "Changing Land Relations in Punjab and Implications for Land Reforms." *Economic and Political Weekly*, June, 79–85.
- — —. 1994b. "The Farmers' Movement and Agrarian Change in the Green Revolution Belt of North-West India." *The Journal of Peasant Studies* 21 (3-4): 195–211.

- — —. 1996. *Unionisation of Agricultural Labour: Experience of Punjab*. Patiala: Punjabi University.
- — —. 2005a. "Economic Distress and Farmer Suicides in Rural Punjab." *Journal of Punjab Studies*, Special Number on Agriculture and Rural Economy of Indian Punjab, 12 (2): 219–38.
- — —. 2005b. "Economic Distress and Suicides in Rural Punjab." *Journal of Punjab Studies: Special Number on Agriculture and Rural Economy of Indian Punjab* 12 (2).
- Gill, S.S., and R. Ghuman. 2001. "Land Reforms in Punjab and Haryana: Trends and Issues." In *Land Reforms in India Volume 6: Intervention for Agrarian Capitalist Transformation in Punjab and Haryana*. Vol. 6. New Delhi: Sage Publications.
- Gisolfi, M. R. 2006. "From Crop Lien to Contract Farming the Roots of Agribusiness in the American South, 1929-1939." *Agricultural History* 80 (2): 167–89.
- Glade, W., and L. Tavis. 1997. "Actualizing the Developmental Response of Multinational Corporations: The Case of Agribusiness in the Mexican Countryside." *University of Pennsylvania Journal of International Economic Law* 18 (4): 1211–34.
- Glover, D. 2007. "Farmer Participation in Private Sector Agricultural Extension." *Ids Bulletin-Institute of Development Studies* 38 (5): 61–+.
- — —. 2010a. "Is Bt Cotton a Pro-Poor Technology? A Review and Critique of the Empirical Record." *Journal of Agrarian Change* 10 (4): 482–509.
- — —. 2010b. "The Corporate Shaping of GM Crops as a Technology for the Poor." *Journal of Peasant Studies* 37 (1): 67–90.
- Glover, D., and K. Kusterer. 1990. *Small Farmers, Big Business: Contract Farming and Rural Development*. St. Martin's Press. <http://www.cabdirect.org/abstracts/19916710935.html>.
- Goel, M. 2007. "How Best to Help Punjab Farmers." *Tribune*, July 1.
- GOI (Government of India). 2003. *Report of the Committee on Capital Formation in Agriculture*. Government Report. New Delhi: Directorate of Economics & Statistics, Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India.
- GOI (Ministry of Agriculture). 2002. *Report of Inter-Ministerial Task Force on Agricultural Marketing Reforms*. Ministry of Agriculture, Government of India. <http://agmarknet.nic.in/taskrep.htm>.
- GoI, Department of Commerce. 2002. "Agri Export Zones Get Going." *Department of Commerce, Government of India*, January 7, sec. Press Release. http://commerce.nic.in/PressRelease/pressrelease_detail.asp?id=811.
- Golait, R. 2007. "Current Issues in Agriculture Credit in India: An Assessment." *Reserve Bank of India*, Occasional Papers, 28 (1).
- Goodman, D., and M. Redclift. 1991. *Refashioning Nature: Food, Ecology and Culture*. London and New York: Routledge.
- Goodman, D., and M. Watts. 1997. *Globalising Food: Agrarian Questions and Global Restructuring*. London: Routledge.
- Gorlach, K., M. Lostak, and P. Mooney. 2008. "Agriculture, Communities, and New Social Movements: East European Ruralities in the Process of Restructuring." *Journal of Rural Studies* 24 (2): 161–71.
- Goswami, B. 2007. "Making a Meal of Bt Cotton." www.infochangeindia.org. <http://www.infochangeindia.org/other/features/making-a-meal-of-bt-cotton.html>.
- Gould, L. 2006. "EurepGAP Welcomes Increasingly Global Role." *EuroFruit*, January.
- Government of India, Ministry of Rural Development. 2011. "Swarnjayanti Gram Swarozgar Yojna." Accessed July 8. <http://rural.nic.in/sgsy.htm>.
- Government of India, Planning Commission. 1951. "Government of India, Planning Commission, 1st Five Year Plan." <http://planningcommission.nic.in/plans/planrel/fiveyr/1st/1planch9.html>.
- — —. 1956. "Government of India, Planning Commission, 2nd Five Year Plan (1956-61)." <http://planningcommission.nic.in/plans/planrel/fiveyr/2nd/2planch13.html>.
- — —. 1961. "Government of India, Planning Commission, 3rd Five Year Plan." <http://planningcommission.nic.in/plans/planrel/fiveyr/3rd/3planch19.html>.

- — —. 1969. “Government of India, Planning Commission, 4th Five Year Plan.” <http://planningcommission.nic.in/plans/planrel/fiveyr/4th/4planch7.html>.
- — —. 1974. “Government of India, Planning Commission, 5th Five Year Plan.” <http://planningcommission.nic.in/plans/planrel/fiveyr/5th/5planch5.html>.
- — —. 1980. “Government of India, Planning Commission, 6th Five Year Plan.” <http://planningcommission.nic.in/plans/planrel/fiveyr/6th/6planch9.html>.
- — —. 1985. “Government of India, Planning Commission, 7th Five Year Plan.” <http://planningcommission.nic.in/plans/planrel/fiveyr/7th/vol2/7v2ch1.html>.
- — —. 1992. “Government of India, Planning Commission, 8th Five Year Plan.” <http://planningcommission.nic.in/plans/planrel/fiveyr/8th/vol2/8v2ch1.htm>.
- — —. 2000. *National Agriculture Policy, 2000*. Department of Agriculture and Cooperation, Ministry of Agriculture,. <http://agricoop.nic.in/agpolicy02.htm>.
- — —. 2002a. “Government of India, Planning Commission, 10th Five Year Plan.” http://planningcommission.nic.in/plans/planrel/fiveyr/10th/volume2/v2_ch5_1.pdf.
- — —. 2002b. “Government of India, Planning Commission, 9th Five Year Plan.” <http://planningcommission.nic.in/plans/planrel/fiveyr/9th/vol2/v2c4-1.htm>.
- — —. 2012. “Government of India, Planning Commission, 11th Five Year Plan, Volume III.” <http://planningcommission.nic.in/plans/planrel/fiveyr/9th/vol2/v2c4-1.htm>.
- — —. 2011. “9th Five Year Plan (vol 2).” Accessed October 2. <http://planningcommission.nic.in/plans/planrel/fiveyr/9th/vol2/v2c4-1.htm>.
- Granovsky-Larsen, S. 2013. “Between the Bullet and the Bank: Agrarian Conflict and Access to Land in Neoliberal Guatemala.” *Journal of Peasant Studies* 40 (2): 325–50.
- Grant, R. 1993. “Against-The-Grain - Agricultural Trade Policies of the United-States, the European Community and Japan at the Gatt.” *Political Geography* 12 (3): 247–62.
- Gray, L., and B. Dowd-Urbe. 2013. “A Political Ecology of Socio-Economic Differentiation: Debt, Inputs and Liberalization Reforms in Southwestern Burkina Faso.” *Journal of Peasant Studies* 40 (4): 683–702.
- Griffin, K., A. Khan, and A. Ickowitz. “Poverty and the Distribution of Land.” *Journal of Agrarian Change* 2 (3): 279–330.
- Guha, R., and M. Jha. 2007. “Big Retail May Get to Reap Contract Farming Benefits.” *Economic Times*, September 5.
- Gulati, A., and A. Sharma. 1995. “Subsidy Syndrome in Indian Agriculture.” *Economic and Political Weekly* 30 (39): 93–102.
- Guo, Hongdong, and Robert W. Jolly. 2008. “Contractual Arrangements and Enforcement in Transition Agriculture: Theory and Evidence from China.” *Food Policy* 33 (6): 570–75. doi:10.1016/j.foodpol.2008.04.003.
- Gupta, A. 2009. “What Is Dhada-Dhadi System?” *LinkedIn: Agribusiness and Retail*.
- Gupta, D. 2001. “Everyday Resistance or Routine Repression? Exaggeration as a Statagem in Agrarian Conflict.” *Journal of Peasant Studies* 29 (1): 89–108.
- Gurel, B. “Agrarian Change and Labour Supply in Turkey, 1950–1980.” *Journal of Agrarian Change* 11 (2): 195–219.
- Gwynne, R. 2003. “Transnational Capitalism and Local Transformation in Chile.” *Tijdschrift Voor Economische En Sociale Geografie* 94 (3): 310–21.
- Gwynne, R. N. 1999. “Globalisation, Commodity Chains and Fruit Exporting Regions in Chile.” *Tijdschrift Voor Economische En Sociale Geografie* 90 (2): 211–25.
- Hall, D. 2009. “The 2008 World Development Report and the Political Economy of Southeast Asian Agriculture.” *Journal of Peasant Studies* 36 (3): 603–9.
- — —. “Explaining the Diversity of Southeast Asian Shrimp Aquaculture.” *Journal of Agrarian Change* 4 (3): 315–35.
- Hall, R. 2012. “The next Great Trek? South African Commercial Farmers Move North.” *Journal of Peasant Studies* 39 (3-4): 823–43.

- Hall, R., P. Wisborg, S. Shirinda, and P. Zamchiya. "Farm Workers and Farm Dwellers in Limpopo Province, South Africa." *Journal of Agrarian Change* 13 (1): 47–70.
- Hammersley, M. 2000. "Between Marx and Weber: C. Wright Mills on the Role of the Social Scientist." In *Taking Sides in Social Research: Essays on Partisanship and Bias*, 35–59. London and New York: Routledge.
<http://books.google.ca/books?hl=en&lr=&id=EqBvnCyM48IC&oi=fnd&pg=PP5&dq=martyn+hammersley+taking+sides+in+social+research&ots=5f3kTqWGBP&sig=vAY3neyKqSj3DkaFrpDOEHBuLi8>.
- Hanisch, R., and R. Tetzlaff. 1981. "Agricultural Policy, Foreign-Aid and the Rural Poor in the Third-World." *Law and State* 23: 120–43.
- Hanstad, T., R. Nielsen, and J. Brown. 2004. *Land and Livelihoods: Making Land Rights Real for India's Rural Poor*. LSP (livelihood Support Programme) Working Paper 12. Rural Development Institute (RDI), Food and Agriculture Organization of the United Nations.
- Hanstad, T., R. Nielson, Darryl, Vhugen, and T. Haque. 2009. *Learning from Old and New Approaches to Land Reform in India*. Agricultural Land Redistribution: Towards Greater Consensus. Washington D.C.: The World Bank.
- Harris, J. 1991. "Global Institutions and Ecological Crisis." *World Development* 19 (1): 111–22.
- Harris-White, B., D. Mishra, and V. Upadhyay. 2009. "Institutional Diversity and Capitalist Transition: The Political Economy of Agrarian Change in Arunachal Pradesh, India." *Journal of Agrarian Change* 9 (4): 512–47.
- Harriss, J. 1984. "Development and the Rural-Urban Division." *The Journal of Development Studies* 20 (3).
 — — —. 1992. "Does the 'depressor' Still Work? Agrarian Structure and Development in India: A Review of Evidence and Argument." *Journal of Peasant Studies* 19 (2): 189–227.
- Hart, G. 2001. "Development Critiques in the 1990s: Culs de Sac and Promising Paths." *Progress in Human Geography* 25: 649–58.
 — — —. 2002. "Geography and Development: Development/s beyond Neoliberalism" Power, Culture, Political Economy." *Progress in Human Geography* 26: 812–22.
 — — —. 2004. "Geography and Development: Critical Ethnographies." *Progress in Human Geography* 28: 91–100.
- Harvey, D. 1996a. "Dialectics." In *Justice, Nature and the Geography of Difference*. Wiley-Blackwell.
 — — —. 1996b. *Justice, Nature and the Geography of Difference*. 1st ed. Wiley-Blackwell.
 — — —. 2004. "The 'New' Imperialism: Accumulation by Dispossession." *Socialist Register*, 63–87.
 — — —. 2005. "The Neoliberal State." In *Brief History of Neoliberalism*. Oxford University Press.
 — — —. 2006a. "Accumulation by Dispossession." In *Spaces of Global Capitalism*. Verso.
 — — —. 2006b. "Notes towards a Theory of Uneven Geographical Development." In *Spaces of Global Capitalism*, 69–116. Verso.
 — — —. 2007. *A Brief History of Neoliberalism*. Oxford University Press, USA.
 — — —. 2010. *The Enigma of Capital: And the Crises of Capitalism*. Oxford Univ Pr.
 — — —. *Seventeen Contradictions and the End of Capitalism*. <http://backdoorbroadcasting.net/2013/06/david-harvey-seventeen-contradictions-and-the-end-of-capitalism/>.
- Hasan, Z. 1994. "Shifting Ground: Hindutva Politics and the Farmers' Movement in Uttar Pradesh." *Journal of Peasant Studies* 21 (3-4): 165–94.
- Hasse, R., and H. Leiulfurud. 2002. "From Disorganized Capitalism to Transnational Fine Tuning?: Recent Trends in Wage Development, Industrial Relations, and 'Work' as a Sociological Category." *British Journal of Sociology* 53 (1): 107–26.
- Hebinck, P., D. Fay, and K. Kondlo. "Land and Agrarian Reform in South Africa's Eastern Cape Province: Caught by Continuities." *Journal of Agrarian Change* 11 (2): 220–40.
- Heffernan, W. 2000. "Concentration of Ownership and Control in Agriculture." In *Hungry for Profit: The Agribusiness Threat to Farmers, Food and the Environment*, 61–76. New York: Monthly Review Press.
- Hegde, B. 2004. "Role of Commercial Banks in Facilitating Contract Farming". January 12.

- Henderson, G. 1998. "Nature and Fictitious Capital: The Historical Geography of an Agrarian Question." *Antipode* 30 (2): 73–118.
- Henderson, J., P. Dickin, M. Hess, N. Coe, and H. Yeung. 2002. "Global Production Networks and the Analysis of Economic Development." *Review of International Political Economy* 9 (3): 436–64.
- Hennessy, D. 2008. "Economic Aspects of Agricultural and Food Biosecurity." *Biosecurity and Bioterrorism-Biodefense Strategy Practice and Science* 6 (1): 66–77.
- Herod, A. 1999. "Reflections on Interviewing Foreign Elites: Praxis, Positionality, Validity, and the Cult of the Insider." *Geoforum* 30 (4): 313–27.
- Herring, R. 2006. "Why Did 'Operation Cremate Monsanto' Fail? Science and Class in India's Great Terminator-Technology Hoax." *Critical Asian Studies* 38 (4): 467–93.
- Hess, J., and H. Yeung. 2006. "Whither Global Production Networks in Economic Geography? Past, Present, and Future." *Environment and Planning A* 38 (7): 1193–1204.
- Hetherington, K. 2009. "The Strategic Incoherence of Development: Marketing Expertise in the World Development Report." *Journal of Peasant Studies* 36 (3): 653–61.
- Hey, J. 2009a. "Bharti Del Monte on Baby Corn Drive." *Asia Fruit*, April.
- . 2009b. "Del Monte Strikes Banana Deal." *Asia Fruit*, April.
- . 2009c. "Fresh-Cut Plant Blazes Trail for India." *Asia Fruit*, April.
- . 2009d. "MSSL Ties up with Seed Potato Giant." *Asia Fruit*, April.
- . 2009e. "India's Hurdles Not so High." *Fruitnet*, April 7.
- Ho, P., J. Zhao, and D. Xue. 2009. "Access and Control of Agro-Biotechnology: Bt Cotton, Ecological Change and Risk in China." *Journal of Peasant Studies* 36 (2): 345–64.
- Hofman, I., and P. Ho. 2012. "China's 'Developmental Outsourcing': A Critical Examination of Chinese Global 'land Grabs' Discourse." *Journal of Peasant Studies* 39 (1): 1–48.
- Holloway, S. 1983. "Relations Among Core Capitalist States: The Kautsky-Lenin Debate Reconsidered." *Canadian Journal of Political Science* 16 (02): 321–33.
- Holt Giménez, E., and A. Shattuck. 2011. "Food Crises, Food Regimes and Food Movements: Rumblings of Reform or Tides of Transformation?" *Journal of Peasant Studies* 38 (1): 109–44.
- Hron, J., J. Stusek, M. Arnost, J. Huml, and L. Platilova-Vorlickova. 2007. "Diversification - Strategy of Building the Competitive Advantage in Agribusiness." *Agricultural Economics-Zemledelska Ekonomika* 53 (12): 580–84.
- Huddleston, P., and M. Tonts. 2007. "Agricultural Development, Contract Farming and Ghana's Oil Palm Industry." *Geography* 92: 266–78.
- Hunsberger, C. 2010. "The Politics of Jatropa-Based Biofuels in Kenya: Convergence and Divergence among NGOs, Donors, Government Officials and Farmers." *Journal of Peasant Studies* 37 (4): 939–62.
- Huws, U. 2011. "Crisis as Capitalist Opportunity: New Accumulation through Public Service Commodification." *Socialist Register* 48 (48).
- Iarossi, G. 2009. *The Investment Climate in 16 Indian States*. World Bank Policy Research Working Paper 4817. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1327286&http://scholar.google.ca/scholar?q=%27world+bank+2009+punjab+investment%27&hl=en&btnG=Search&as_sdt=1%2C5&as_sdt=on.
- IFAD. 2011. "IFAD Strategic Framework 2011-2015: Enabling Poor Rural People to Improve Their Food Security and Nutrition, Raise Their Incomes and Strengthen Their Resilience". International Fund for Agriculture Development.
- India Infoline News service. 2011. "Encourage Contract Farming by Corporates to Improve Productivity: ASSOCHAM." *IndiaInfoline.com*. <http://www.indiaonline.com/Markets/News/Encourage-contract-farming-by-corporates-to-improve-productivity-ASSOCHAM/5138909391>.
- Ingram, J., and J. Kirwan. 2011. "Matching New Entrants and Retiring Farmers through Farm Joint Ventures: Insights from the Fresh Start Initiative in Cornwall, UK." *Land Use Policy* 28 (4): 917–27.
- Institute for Competitiveness. 2011. "India's Most Competitive Cities 2011." *Business World*, December 19.
- Interviewee. 2009a. Global Agrisystems.
- . 2009b. Government of India: Agriculture Extension.

— — — . 2009c. International Food Policy Research Institute.

— — — . 2009d. International Food Policy Research Institute (IFPRI).

— — — . 2009e. Contract Farmer Kuljit Singh Mangat, Machewara.

— — — . 2010. Contract Farmer, floriculture, Sardar Gurmeet Singh.

Interviewee, Agri-Marketing Head, PepsiCo. Ltd. 2007. Interview with Agri-Marketing Head at Pepsi Co. Ltd on 23 December 2007.

Interviewee, Assistant Agriculture Marketing Advisor Ministry of Agriculture, Government of India. 2009. Interview with Assistant Agriculture Marketing Advisor Ministry of Agriculture, Government of India on 17 March 2009.

Interviewee, Cluster Head-Commercial Finance, Tata Capital Ltd. 2009. Interview with Cluster Head-Commercial Finance, Corporate Finance - Tata Capital: Reuben Ray.

Interviewee, consultant Ravdeep Kaur, APEDA. 2009. Interview with consultant at APEDA - Agricultural and Processed Food Products Export Development Authority.

Interviewee, Contract Farmer - Gurnail Singh. 2010. Interview with Contract Farmer Gurnail Singh.

Interviewee, contract farmers - Mandeep Singh and Randeep Singh. 2009. Interview with contract farmers in Fathegarh Sahib.

Interviewee, Crop Marketing Head Vegetable South Asia. 2010. Interview with - Crop Marketing Head Vegetable South Asia, Syngenta India Ltd. on 6 December 2010.

Interviewee, Director Tilda Riceland Pvt. - R.S. Seshadri. 2007. Interview with Director of Tilda Riceland Pvt. - R.S. Seshadri.

Interviewee, Director, SCS Consulting Marketing Firm. 2009. Interview with Director of SCS Consulting Marketing Firm-Sumit Saran.

Interviewee, Dupont Manager Registration and Regulatory Affairs. 2010. Interview with Dupont Manager - Registration and Regulatory Affairs Crop Protection Products - Dr. Abraham Mathew.

Interviewee, Executive Vice President and Head Agri-Business Group, Om Kotak Mahindra Bank. 2010. Interview with Executive Vice President and head Agri-Business Group, Kotak Mahindra Bank.

Interviewee, Field Agent. 2009. Interview with field agent - Harkeerat Singh, Satnam Agro.

Interviewee, General Manager - Technical Services Crop Protection. 2010. Interview with General Manager - Technical Services Crop Protection - BASF - The Chemical Company - K.S. Thyagarajan on 10 December 2012.

Interviewee, General Manager, Agribusiness Development Bharti Del Monte India Pvt. Ltd. 2009. Interview with General Manager, Agribusiness Development Bharti Del Monte India Pvt. Ltd., on 18 March 2009).

Interviewee, HDFC Vice President. 2010. Interview with HDFC Vice President - Mr. Sahgal.

Interviewee, IFPRI. 2009. Interview with Meeta Punjabi, Consultant at IFPRI - International Food Policy Research Institute.

Interviewee, Joint Director and Head of Agriculture, Water and Rural Development, FICCI. 2009. Interview with Joint Director and Head of Agriculture, Water and Rural Development at FICCI (Federation of Indian Chambers of Commerce and Industry) on 26th March, 2009.

Interviewee, Manager-Registration & Regulatory Affairs and National Market Development Manager at DuPont India. 2010. Interview with Manager-Registration & Regulatory Affairs and National Market Development Manager at DuPont India on 15 December 2010.

Interviewee, Managing Director, K.S. Narayanan. 2010. Interview with Managing Director K.S. Narayan - McCain Foods India Pvt. Ltd. on 16 December 2010.

Interviewee, National Market Development Manager DuPont Crop Protection, India. 2010. Interview with National Market Development Manager DuPont Crop Protection, India - Dr. Sanjay Sharma on 15 December 2010.

Interviewee, Promoter Director at Siddhivinayak Processing Pvt. Ltd. 2010. Interview with Hemant Gaur - Promoter Director at Siddhivinayak Processing Pvt. Ltd., on 3 December 2010.

Interviewee, Small-Scale Non-Contract Farmer. 2009. Interview with small-scale non-contract farmers on 20 May 2009.

- Interviewee, Supplier Development Manager, Nestle. 2007. Supplier Development Manager, Nestle India, 2007.
- Interviewee, VP & Advisor Fresh, Bharti Wal-Mart India, and Interviewee. 2009. Interview with VP & Advisor Fresh Bharti Wal-Mart India - Jai Oberoi.
- Interviewees in Focus Group Discussions with Contract Farmers. 2009. Focus Group Interview with Contract Farmers in Punjab on 15 April 2009.
- Isakson, S. 2009. "No Hay Ganancia En La Milpa: The Agrarian Question, Food Sovereignty, and the on-Farm Conservation of Agrobiodiversity in the Guatemalan Highlands." *Journal of Peasant Studies* 36 (4): 725–59.
- ISSE. 2009. "Join the International Students for Social Equality: Build an ISSE Club at Your College or High School." *International Students for Social Equality*. <http://intsse.com/join>.
- Ito, S. 2002. "From Rice to Prawns: Economic Transformation and Agrarian Structure in Rural Bangladesh." *Journal of Peasant Studies* 29 (2): 47–70.
- Iyer, S. 2012. "Montek for More Jobs in Manufacturing, Mechanised Agriculture." *The Hindu*, June 9. http://www.thehindubusinessline.com/industry-and-economy/economy/article3509013.ece?homepage=true&ref=wl_home.
- Jacob, C. 2009. "Looking beyond the Low-Hanging Fruit." *Asia Fruit*, April.
- Jacoby, Tim. 2006. "Agriculture, the State and Class Formation in Turkey's First Republic (1923–60)." *Journal of Peasant Studies* 33 (1): 34–60.
- Jan, Muhammad Ali. "Rethinking Capitalist Development: Primitive Accumulation, Governmentality and Post-colonial Capitalism." *Journal of Agrarian Change* 13 (2): 334–37.
- Janvry, A. 1981. *The Agrarian Question and Reformism in Latin America*. Baltimore: The John Hopkins U. R.
- Jayati, G. 2011. "Bias as Base." *Frontline*, April 22.
- Jensen, N. 2006. *Nation-State and the Multinational Corporation*. Princeton University Press.
- Jewitt, S., and K. Baker. 2007. "The Green Revolution Re-Assessed: Insider Perspectives on Agrarian Change in Bulandshahr District, Western Uttar Pradesh, India." *Geoforum* 38 (1): 73–89.
- Jha, P. 2005. "Punjab Cotton Farmers Face Distress Sale." *Business Standard India*, October 5. <http://www.business-standard.com/india/news/punjab-cotton-farmers-face-distress-sale/220296/>.
- — —. "Continuity and Change: Some Observations on the Landscape of Agricultural Labourers in North Bihar, India." *Journal of Agrarian Change* 4 (4): 509–31.
- Jha, R., and M. Rhodes. 1999. "Some Imperatives of the Green Revolution: Technical Efficiency and Ownership of Inputs in Indian Agriculture." *Agricultural and Resource Economics Review* 28: 57–64.
- Jodhka, S. 1998. "Attached Labour in Haryana." In *Punjab Is Prosperity and Violence*. Chandigarh: K.K. Publishers. Institute of Punjab Studies.
- Johl, S. 1986. *Report of the Expert Committee on Diversification of Agriculture in Punjab*. The Government of Punjab.
- Johl, S., K. Aulakh, A. Dhindsa, S. Grewal, J. Singh, K. Dhaliwal, G. Nanda, et al. 2005. *Agricultural Production Pattern Adjustment Programme in Punjab for Productivity and Growth*. Chief Minister's Advisory Committee on Agriculture Policy and Restructuring.
- Johnston, D. 2010. "Introduction to a Symposium on the 2007–8 World Food Crisis." *Journal of Agrarian Change* 10 (1): 69–71.
- — —. "Who Needs Immigrant Farm Workers? A South African Case Study." *Journal of Agrarian Change* 7 (4): 494–525.
- Joshi, P.K. 2011. "Quality of Agriculture Education on the Decline." *NISCAIR Blog*. <http://blog.niscair.res.in/?p=194>.
- Kaiwar, V. 1992. "Property Structures, Demography and the Crisis of the Agrarian Economy of Colonial Bombay Presidency." *Journal of Peasant Studies* 19 (2): 255–300.
- Kalfagianni, A., and D. Fuchs. 2013. "The GlobalG.A.P." In *Business Regulation and Non-State Actors: Whose Standards? Whose Development?* Vol. 93. Routledge. http://books.google.ca/books?hl=en&lr=&id=IQzZZQ9QzOAC&oi=fnd&pg=PR11&dq=The+GlobalG.A.P.+Agni+Kalfagianni+and+Doris+Fuchs&ots=9f-nTKn4qj&sig=dFZCt2X_dVsnQLRf4eMrdKutyZy.

- Kammardi, T. 2009. "Diversification: A Ploy to Reduce Support to Agriculture." *Seminar*, March.
- Kannan, K. 1999. "Rural Labour Relations and Development Dilemmas in Kerala: Reflections on the Dilemmas of a Socially Transforming Labour Force in a Slowly Growing Economy." *Journal of Peasant Studies* 26 (2-3): 140–81.
- Kapadia, K., and J. Lerche. 1999. "Introduction." *Journal of Peasant Studies* 26 (2-3): 1–9.
- Karapinar, B., and C. Häberli. 2010. *Food Crises and the WTO: World Trade Forum*. Cambridge Univ Pr.
- Karat, P. 2004. "Federalism And the Political System in India." *The Marxist* 20 (03): 1–9.
- Kautsky, K. *The Agrarian Question*. 1988th ed. Vol. 1. 2 vols. Zwan Publications.
- Kautsky, Karl. 1988. "The Agrarian Question, Vol. 1." *London, Winchester, Mass: Zwan Publications*.
- Kay, C. 2009. "Development Strategies and Rural Development: Exploring Synergies, Eradicating Poverty." *Journal of Peasant Studies* 36 (1): 103–37.
- — —. "Chile's Neoliberal Agrarian Transformation and the Peasantry." *Journal of Agrarian Change* 2 (4): 464–501.
- — —. "Rural Poverty and Development Strategies in Latin America." *Journal of Agrarian Change* 6 (4): 455–508.
- Kela, S. 2006. "Adivasi and Peasant: Reflections on Indian Social History." *Journal of Peasant Studies* 33 (3): 502–25.
- Kelly, P. 2002. "Spaces of Labor Control: Comparative Perspectives from Southeast Asia." *Transactions of the Institute of British Geographers* 27 (4): 395–411.
- — —. 2009. "From Global Production Networks to Global Reproduction Networks: Households, Migration, and Regional Development in Cavite, the Philippines." *Regional Studies* 43 (3): 449–61.
- — —. 2013. "Production Networks, Place and Development: Thinking through Global Production Networks in Cavite, Philippines." *Geoforum* 44 (18): 82–92.
- Kepe, T. 2009. "Unjustified Optimism: Why the World Bank's 2008 'agriculture for Development' Report Misses the Point for South Africa." *Journal of Peasant Studies* 36 (3): 637–43.
- Key, N., and D. Runsten. 1999. "Contract Farming, Smallholders, and Rural Development in Latin America: The Organization of Agroprocessing Firms and the Scale of Outgrower Production." *World Development* 27 (2): 381–401. doi:10.1016/S0305-750X(98)00144-2.
- Kiely, R. 1995. "The Sociology Of Development : The Impasse And Beyond." *Routledge, Chapter 1*: 2.
- Kirsten, J. 2002. "Linking Agribusiness and Small-Scale Farmers in Developing Countries: Is There a New Role for Contract Farming?" *Development Southern Africa* 19 (4): 1–26.
- Kloppenborg, J. 2010. "Impeding Dispossession, Enabling Repossession: Biological Open Source and the Recovery of Seed Sovereignty." *Journal of Agrarian Change* 10 (3): 367–88.
- Kohli, A. 2012. *Poverty Amid Plenty in the New India*. Cambridge University Press.
- Konings, P. 1998. "Unilever, Contract Farmers and Co-operatives in Cameroon: Crisis and Response." *Journal of Peasant Studies* 26 (1): 112–38.
- Korovkin, T. 1992. "Peasants, Grapes and Corporations - the Growth of Contract Farming in a Chilean Community." *Journal of Peasant Studies* 19 (2): 228–54.
- KPMG. 2006. "Background Paper for CII Conference-Facilitating Bank Finance for Contract Farming." In .
- Kumar, A. 2000. "Beyond Muffled Murmurs of Dissent? Kisan Rumour in Colonial Bihar." *Journal of Peasant Studies* 28 (1): 95–125.
- Kumar, D. 2005. "Roles of the Banking Sector in Indian Agriculture: A Paradigm Shift." *Professional Banker*, June, 60–64.
- — —. 2009. "Pushing Big Box Retail in Agriculture." *Seminar*, March.
- Kumar, P. 2008. "Diversification through Contract Farming: A Case Study of Punjab." In *Contract Farming and Tenancy Reforms – Entangled without Tether*, 158–80. New Delhi: Concept Publishing Company.
- Kumbhakar, S., and A. Bhattacharyya. 1992. "Price Distortions and Resource-Use Efficiency in Indian Agriculture: A Restricted Profit Function Approach." *The Review of Economics and Statistics* 74 (2): 231–39.

- Kunnath, G. 2006. "Becoming a Naxalite in Rural Bihar: Class Struggle and Its Contradictions." *Journal of Peasant Studies* 33 (1): 89–123.
- Labban, M. 2008. "Contradiction of Space, Centralization of Capital, and the Hybrid State Oil Company: The Case of Russia." *Human Geography - A New Radical Journal* 1 (2).
- Lai, K., and H. Yeung. 2003. "Contesting the State: Discourses of the Asian Economic Crisis and Mediating Strategies of Electronics Firms in Singapore." *Environment and Planning A* 35 (3): 463–88.
- Lamont, J. 2011. *The New Trade Routes: India*. Financial Times: India Report.
- Lang, T. 2010. "Crisis? What Crisis? The Normality of the Current Food Crisis." *Journal of Agrarian Change* 10 (1): 87–97.
- Larsen, M. "Is Oligopoly a Condition of Successful Privatization? The Case of Cotton in Zimbabwe." *Journal of Agrarian Change* 2 (2): 185–205.
- Latruffe, L., S. Davidova, and G. Blaas. 2008. "What Is the Future of Corporate Farms under the Conditions of Common Agricultural Policy?" *Sociologia* 40 (2): 127–40.
- Lavers, T. 2012a. "'Land Grab' as Development Strategy? The Political Economy of Agricultural Investment in Ethiopia." *Journal of Peasant Studies* 39 (1): 105–32.
- . 2012b. "Patterns of Agrarian Transformation in Ethiopia: State-Mediated Commercialisation and the 'land Grab'." *Journal of Peasant Studies* 39 (3–4): 795–822.
- Le Mons Walker, K. 2006. "'Gangster Capitalism' and Peasant Protest in China: The Last Twenty Years." *Journal of Peasant Studies* 33 (1): 1–33.
- Lee Peluso, N., S. Afiff, and N. Rachman. "Claiming the Grounds for Reform: Agrarian and Environmental Movements in Indonesia." *Journal of Agrarian Change* 8 (2–3): 377–407.
- Lee, S. 2010. "The Ties Made in the Harvest: Nicaraguan Farm-Worker Networks in Costa Rica's Agricultural Exports." *Journal of Agrarian Change* 10 (4): 510–36.
- Lenin, V. 1903. "The Tasks of the Revolutionary Youth." Marxists Internet Archive. <http://www.marxists.org/archive/lenin/works/1903/sep/30b.htm>.
- . 1964. "Karl Kautsky. Die Agrarfrage." In *Lenin Collected Works*, 4:94–99. Moscow: Progress Publishers. <http://www.marxists.org/archive/lenin/works/1899/mar/kautsky.htm>.
- . 1987a. *Essential Works of Lenin: "What Is to Be Done?" And Other Writings*. Dover Pubns.
- . 1987b. "Imperialism, The Highest Stage of Capitalism." In *Essential Works of Lenin: "What Is to Be Done?" And Other Writings*. Dover Pubns.
- . 1987c. "The Development of Capitalism in Russia." In *Essential Works of Lenin: "What Is to Be Done?" And Other Writings*. Dover Publications, Inc. New York.
- Lerche, J. 1999. "Politics of the Poor: Agricultural Labourers and Political Transformations in Uttar Pradesh." *Journal of Peasant Studies* 26 (2–3): 182–241.
- . 2007. "A Global Alliance against Forced Labour? Unfree Labour, Neo-Liberal Globalization and the International Labour Organization." *Journal of Agrarian Change* 7 (4): 425–52.
- Lerche, J., A. Shah, and B. Harriss-White. 2013. "Introduction: Agrarian Questions and Left Politics in India." *Journal of Agrarian Change* 13 (3): 337–50.
- Levidow, L., and K. Boschert. 2008. "Coexistence or Contradiction? GM Crops versus Alternative Agricultures in Europe." *Geoforum* 39 (1): 174–90.
- Levien, M. 2012. "The Land Question: Special Economic Zones and the Political Economy of Dispossession in India." *Journal of Peasant Studies* 39 (3–4): 933–69.
- Lewis, J. "Agrarian Change and Privatization of Ejido Land in Northern Mexico." *Journal of Agrarian Change* 2 (3): 401–19.
- Li, T. 2010a. "Peasants and Globalization: Political Economy, Rural Transformation and the Agrarian Question." *Canadian Journal of Development Studies* 29 (3–4): 519–21.
- . 2010b. "To Make Live or Let Die? Rural Dispossession and the Protection of Surplus Populations." *Antipode* 41 (1): 66–93.
- . 2011. "Centering Labor in the Land Grab Debate." *Journal of Peasant Studies* 38 (2): 281–98.

- Lindberg, S. 1994. "New Farmers' Movements in India as Structural Response and Collective Identity Formation: The Cases of the Shetkari Sanghatana and the BKU." *Journal of Peasant Studies* 21 (3-4): 95–125.
- Liodakis, G. 1997. "Technological Change in Agriculture: A Marxist Critique." *Sociologia Ruralis* 37 (1): 61–&.
- Lipton, M. 1984. "Urban Bias Revisited." *Journal of Development Studies* 20 (3): 139–66.
- Lipton, M., and R. Longhurst. 1989. *New Seeds and Poor People*. Taylor & Francis.
- Little, P. D. 1994. "Contract Farming and Development Question." In Vol. Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa. The University of Wisconsin Press.
- Lobao, L., and P. Thomas. 1992. "Political Beliefs in an Era of Economic Decline - Farmers Attitudes Toward State Economic Intervention, Trade, and Food Security." *Rural Sociology* 57 (4): 453–75.
- Longo, S., and R. York. 2008. "Agricultural Exports and the Environment: A Cross-National Study of Fertilizer and Pesticide Consumption." *Rural Sociology* 73 (1): 82–104.
- Ludden, D. 2004. *Agricultural Production and South Asian History*. Second Edition. Oxford University Press.
- Madhavan, N. 2012. "Bang on Target." *Business Today*, August 19.
<http://businesstoday.intoday.in/story/innovation-agriculture-precision-farming/1/186624.html>.
- — —. 2013. "Precision Farming: Order and Method." *Business Today*, January 6.
<http://businesstoday.intoday.in/story/how-precision-farming-makes-agriculture-profitable/1/190767.html>.
- Magdoff, F. 1982. "Pros and Cons of Agricultural Mechanization in the Third-World." *Monthly Review-an Independent Socialist Magazine* 34 (1): 33–45.
- Mahler, V. 1981. "Mining, Agriculture, and Manufacturing - the Impact of Foreign-Investment on Social Distribution in Third-World Countries." *Comparative Political Studies* 14 (3): 267–97.
- Mallick, S. 2006. "Certain Aspects of Indian Agriculture." *Update - Series 12*, July, 1–50.
- Malseed, K. "Where There Is No Movement: Local Resistance and the Potential for Solidarity." *Journal of Agrarian Change* 8 (2-3): 489–514.
- Mamen, K. 2007. "Facing Goliath: Challenging the Impacts of Supermarket Consolidation on Our Local Economies, Communities, and Food Security." *Policy Brief, Oakland Institute* 1 (3).
- Mani, A. 2011. "[Reader-List] MSP for Kharif Crops 2011-12", June 19. <http://mail.sarai.net/pipermail/reader-list/2011-June/028577.html>.
- Mann, S., and J. Dickinson. 1978. "Obstacles to the Development of a Capitalist Agriculture." *The Journal of Peasant Studies* 5 (4): 466–81.
- Marks, B. "The Political Economy of Household Commodity Production in the Louisiana Shrimp Fishery." *Journal of Agrarian Change* 12 (2-3): 227–51.
- Marschke, M., D. Szablowski, and P. Vandergeest. 2008. "Engaging Indigeneity in Development Policy." *Development Policy Review* 26 (4): 483–500.
- Martin, R. "Reading Capital for the Socializing Politics of Globalization." *Environment And Planning D-Society* 18: 37–51.
- Martinez-Alier, J. 2011. "The EROI of Agriculture and Its Use by the Via Campesina." *Journal of Peasant Studies* 38 (1): 145–60.
- Martínez-Torres, M., and P. Rosset. 2010. "La Vía Campesina: The Birth and Evolution of a Transnational Social Movement." *Journal of Peasant Studies* 37 (1): 149–75.
- Marx, K. 1845. *Thesis on Feuerbach*. <http://www.marxists.org/archive/marx/works/1845/theses/>.
- — —. 1965. *Pre-Capitalist Social Formation*. New York: International Publishers.
- — —. 1993. *Grundrisse: Foundations of the Critique of Political Economy (Rough Draft)*. Penguin Books in association with New Left Review.
- Marx, K., and F. Engels. 1967. *The Communist Manifesto - With an Introduction by A.J.P. Taylor*. Pelican Book.
- Marx, K., and E. Mandel. 1990. *Capital: A Critique of Political Economy - Volume I*. Penguin Classics.
- — —. 1991. *Capital: A Critique of Political Economy - Volume III*. Penguin Classics.
- Masakure, O., and S. Henson. 2005. "Why Do Small-Scale Producers Choose to Produce under Contract? Lessons from Nontraditional Vegetable Exports from Zimbabwe." *World Development* 33 (10): 1721–33.

- Masondo, D. 2010. "Vladimir Lenin and Karl Kautsky and the Agrarian Question in the South African Historiography." In New York.
- Masuka, Godwin. 2012. "Contests and Struggle: Cotton Farmers and COTTCO in Rushinga District, Zimbabwe, 1999–2006." *Geoforum* 43 (3): 573–84.
- McCain Publicity Material. 2008. *Potato Cultivation in India*.
- McIlwaine, C. 1997. "Progress Reports. Third-World Development: Urbanizing for the Future." *Progress in Human Geography* 21: 406–13.
- McKinney, K. 2013. "Troubling Notions of Farmer Choice: Hybrid Bt Cotton Seed Production in Western India." *Journal of Peasant Studies* 40 (2): 351–78.
- McMichael, P. 2009a. "Banking on Agriculture: A Review of the World Development Report 2008." *Journal of Agrarian Change* 9 (2): 235–46.
- McMichael, P. 1992. "Tensions Between National and International Control of the World Food Order - Contours of a New Food Regime." *Sociological Perspectives* 35 (2): 343–65.
- — —. 2009b. "A Food Regime Genealogy." *Journal of Peasant Studies* 36 (1): 139–69.
- — —. 2011. "The Food Regime in the Land Grab: Articulating 'Global Ecology' and Political Economy." In Institute of Development Studies, University of Sussex.
- — —. 2012. "The Land Grab and Corporate Food Regime Restructuring." *Journal of Peasant Studies* 39 (3–4): 681–701.
- Mehra, P. 23 November, 2013a. "India Rejects WTO Peace Clause Proposal." *The Hindu*.
<http://www.thehindu.com/news/national/india-rejects-wto-peace-clause-proposal/article5380435.ece>.
- — —. 6 December 2013b. "Meetings Raise Hope of Bali Package." *The Hindu*.
<http://www.thehindu.com/business/Industry/no-agreement-better-than-a-bad-one-sharma/article5424933.ece>.
- Mehta, J. 2002. "Changing Agrarian Structure." *Alternative Economic Survey* 2002–2003, 27–39.
- Mies, M. 1995. "'Gender' and Global Capitalism." In *Capitalism and Development*, 107–22. London: Routledge.
- Miller, L. 1995. "Agribusiness, Contract Farmers and Land-Use Sustainability in North-West Tasmania." *Australian Geographer* 26 (2): 104–11.
- Ministry of Agriculture & Cooperation, GoI. 2002. *Report of Inter-Ministerial Task Force on Agricultural Marketing Reforms*. Krishi Bhawan, New Delhi: Ministry of Agriculture & Cooperation, GoI.
- Ministry of Agriculture, GoI, and Ministry of Information and Broadcasting, GoI. 2000. *National Agriculture Policy*. <http://rrtd.nic.in/agriculture.html> & <http://agricoop.nic.in/agpolicy02.htm>.
- Ministry of Finance, GoI. 2007. *Report of the Expert Group on Agricultural Indebtedness*. Banking Division, Department of Economic Affairs, Ministry of Finance, Government of India.
- Mishra, J. 2003a. "Discussant's Note on Agrarian and Credit Institutions." In *Institutional Change in Indian Agriculture*. New Delhi: National Centre For Agricultural Economics And Policy Research.
- — —. 2003b. "Discussant's Notes." In *Institutional Change in Indian Agriculture*, 325–26. New Delhi: National Centre for Agricultural Economics and Policy Research.
- Mohan, C. 2011. "Agri Export Zones in India." *College of Agricultural Banking*. Deputy General Manager and Member of Faculty, Reserve Bank of India, College of Agricultural Banking, Pune. Accessed July 26.
<http://cab.org.in/Lists/Knowledge%20Bank/DispForm.aspx?ID=5>.
- Mohanty, B. 2005. "'We Are Like the Living Dead': Farmer Suicides in Maharashtra, Western India." *Journal of Peasant Studies* 32 (2): 243–76.
- Mondiale, B. 2007. *World Development Report 2008: Agriculture for Development*. World Bank.
- Money, K. 2006. "Diversification Is the Key to Success, Interview with Chairman APEDA." *Agriculture Today*.
- Moore, M. 1984. "Political Economy and the Rural-urban Divide, 1767–1981." *Journal of Development Studies* 20 (3): 5–27.
- Morse, J., and L. Niehaus. 2009. *Mixed Method Design: Principles and Procedures*. Vol. 4. Left Coast Pr.
- Moseley, W. 2007. "Neoliberal Agricultural Policy versus Agrarian Justice: Farm Workers and Land Redistribution in South Africa's Western Cape Province." *South African Geographical Journal* 89 (1): 4–13.

- Motiram, S. 2007. "Attached Labour Contracts in Agriculture: Results and Analysis from a Survey in South India." *Canadian Journal of Development Studies-Revue Canadienne D Etudes Du Developpement* 28 (1): 99–117.
- Moyo, S. 2011a. "Changing Agrarian Relations after Redistributive Land Reform in Zimbabwe." *Journal of Peasant Studies* 38 (5): 939–66.
- — —. 2011b. "Three Decades of Agrarian Reform in Zimbabwe." *Journal of Peasant Studies* 38 (3): 493–531.
- Mukherjee-Reed, A. 2003. *Corporate Capitalism in Contemporary South Asia: Conventional Wisdoms and South Asian Realities*. Palgrave Macmillan.
- — —. 2010. "The Wrongs About the Right To Food." *Outlook*, September 8.
<http://www.outlookindia.com/article.aspx?267030>.
- Mukherjee-Reed, A., and Apurba Kundu. 2000. "Corporate Capitalism in Contemporary South Asia: Realities and Interpretations." *Contemporary South Asia* 9 (2): 127–39. doi:10.1080/713658724.
- Mukherjee-Reed, A., and D. Reed. 2009. "Fair Trade and Development: What Are the Implications of Mainstreaming?" *Universitas Forum* 1 (2). Retrieved from
<http://www.universitasforum.org/index.php/ojs/article/view/19>.
- Mukunth, V. 2013. "Let's unMonsanto the Debate." *The Hindu*, September 2.
<http://www.thehindu.com/opinion/blogs/blogs-the-copernican/article5085741.ece>.
- Mullings, B. 1999. "Insider or Outsider, Both or Neither: Some Dilemmas of Interviewing in a Cross-Cultural Setting." *Geoforum* 30 (4): 337–50.
- — —. 2005. "Women Rule? Globalization and the Feminization of Managerial and Professional Workspaces in the Caribbean." *Gender Place and Culture* 12 (1): 1–27.
- Murray Li, T. 2009. "Reading the World Development Report 2008: Agriculture for Development." *Journal of Peasant Studies* 36 (3): 591–92.
- Murray, W. 2002. "From Dependency to Reform and Back Again: The Chilean Peasantry during the Twentieth Century." *Journal of Peasant Studies* 29 (3-4): 190–227.
- — —. 2006. "Neo-Feudalism in Latin America? Globalisation, Agribusiness, and Land Re-Concentration in Chile." *Journal of Peasant Studies* 33 (4): 646–77.
- Muterbaugh, T. 2005. "Just-in-Space: Certified Rural Products, Labour of Quality, and Regulatory Spaces." *Journal of Rural Studies* 21: 389–402.
- NABARD. 2004. *Infrastructure for Agriculture and Rural Development – An Impact Assessment of Investments in Rural Roads and Bridges under RIDF*.
- Nanda, M. 1995. "Transnationalisation of Third World State and Undoing of Green Revolution." *Economic and Political Weekly* 30 (4): PE20–PE30.
- — —. 2001. "We Are All Hybrids Now: The Dangerous Epistemology of Post-colonial Populism." *Journal of Peasant Studies* 28 (2): 162–86.
- National Policy for Farmers. 2007. *National Policy for Farmers 2007*. Delhi: Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India.
- Nazir, P. 2000. "Origins of Debt, Mortgage and Alienation of Land in Early Modern Punjab." *Journal of Peasant Studies* 27 (3): 55–91.
- Neo, H. 2010. "Geographies of Subcontracting." *Geography Compass* 4 (8): 1013–24.
- Nigam, A. 2007. "NAPM Report: To Nandigram via Singur." <http://kafila.org/2007/02/27/napm-report-to-nandigram-via-singur/>.
- Njuki, Jemimah, Susan Kaaria, Angeline Chamunorwa, and Wanjiku Chiuri. 2011. "Linking Smallholder Farmers to Markets, Gender and Intra-Household Dynamics: Does the Choice of Commodity Matter?" *European Journal of Development Research* 23 (3): 426–43. doi:10.1057/ejdr.2011.8.
- Nolan, P., and G. White. 1984. "Urban Bias, Rural Bias or State Bias? Urban-rural Relations in Post-revolutionary China." *Journal of Development Studies* 20 (3): 52–81. doi:10.1080/00220388408421906.
- Novo, C. M. 2004. "The Making of Vulnerabilities: Indigenous Day Laborers in Mexico's Neoliberal Agriculture." *Identities-Global Studies in Culture and Power* 11 (2): 215–39.

- NSSO 48th Round. 1992. *Land and Livestock Holdings Survey - NSS 48th Round: Operational Land Holdings in India*. 407. http://mospi.nic.in/rept%20_%20pubn/ftest.asp?rept_id=407&type=NSSO.
- Nuijten, M. 2004. "Peasant 'Participation', Rural Property and the State in Western Mexico." *Journal of Peasant Studies* 31 (2): 181–209.
- O'Neill, J., D. Wilson, R. Purushothaman, and A. Stupnytska. 2005. "How Solid Are the BRICs?" *Goldman Sachs Economic Research*, Global Economics Paper, , no. 134: 24.
- OECD. *OECD Investment Policy Reviews: India*. OECD Investment Policy Reviews: India 2009.
- Ojah, O. 2007. "11th Plan Farm Sector Outlay May Rise 142%." *The Financial Express*, June 4. <http://www.financialexpress.com/news/11th-plan-farm-sector-outlay-may-rise-142/200876/0>.
- Olesen, T. 2009. "Transnational Agrarian Movements Confronting Globalization – Edited by Saturnino M. Borras Jr, Marc Edelman and Cristóbal Kay." *Journal of Agrarian Change* 9 (4): 578–82.
- Ollman, B. 2003. *Dance of the Dialectic: Steps in Marx's Method*. Univ of Illinois Press Urbana and Chicago.
- Omvedt, G. 1994. "'We Want the Return for Our Sweat': The New Peasant Movement in India and the Formation of a National Agricultural Policy." *Journal of Peasant Studies* 21 (3-4): 126–64.
- Ortiz, S., and S. Aparicio. 2006. "Contracts, Control and Contestation: The Harvest of Lemons for Export." *Journal of Peasant Studies* 33 (2): 161–88.
- Ortiz, S., S. Aparicio, and N. Tadeo. "Dynamics of Harvest Subcontracting: The Roles Played by Labour Contractors." *Journal of Agrarian Change* 13 (4): 488–519.
- Overdorf, J. 2011. "Food Crisis Threatens India." <http://www.globalpost.com/dispatch/india/110106/food-security-crisis-economy>.
- Oya, C. 2005. "Sticks and Carrots for Farmers in Developing Countries: Agrarian Neoliberalism in Theory and Practice." In *Neoliberalism - A Critical Reader*, 127–34. Pluto Press.
- . 2007. "Stories of Rural Accumulation in Africa: Trajectories and Transitions among Rural Capitalists in Senegal." *Journal of Agrarian Change* 7 (4): 453–93.
- . 2009a. "Introduction to a Symposium on the World Development Report 2008: Agriculture for Development?" *Journal of Agrarian Change* 9 (2): 231–34.
- . 2009b. "The World Development Report 2008: Inconsistencies, Silences, and the Myth of 'win-Win' Scenarios." *Journal of Peasant Studies* 36 (3): 593–601.
- . 2013. "Methodological Reflections on 'land Grab' Databases and the 'land Grab' Literature 'rush'." *Journal of Peasant Studies* 40 (3): 503–20.
- . "Contract Farming in Sub-Saharan Africa: A Survey of Approaches, Debates and Issues." *Journal of Agrarian Change* 12 (1): 1–33.
- Page, T. 2010. "Can the State Create Campesinos? A Comparative Analysis of the Venezuelan and Cuban Repeasantization Programmes." *Journal of Agrarian Change* 10 (2): 251–72.
- Pal, S. 2008. "Agricultural R&D Policy and Institutional Reforms: Learning from the Experience of India and China." *Economic and Political Weekly* June 28: 145–55.
- Pal, S., National Centre for Agricultural Economics, and Policy Research (India). 2003. *Institutional Change in Indian Agriculture*. National Centre For Agricultural Economics And Policy Research.
- Pal, S., Mruthyunjaya, P.K. Joshi, and R. Saxena. 2003. "Institutional Changes in Indian Agriculture." In *Institutional Change in Indian Agriculture*. New Delhi: National Centre for Agricultural Economics and Policy Research.
- Panini, M. 1999. "Trends in Cultural Globalisation - From Agriculture to Agribusiness in Karnataka." *Economic and Political Weekly* 34 (31): 2168–73.
- Parliamentary Question 2009. 2009. Parliamentary Question. Lok Sabha Unstarred question no.364, from Minister of Finance, answered on 20 November 2009. <http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=81209>.
- Parliamentary Question 2010. 2010. Parliamentary Question. Lok Sabha Unstarred question no. 131 from Ministry of Agriculture. Answered on 9 November 2010 - Production of Potato. <http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=96813>.

- Parliamentary Question 2011. 2011. Parliamentary Question. Lok Sabha Unstarred question no. 94 from Minister of Agriculture, answered on 1 march 2011 -Hybrid Cotton Seeds.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=102635>.
- Parliamentary Question 2012 (b). 2012. Parliamentary Question. Lok Sabha Unstarred question no. 2236 from Minister of Agriculture, answered on 27 March 2012 - Use of Hybrid Seeds.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=119577>.
- Parliamentary Question 2013. 2013. Parliamentary Question. Lok Sabha Unstarred question no. 5690 from Ministry of consumer affairs, food and public distribution. Answered on 30 april 2013 - Export of Wheat.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=139711>.
- Parliamentary Question 2013b. 2013. Parliamentary Question. Lok Sabha Unstarred question no.1322, from Minister of Agriculture, answered on 13 August 2013 - Hike in Maize Prices.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=143682>.
- Parliamentary Question Hour. 2013. Ministry of Agriculture, Lok Sabha, Unstarred question no. 2332 - Hybrid Cotton Seeds. Answered on 12 March 2013.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=136846>.
- Parliamentary Question Hour, 2012. 2012. Parliamentary Question. Lok Sabha Unstarred question no. 241 from Minister of Agriculture, answered on 28 August 2012 - Demand of Hybrid Seeds.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=126964>.
- Parliamentary Question-Rajya Sabha. 2002. "Rajya Sabha Unstarred Question No. 296, Dated 21.11.2002." IndiaStat.com.
- Parliamentary Question-Rajya Sabha Unstarred Question no. 1806. 2007. Rajya Sabha Unstarred Question No. 1806: dated 29 AUGust 2007.
- Parliamentary Question, 2011. Parliamentary Question. Lok Sabha Unstarred question no. 1961, from Minister of Agriculture, answered on 8 March 2011.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=103842>.
- Parliamentary Question, 2012. Parliamentary Question. Lok Sabha Unstarred question no. 1839 from Minister of Agriculture, answered on 4 December 2012.
<http://164.100.47.132/LssNew/psearch/QResult15.aspx?qref=131042>.
- Parsai, G. 2005. "Indian Farm Research Sector Opened to U.S. Companies." *The Hindu*, November 13.
<http://www.hindu.com/2005/11/13/stories/2005111304641000.htm>.
- — —. 2007. "Food Retail Chains Prefer Linkages with Big Farmers." *The Hindu*, May 7.
- Patel, R. 2007. *Stuffed and Starved: The Hidden Battlefor the World Food System*. Harper Perennial.
- — —. 2013. "The Long Green Revolution." *Journal of Peasant Studies* 40 (1): 1–63.
- Patel, Raj. 2009. "Food Sovereignty." *Journal of Peasant Studies* 36 (3): 663–706.
- Patkar, M., and D. Harvey. 2011. "Land-Grab, Law and Capitalism in India." *The Centre for Place, Culture and Politics (CUNY); Association for India's Development - New York Chapter Sanhati, South Asia Solidarity Initiative*, April. http://www.youtube.com/watch?v=P_Ia93DURSY.
- Patnaik, P. 1996. "Trade as a Mechanism of Economic Retrogression." *Journal of Peasant Studies* 24 (1-2): 211–25.
- — —. 2002. "Globalization of Capital and Terms of Trade Movements." In *Agrarian Studies: Essays on Agrarian Relations in Less-Developed Countries. Proceedings of the International Conference on' Agrarian Relations and Rural Development in Less-Developed Countries'*, 94–110.
- Patnaik, U. 1991. "Food Availability and Famine: A Longer View." *Journal of Peasant Studies* 19 (1): 1–25.
- — —. 1995. "On Capitalism and Agrestic Unfreedom." *International Review of Social History* 40 (1): 77–92.
- — —. 1997a. "The Political Economy of State Intervention in Food Economy (vol 32, Pg 1110, 1997)." *Economic & Political Weekly* 32 (25): 1434.
- — —. 1999a. "Export-Oriented Agriculture and Food Security in Developing Countries in India." In *The Long Transition: Essays on Political Economy*, 351–416. Tulika.
- Patnaik, U. 1972. "On the Mode of Production in Indian Agriculture: A Reply." *Economic and Political Weekly* 7 (40): 145–51.

- — —. 1986. "The Agrarian Question and Development of Capitalism in India." *Economic and Political Weekly*, 781–93.
- — —. 1997b. "India's Agricultural Development in the Light of Historical Experience." In *The State, Development Planning and Liberalisation in India*, 172–97. Delhi: Oxford University Press.
- — —. 1999b. *The Long Transition: Essays on Political Economy*. Tulika (New Delhi, India).
- — —. 2002. "Deflation and Deja vu: Indian Agriculture in the World Economy." In *Agrarian Studies: Essays on Agrarian Relations in Less-Developed Countries. Proceedings of the International Conference on Agrarian Relations and Rural Development in Less-Developed Countries*, 111–50. New Delhi: Tulika.
- — —. 2007a. "Agrarian Crisis in the Era of the New Imperialism and the Role of Peasant Resistance." In *The Republic of Hunger and Other Essays*, 205–32. Three Essays Collective.
- — —. 2007b. "Food Stocks and Hunger - Causes of Agrarian Distress." In *The Republic of Hunger and Other Essays*, 95–114. Three Essays Collective.
- — —. 2007c. *The Republic of Hunger and Other Essays*. Three Essays Collective.
- — —. 2007d. "Theorizing Food Security and Poverty in the Era of Economic Reforms." In *The Republic of Hunger and Other Essays*, 151–98. New Delhi: Three Essays Collective.
- Patnaik, U., and S. Moyo. 2011. *The Agrarian Question in the Neoliberal Era: Primitive Accumulation and the Peasantry*. Pambazuka Press.
- Pattanaik, B., K. Singh, S. Singh, and M. Singh. 2008. *Contract Farming System in Punjab: An Appraisal*. Centre for Research in Rural and Industrial Development (CRID): Centre for Research in Rural and Industrial Development (CRID).
- Peck, J., and A. Tickell. 1995. "The Social Regulation of Uneven Development." *Environment and Planning A* 27: 15–40.
- Peet, R., and E. Hartwick. 2009. *Theories of Development, Second Edition: Contentions, Arguments, Alternatives*. Guilford Press.
- Peluso, N., and P. Vandergeest. 2011. "Political Ecologies of War and Forests: Counterinsurgencies and the Making of National Natures." *Annals of the Association of American Geographers* 101 (3): 587–608.
- Petras, J. 2002. "Review Article - A Rose by Any Other Name? The Fragrance of Imperialism." *Journal of Peasant Studies* 29 (2): 135–60.
- Petras, J., and H. Veltmeyer. 2001. "Are Latin American Peasant Movements Still a Force for Change? Some New Paradigms Revisited." *Journal of Peasant Studies* 28 (2): 83–118.
- — —. 2002. "The Peasantry and the State in Latin America: A Troubled Past, an Uncertain Future." *Journal of Peasant Studies* 29 (3-4): 41–82.
- — —. 2003. "Whither Lula's Brazil? Neoliberalism and 'Third Way' Ideology." *Journal of Peasant Studies* 31 (1): 1–44.
- — —. 2007. "The 'development State' in Latin America: Whose Development, Whose State?" *Journal of Peasant Studies* 34 (3-4): 371–407.
- Pickles, J. "Development 'Deferred': Poststructuralism, Postdevelopment, and the Defense of Critical Model." *Economic Geography* 77: 383–88.
- Planning Commission, 2011. 2011. *Report of the Working Group on Agricultural Marketing Infrastructure, Secondary Agriculture and Policy Required for Internal and External Trade for the XII Five Year Plan 2012-2017*. Agriculture Division, Planning Commission, Government of India.
- Planning Commission, GoI. 2006a. *Report of the Working Group on Land Relations for Formulation of 11th Five Year Plan*. Working Group Report. Delhi: Planning Commission, GoI.
- — —. 2006b. *Working Group Report of the Sub-Committee of National Development Council (NDC) on Agriculture and Related Issues on Agricultural Marketing Reforms Contract Farming and Agro-Processing*. Planning Commission, GoI.
- Planning Commission, GOI. 2001. *Punjab Development Report*. Chandigarh, Punjab.
http://planningcommission.nic.in/plans/stateplan/index.php?state=sp_sdrpunb.htm.
- Planning Commission, State Plan Division, Government of India. 2005. *Himachal Pradesh Development Report*.
- PNS. 2012. "Punjab Set to Frame Agriculture Policy." *The Pioneer*, April 4.

- Poon, J., and H. Yeung. 2009. "SJTG Special Forum - Continental Drift? Development Issues in Asia, Latin America and Africa." *Singapore Journal of Tropical Geography* 30 (1): 3–6.
- Porter, G., and K. Phillips Howard. 1997. "Contract Farming in South Africa - A Case Study from KwaZulu-Natal." *Geography* 82 (354): 38–44.
- Post, C. "Comments on the Brenner–Wood Exchange on the Low Countries." *Journal of Agrarian Change* 2 (1): 88–95.
- Praestholm, S., and S. P. Kristensen. 2007. "Farmers as Initiators and Farms as Attractors for Non-Agricultural Economic Activities in Peri-Urban Areas in Denmark." *Geografisk Tidsskrift-Danish Journal of Geography* 107 (2): 13–27.
- Prasad, P. 2009. "What Is Dhada-Dhadi System?" *LinkedIn: Agribusiness and Retail*.
- Prashant, S. 2012. "Uttarakhand to Introduce Contract Farming." *Business Standard*, August 29. <http://www.business-standard.com/india/news/uttarakhand-to-introduce-contract-farming/484704/>.
- Pratt, J. 2009. "Incorporation and Resistance: Analytical Issues in the Conventionalization Debate and Alternative Food Chains." *Journal of Agrarian Change* 9 (2): 155–74.
- Preet, J. 2006. "Agrarian Crisis in Punjab." *Countercurrents.org*. <http://www.countercurrents.org/ind-preet310306.htm>.
- Press Information Bureau). 2007. *National Policy for Farmers, 2007*. <http://pib.nic.in/newsite/erelease.aspx?relid=33200>.
- Press Release. 2011. "Encourage Contract Farming by Corporates to Improve Productivity: ASSOCHAM", April 25. <http://www.assochem.org/prels/shownews-archive.php?id=2864>.
- — —. 2013. "New Holland Celebrates Customer Day to Reiterate Commitment to Punjab", June 21. <http://newhollandindia.co.in/pdf/English%20Final%20-%20New%20Holland%20Celebrates%20Customer%20Day%20to%20Reiterate%20Commitment%20to%20Punjab.pdf>.
- Pritchard, Bill, and John Connell. 2011. "Contract Farming and the Remaking of Agrarian Landscapes: Insights from South India's Chilli Belt." *Singapore Journal of Tropical Geography* 32 (2): 236–52. doi:10.1111/j.1467-9493.2011.00424.x.
- PTI. 2013a. "India Can Achieve 4 per Cent Agricultural Growth in 2012-17: Pranab." *Economic Times*. http://articles.economictimes.indiatimes.com/2013-01-15/news/36353051_1_agriculture-sector-12th-plan-period-farm-sector.
- — —. 27 November, 2013b. "Peace Clause in WTO Talks Not in India's Interest: Jaitley." *The New Indian Express*. <http://m.newindianexpress.com/nation/230080>.
- — —. 2007a. "'Push Agriculture Marketing.'" *Hindustan Times*, July 2.
- — —. 2007b. "ITC Takes over Australian Agri-Biotech Co." *The Economic Times*. http://articles.economictimes.indiatimes.com/2007-08-17/news/27670532_1_technico-pty-potato-chips-seed-potato.
- — —. 2010a. "FICCI Demands Tax Concessions for Food Processing Sector." *India Today*. <http://indiatoday.intoday.in/story/FICCI+demands+tax+concessions+for+food+processing+sector/1/83315.html>.
- — —. 2010b. "Food Processing Minister Pitches for Contract Farming." *Business Standard*, August 27. <http://www.business-standard.com/india/news/food-processing-minister-pitches-for-contract-farming/106823/on>.
- — —. 2011. "Govt Plans 50 New Mega Food Parks in 12th Plan." *Business Standard*, July 24. <http://www.business-standard.com/india/news/govt-plans-50-new-mega-food-parks-in-12th-plan/142105/on>.
- — —. 2012a. "PepsiCo Eyes 30k Farmers under Collaborative Farming by 2013." *The Economic Times*. http://articles.economictimes.indiatimes.com/2012-02-26/news/31101629_1_pepsico-india-farmers-uncle-chips.
- — —. 2012b. "As FDI Debate Rages On, PepsiCo Says It Will Double Potato Procurement in India in 5 Years", December 5.

- — —. 2012c. "FDI in Retail Will Benefit Consumers, Farmers, Says PM Manmohan Singh." *The Economic Times*, December 8. http://articles.economictimes.indiatimes.com/2012-12-08/news/35689183_1_crop-diversification-fdi-punjab-agricultural-university.
- Punjab Newslines Network. 2012. "Badal Seeks Five-Year Plan to Boost Crop Diversification in Punjab." *Punjab Newslines*, September 19. http://www.punjabnewslines.com/news/Badal-seeks-five_year-plan-to-boost-crop-diversification-in-Punjab.html.
- Punjabi, M. 2008. "Supply Chain for Exports of Dehydrated Onions: Case Study of Jain Irrigation Systems in India." *Food and Agricultural Organisation of the United Nations*, February.
- Pushpendra. 2000. "Liberalisation and Agrarian Reforms: Some Recent Controversies." In *Land Reforms in India: An Unfinished Agenda - Volume 5*, 5:45–63. Land Reforms in India. Sage Publications India Pvt Ltd.
- Pyakuryal, K. 2000. *India: New Agriculture Policy*. PAI/October. Poverty Alleviation Initiatives. Rural Development Section Population and Rural and Urban Development Division (PRUDD) ESCAP, United Nations Building.
- Radcliffe, S A. 2004. "Geography of Development: Development, Civil Society and Inequality - Social Capital Is (almost) Dead." In *Progress in Human Geography*, 517–27.
- — —. 2005. "Development and Geography: Towards a Postcolonial Development Geography." *Progress in Human Geography*, 291–98.
- Rajalakshmi, T.K. 2013. "Biotechnology Bill - Missing the Purpose." *Frontline*, August 9. <http://www.frontline.in/science-and-technology/missing-the-purpose/article4935100.ece>.
- Ramachandran, V., V. Rawal, and M. Swaminathan. 2010. *Socio-Economic Surveys of Three Villages in Andhra Pradesh: A Study of Agrarian Relations*. Tulika Books and Foundation for Agrarian Studies.
- Ramachandran, V.K., and M. S Swaminathan. 2005. *Financial Liberalization and Rural Credit in India*. Vol. 2. Agrarian Studies. New Delhi: Tulika Books.
- Ramakumar, R. 2006. "Public Action, Agrarian Change and the Standard of Living of Agricultural Workers: A Study of a Village in Kerala." *Journal of Agrarian Change* 6 (3): 306–45.
- Ramakumar, R., and P. Chavan. 2007. "Revival of Agricultural Credit in the 2000s: An Explanation." *Economic and Political Weekly* 42 (52): 57.
- Ramamurthy, P. 2000. "The Cotton Commodity Chain, Women, Work and Agency in India and Japan: The Case for Feminist Agro-Food Systems Research." *World Development* 28 (3): 551–78.
- — —. 2011. "Rearticulating Caste: The Global Cottonseed Commodity Chain and the Paradox of Smallholder Capitalism in South India." *Environment and Planning A* 43 (5): 1035–56.
- Randhawa, M.S. *Agricultural Universities in India: Progress and Problems*. Washington: The Agricultural Division of the National Association of State Universities and Land Grant Colleges.
- Ranjit Sau. 1979. "On the Laws of Concentration and Centralization of Capital." *Social Scientist* 8 (3): 3–14.
- Rao, C. 2003. "Reform Agenda for Agriculture." *Economic and Political Weekly*, February, 615–20.
- Rao, K.S. Chalapati, and M.R. Murthy. 2006. *Towards Understanding the State-Wise Distribution of Foreign Direct Investments in the Post-Liberalisation Period*. Working Paper No 2006/01. The Institute for Studies in Industrial Development.
- Rao, M. 1997. "Agricultural Development under State Planning." In *The State, Development Planning and Liberalisation in India*, 127–71. Delhi: Oxford University Press.
- — —. 1999. "Agrarian Power and Unfree Labour." *Journal of Peasant Studies* 26 (2-3): 242–62.
- Rao, V. 1996. "Agricultural Development with a Human Face." *Economic and Political Weekly* 31(26) (June): A50 – A 62.
- Rathore, D. 2004. "Policy Initiatives by Reserve Bank of India to Facilitate Financing of Contract Farming and Expectations". presented at the Facilitating bank finance for contract farming, April 12.
- Rawal, V. 2006. "The Labour Process in Rural Haryana (India): A Field-Report from Two Villages." *Journal of Agrarian Change* 6 (4): 538–83.
- Rawat, V. 2004. "Reforms in Agriculture." *Agriculture Today*, October.
- Raynolds, L. T. 2002. "Wages for Wives: Renegotiating Gender and Production Relations in Contract Farming in the Dominican Republic." *World Development* 30 (5): 783–98.

- Reddy, N. 1998. "Reforms in Andhra Pradesh." *Alternative Economic Survey 1998-2000*, 154–58.
- Reed, D., and A. Mukherjee-Reed. 2012. "From Non-State Regulation to Governance? Shifting the Site of Contestation." In *Business Regulation and Non-State Actors: Whose Standards? Whose Development?* Routledge.
- Reporter. 2006. "CMi Expands Certification Services across Supply Chain." *EuroFruit*, January.
- — —. 2007. "Certification Bodies Adjust to New Market Realities." *Trade Spain*.
- — —. 2009a. "David Maddox to Lead Capespan's India Project." *Asia Fruit*, April.
- — —. 2009b. "Biometric Card for Fruits and Vegetable Vendors." *Agri Business and Food Industry*, May.
- Reserve Bank of India. 2009. *Macroeconomic and Monetary Developments: Third Quarter Review 2008-2009*. Mumbai: Reserve Bank of India.
- — —. 2010. *Macroeconomic and Monetary Developments: Second Quarter Review 2010-2011*. Mumbai: Reserve Bank of India.
- Reusse, E. 1987. "Liberalization and Agricultural Marketing - Recent Causes and Effects in Third-World Economies." *Food Policy* 12 (4): 299–317.
- Richards, A. 2001. *Development and Modes of Production in Marxian Economics: Harwood Fundamentals of Applied Economics*. Routledge.
- Rizzo, M. 2009. "The Struggle for Alternatives: NGOs' Responses to the World Development Report 2008." *Journal of Agrarian Change* 9 (2): 277–90.
- Robinson, W., and J. Harris. 2000. "Towards a Global Ruling Class? Globalization and the Transnational Capitalist Class." *Science & Society* 64 (1): 11–54.
- Roma. 2008. "Land Reforms Policy: A Shift in Paradigm." In *Contract Farming and Tenancy Reforms – Entangled without Tether*, 33–50. Mussoorie: Concept Publishing Company.
- Roosa, J. 2001. "Passive Revolution Meets Peasant Revolution: Indian Nationalism and the Telangana Revolt." *Journal of Peasant Studies* 28 (4): 57–94.
- Rothgeb, J. 1995. "Investment Penetration, Agrarian Change, and Political Conflict in Developing Countries." *Studies in Comparative International Development* 30 (4): 46–62.
- Roy, A. 1999. "The Greater Common Good." <http://www.narmada.org/gcg/gcg.html>.
- — —. 2011. "Anti-Land Acquisition Stirs in Nandigram, Singur Help Mamata Win." *India Today*. <http://indiatoday.intoday.in/story/anti-land-acquisition-stirs-in-nandigram-singur-help-mamata-banerjee-win/1/138118.html>.
- Ruben, R., and E. Masset. "Land Markets, Risk and Distress Sales in Nicaragua: The Impact of Income Shocks on Rural Differentiation." *Journal of Agrarian Change* 3 (4): 481–99.
- Rural Development Institute, World Bank. 2009. "Learning From Old and New Approaches to Land Reform in India". presented at the Land Redistribution in Africa: Towards a common vision, Rural Development Institute, World Bank.
- Russell, A. 2008. "GMOs and Their Contexts: A Comparison of Potential and Actual Performance of GM Crops in a Local Agricultural Setting." *Geoforum* 39 (1): 213–22.
- Sahu, G., S Madheswaran, and D Rajasekhar. 2004. "Credit Constraints and Distress Sales in Rural India: Evidence from Kalahandi District, Orissa." *Journal of Peasant Studies* 31 (2): 210–41.
- Saikia, Arupjyoti. 2008. "Forest Land and Peasant Struggles in Assam, 2002–2007." *Journal of Peasant Studies* 35 (1): 39–59.
- Sainath, P. 2008. "One Farmer's Suicide Every 30 Minutes." *Z Communications*. <http://www.zcommunications.org/one-farmer-s-suicide-every-30-minutes-by-p-sainath>.
- — —. 2009. "Ways of Seeing." *Seminar*, March.
- Saith, A. "From Village Artisans to Industrial Clusters: Agendas and Policy Gaps in Indian Rural Industrialization." *Journal of Agrarian Change* 1 (1): 81–123.
- Sanderson, S. 1992. "Mexican Public-Sector Food Policy Under Agricultural Trade Liberalization." *Policy Studies Journal* 20 (3): 431–46.
- Sarris, P. 2009. "Introduction: Aristocrats, Peasants and the Transformation of Rural Society, c.400–800." *Journal of Agrarian Change* 9 (1): 3–22.

- Sathe, A. 2009. *Sustainable Agribusiness: Opportunities and Issues*. New Delhi.
- Satish, P. 2004. "Policy Initiatives by NABARD in Contract Farming". presented at the Facilitating bank finance for contract farming, April 12.
- Satyasai, and Vishwanathan. 1997. *Commercialisation and Diversification of Indian Agriculture*. Occasional Paper no. 5. National Bank for Agriculture and Rural Development.
- Sauer, S., and Sergio Pereira Leite. 2012. "Agrarian Structure, Foreign Investment in Land, and Land Prices in Brazil." *Journal of Peasant Studies* 39 (3-4): 873–98.
- Sawers, L. 2005. "Nontraditional or New Traditional Exports: Ecuador's Flower Boom." *Latin American Research Review* 40 (3): 40–67. doi:10.1353/lar.2005.0063.
- Saxena, K.B. 2011. *Land Reforms: Unfinished Agenda or Reversal of Policy*. India Social Development Report. New Delhi: Council for Social Development.
- Sayer, A. 1992. *Method in Social Science: A Realist Approach*. Second Edition. London and New York: Routledge.
- Schipmann, Christin, and Martin Qaim. 2011. "Supply Chain Differentiation, Contract Agriculture, and Farmers' Marketing Preferences: The Case of Sweet Pepper in Thailand." *Food Policy* 36 (5): 667–77. doi:10.1016/j.foodpol.2011.07.004.
- Schnell, S. M. 2007. "Food with a Farmer's Face: Community-Supported Agriculture in the United States." *Geographical Review* 97 (4): 550–64.
- Schnurr, Matthew A. 2013. "Biotechnology and Bio-Hegemony in Uganda: Unraveling the Social Relations Underpinning the Promotion of Genetically Modified Crops into New African Markets." *Journal of Peasant Studies* 40 (4): 639–58.
- Schumacher, S. K., and T. L. Marsh. 2002. "Economies of Scale in the Greenhouse Floriculture Industry." *Journal of Agricultural and Resource Economics* 27 (2): 578–578.
- Schuurman, F. 2000. "Paradigms Lost, Paradigms Regained? Development Studies in the Twenty-First Century." *Third World Quarterly* 21: 7–20.
- Scoones, I. 2008. "Mobilizing against GM Crops in India, South Africa and Brazil." *Journal of Agrarian Change* 8 (2-3): 315–44.
- Scoones, I., R. Hall, S. Borras, B. White, and W. Wolford. 2013. "The Politics of Evidence: Methodologies for Understanding the Global Land Rush." *Journal of Peasant Studies* 40 (3): 469–83.
- Scoones, I., N. Marongwe, B. Mavedzenge, F. Murimbarimba, J. Mahenehene, and C. Sukume. "Livelihoods after Land Reform in Zimbabwe: Understanding Processes of Rural Differentiation." *Journal of Agrarian Change* 12 (4): 503–27.
- Scott, Allen J. 2009. "World Development Report 2009: Reshaping Economic Geography." *Journal of Economic Geography* 9 (4): 583–86. doi:10.1093/jeg/lbp019.
- Selwyn, B. 2010. "Globalized Horticulture: The Formation and Global Integration of Export Grape Production in North East Brazil." *Journal of Agrarian Change* 10 (4): 537–63.
- Selwyn, Ben. 2009. "Labour Flexibility in Export Horticulture: A Case Study of Northeast Brazilian Grape Production." *Journal of Peasant Studies* 36 (4): 761–82.
- Serageldin, I. 1999. "Sustainable Agriculture for a Food Secure Third World." *Social Research* 66 (1): 105–15.
- Setboonsarng, S. 2008. *Global Partnership in Poverty Reduction: Contract Farming and Regional Cooperation*. ADB Institute Discussion Papers. <https://opus.zbw-kiel.de/dspace/handle/10419/53517>.
- Shah, Esha. 2012. "'A Life Wasted Making Dust': Affective Histories of Dearth, Death, Debt and Farmers' Suicides in India." *Journal of Peasant Studies* 39 (5): 1159–79.
- Shand, H. 2012. *The Big Six: A Profile of Corporate Power in Seeds, Agrochemicals and Biotech*. The Heritage Farm Companion. www.seedsavers.org/site/pdf/HeritageFarmCompanion_BigSix.pdf.
- Shanin, Teodor. 2009. "Chayanov's Treble Death and Tenuous Resurrection: An Essay about Understanding, about Roots of Plausibility and about Rural Russia." *Journal of Peasant Studies* 36 (1): 83–101.
- Shanwad, U.K., V.C. Patil, and H.H. Gowda. "Precision Farming: Dreams and Realities for Indian Agriculture." In <http://www.geospatialworld.net/images/pdf/mi04115.pdf>.
- Sharma, A. 2005. "OBC Moots Contract Farming in Punjab." *Business Standard*, October 3.

- Sharma, D. 2006. "Indian Villages For Sale." *Countercurrents.org*. <http://www.countercurrents.org/gl-sharma130206.htm>.
- — —. 2009. "Reviving Agriculture." *Seminar*, March.
- — —. 2011. "India Keen to Dismantle Its Vast Agricultural Mandi Network Putting Food Security at Stake." Web Blog. *Ground Reality*. <http://devinder-sharma.blogspot.com/2011/01/india-keen-to-dismantle-its-vast.html>.
- Sharma, V. P. 2007. *India's Agrarian Crisis and Smallholder Producers' Participation in New Farm Supply Chain Initiatives: A Case Study of Contract Farming*. W.P.No.2007-08-01. Indian institute of management (IIM). <https://www.iimahd.ernet.in/assets/snippets/workingpaperpdf/2007-08-01Sharma.pdf>.
- Shetty, S. L. 2006. "Policy Responses to the Failure of Formal Banking Institutions to Expand Credit Delivery for Agriculture and Non-Farm Informal Sectors: The Ground Reality and Tasks Ahead." In Vol. 14. New Delhi: ICRIER.
- Shiva, V. 1991. "The Green Revolution in the Punjab." *The Ecologist* 21 (2).
- — —. 1997. *The Violence of the Green Revolution: Third World Agriculture, Ecology, and Politics*. Other India Press.
- — —. 2007a. *Cargill and Th Corporate Hijack of India's Food and Agriculture*. New Delhi: Navdanya/RFSTE.
- — —. 2007b. *Manifestos on the Future of Food & Seed*. South End Press.
- — —. 2011. "India's Food Security Emergency." *Aljazeera*, July 12. <http://english.aljazeera.net/indepth/opinion/2011/07/20117810358528978.html>.
- — —. 2012. "The Seed Emergency: The Threat to Food and Democracy." *Aljazeera*, February 6. <http://www.aljazeera.com/indepth/opinion/2012/02/201224152439941847.html>.
- Shrestha, Nanda R. 1997. "On 'What Causes Poverty? A Postmodern View': A Postmodern View or Denial of Historical Integrity? The Poverty of Yapa's View of Poverty." *Annals of the Association of American Geographers* 87 (4): 709–16.
- Shrimali, R. 2008. "'Book Reviews' - The Global Food Economy: The Battle for the Future of Farming." *Journal of Peasant Studies* 35 (1): 156–76.
- — —. 2009. "'Book Reviews' - Rural Development in Punjab: A Success Story Going Astray." *Indian Economic Review* Xxxxiv (2): 299–302.
- Sidhu, A., and I. Jaijee. 2011. *Debt and Death in Rural India: The Punjab Story*. Sage Publications India Pvt Ltd.
- Sidhu, H. S. 2002. "Crisis in Agrarian Economy in Punjab: Some Urgent Steps." *Economic and Political Weekly*, 3132–38.
- — —. 2005. "Production Conditions in Contemporary Punjab Agriculture." *JPS* 12 (2): 198.
- Sidhu, R.S., S. Singh, and A.S. Bhullar. 2011. "Farmers' Suicides in Punjab: Census Survey of the Two Most Affected Districts." *Economic And Political Weekly* XLVI (26&27): 131–37.
- Sikor, Thomas. 2012. "Tree Plantations, Politics of Possession and the Absence of Land Grabs in Vietnam." *Journal of Peasant Studies* 39 (3-4): 1077–1101.
- Sikor, Thomas, and Pham Thi Tuong Vi. "The Dynamics of Commoditization in a Vietnamese Uplands Village, 1980–2000." *Journal of Agrarian Change* 5 (3): 405–28.
- Silvey, R., and V. Lawson. 1999. "Placing the Migrant." *Annals of the Association of American Geographers* 89 (1): 121–32.
- Simmons, P., P. Winters, and I. Patrick. 2005. "An Analysis of Contract Farming in East Java, Bali, and Lombok, Indonesia." *Agricultural Economics* 33 (3): 513–25.
- Singh, A., and H. Tabatabai. 1990. "Facing the Crisis - Third-World Agriculture in the 1980s." *International Labour Review* 129 (4): 479–500.
- — —. 1992. "Agriculture and Economic-Development in the 1990s - a New Analytical and Policy Agenda." *International Labour Review* 131 (4-5): 405–30.
- Singh, Hira. 2002. "Caste, Class and Peasant Agency in Subaltern Studies Discourse: Revisionist Historiography, Elite Ideology." *Journal of Peasant Studies* 30 (1): 91–134.
- — —. 2008. "The Real World of Caste in India." *Journal of Peasant Studies* 35 (1): 119–32.

- Singh, Iqbal. 1989. "Reverse Tenancy in Punjab Agriculture: Impact of Technological Change." *Economic and Political Weekly* 24 (25): A86–A92.
- Singh, J.P. 2006. "Changing Agrarian Relationships in Rural India." *Indian Journal of Agriculture Economics* 61 (1).
- Singh, K., S. Singh, and H. Kingra. 2007. *Status of Farmers Who Left Farming in Punjab*. Department of Economics, Punjab Agricultural University, Ludhiana: The Punjab State Farmers Commission, Government of Punjab.
- Singh, L. 2004. "Deceleration of Industrial Growth and Rural Industrialisation Strategy for Indian Punjab." *Journal of Punjab Studies* 12 (2).
- — —. 2005. "Decentralisation of Industrial Growth and Rural Industrialisation Strategy for Indian Punjab." *Journal of Punjab Studies*, Special Number on Agriculture and Rural Economy of Indian Punjab, 12 (2): 271–84.
- Singh, M. 2010. "PM Addresses Chief Minister's Conference on Prices of Essential Commodities."
- Singh, Naresh. 2009. "Fighting Rural Poverty, Inequality and Low Productivity through Legal Empowerment of the Poor." *Journal of Peasant Studies* 36 (4): 871–92.
- Singh, P. 2008. *Federalism, Nationalism and Development: India and the Punjab Economy*. Routledge. http://books.google.ca/books?hl=en&lr=&id=shgGCwdFSKsC&oi=fnd&pg=PP1&dq=federalism+nationalism+and+development+pritam+singh&ots=_-RO7crau4&sig=bLlLojSf9xy8IiU4qUI9yBguPZTU.
- Singh, R.P. 2009. "What Is Dhada-Dhadi System?" *LinkedIn: Agribusiness and Retail*.
- Singh, S. 2002a. "Multi-National Corporations and Agricultural Development: A Study of Contract Farming in the Indian Punjab." *Journal of International Development* 14 (2): 181–94.
- — —. 2002b. "Contracting out Solutions: Political Economy of Contract Farming in the Indian Punjab." *World Development* 30 (9): 1621–38.
- — —. 2005. *Contract Farming for Agricultural Development: Review of Theory and Practice with Special Reference to India*. CENTAD- Centre for Trade and Development. <http://ideas.repec.org/p/ess/wpaper/id246.html>.
- — —. 2006. *Corporate Farming in India: Is It Must for Agricultural Development?* W.P. No.2006-11-06. Indian Institute of Management, Ahmedabad.
- — —. 2008. "Leveraging Contract Farming for Improving Supply Chain Efficiency in India: Some Innovative and Successful Models." In *Proceedings of the Second International Symposium on Improving the Performance of Supply Chains in the Transitional Economies (2008)*, Issue: 794:317–23. International Society Horticultural Science. <http://www.mendeley.com/research/leveraging-contract-farming-improving-supply-chain-efficiency-india-some-innovative-successful-models/>.
- — —. 2012. "Institutional and Policy Aspects of Punjab Agriculture: A Smallholder Perspective." *Economic And Political Weekly*, Review of Rural Affairs, XLVII (4): 51–57.
- — —. 2013. "It Excludes Farmers." *Frontline*, July 26. <http://www.frontline.in/cover-story/it-excludes-farmers/article4888083.ece>.
- Singh, S., and K. Gautam. 2007. *Agribusiness in South Asia: A Fact Sheet*. Oxfam GB.
- Singh, S., and M. S. Toor. 2005. "Agrarian Crisis with Special Reference to Indebtedness among Punjab Farmers." *Indian Journal of Agriculture Economics* 60 (3): 335.
- Singh, S.P. 2002. "Agriculture." *Alternative Economic Survey 2002-2003*, 40–53.
- Singhi, L.C., and S. Arora. 2008. "Land Tenancy and Contract Farming: A Policy Dilemma." In *Contract Farming and Tenancy Reforms: Entangled without Tether*, 79–86. Lal Bahadur Shastri National Academy of Administration, Mussoorie: Centre for Rural Studies.
- Sinha, B.K., and Pushpendra. 2000. *Land Reforms in India: An Unfinished Agenda - Volume 5*. Vol. 5. Land Reforms in India. New Delhi: Sage Publications India Pvt Ltd.
- Sitko, N. 2013. "'My Hunger Has Brought Business': 'efficiency' and the de-Moralizing Logic of Maize Distribution in an Era of Market Liberalization." *Journal of Peasant Studies* 40 (2): 379–96.
- Sivakumar. 2001. "The Unfinished Narodnik Agenda: Chayanov, Marxism, and Marginalism Revisited." *Journal of Peasant Studies* 29 (1): 31–60.

- Sivakumar, S. 2005. "Investment in Agriculture: The Right Notes." *The Financial Express*, March 1.
<http://www.financialexpress.com/news/investment-in-agriculture-the-right-notes/127328/0>.
- Skarstein, Rune. "Economic Liberalization and Smallholder Productivity in Tanzania. From Promised Success to Real Failure, 1985–1998." *Journal of Agrarian Change* 5 (3): 334–62.
- Sklair, L. 1997. "Social Movements for Global Capitalism: The Transnational Capitalist Class in Action." *Review of International Political Economy* 4 (3): 514–38.
- — —. 2002. "The Transnational Capitalist Class and Global Politics: Deconstructing the Corporate-State Connection." *International Political Science Review* 23 (2): 159–74.
- Slater, D. 1993. "The Political Meaning of Development: In Search of New Horizons. Beyond the Impasse : New Directions in Development Theory." In *London ; Atlantic*, 93–112.
- Smith, Tony. 1997. "The Neoclassical and Marxian Theories of Technology: A Comparison and Critical Assessment." *Historical Materialism* 1 (1): 113–33. doi:10.1163/156920697100414122.
- So, Alvin Y. 2007. "Peasant Conflict and the Local Predatory State in the Chinese Countryside." *The Journal of Peasant Studies* 34 (3-4): 560–81.
- Sood, R. 2003. "Potato Growers Face Hard Times." *The Tribune*, May 23, Online Edition edition.
<http://www.tribuneindia.com/2003/20030523/himachal.htm#1>.
- Spoor, Max. "Policy Regimes and Performance of the Agricultural Sector in Latin America and the Caribbean During the Last Three Decades." *Journal of Agrarian Change* 2 (3): 381–400.
- Srinivas, N.R. 2003. "Kisan Supermarkets Are Here - Get Harvestors, Sickles, Seeds and Pesticides over the Counter." *Economic Times*, May 22.
- Srivastava, Ravi S. 1999. "Rural Labour in Uttar Pradesh: Emerging Features of Subsistence, Contradiction and Resistance." *Journal of Peasant Studies* 26 (2-3): 263–315.
- Steiner, B. E. 2007. "Negotiated Transfer Pricing: Theory and Implications for Value Chains in Agribusiness." *Agribusiness* 23 (2): 279–92.
- Stokes, D. 2005. "The Heart of Empire? Theorising US Empire in an Era of Transnational Capitalism." *Third World Quarterly* 26 (2): 217–36.
- Storper, M. 2011. "Why Do Regions Develop and Change? The Challenge for Geography and Economics." *Journal of Economic Geography* 11 (2): 333–46.
- Storper, Michael. 2010. "Why Does a City Grow? Specialisation, Human Capital or Institutions?" *Urban Studies* 47 (10): 2027–50. doi:10.1177/0042098009359957.
- Storper, Michael, and Allen J. Scott. 1990. "Work Organisation and Local Labour Markets in an Era of Flexible Production." *International Labour Review* 129: 573.
- Suárez, S. 2013. "The Human Rights Framework in Contemporary Agrarian Struggles." *Journal of Peasant Studies* 40 (1): 239–90.
- Sulaiman, R.V, and Van Den Ban. 2000. *Agricultural Extensions in India-The Next Step*. Policy Brief 9. National Centre for Agricultural Economics and Policy Research (I.C.A.R).
- Sunanda, S. 2005. "Farm-Firm Linkages Through Contract Farming in India". Seminar Presentation presented at the Sustainable Contract Farming for Increased Competitiveness, Sri Lanka, July 18.
- Sutton, F.X. 1989. "Development Ideology - Its Emergence and Decline." *Daedalus* 118 (1): 35–58.
- Swaminathan, M. S. 2007. *Agriculture Cannot Wait: New Horizons in Indian Agriculture*. Academic Foundation.
- Swaminathan, M. S. 1983. "Agricultural Progress - Key to Third-World Prosperity." *Third World Quarterly* 5 (3): 553–66.
- Swan, S., S. Hadley, and B. Cichon. 2010. "Crisis Behind Closed Doors: Global Food Crisis and Local Hunger." *Journal of Agrarian Change* 10 (1): 107–18.
- Tadesse, B., and S. Krishnamoorthy. 1997. "Technical Efficiency in Paddy Farms of Tamil Nadu: An Analysis Based on Farm Size and Ecological Zone." *Agricultural Economics* 16 (3): 185–92.
- Talbot, R. 1980. "The International Fund for Agricultural Development." *Political Science Quarterly* 95 (2): 261–76.
- Tamilnadu Agriculture University. 2011. *Contract Farming*. Tamilnadu Agriculture University. Accessed July 24.

- http://www.google.ca/url?sa=t&source=web&cd=1&ved=0CBkQFjAA&url=http%3A%2F%2Fagritech.tnau.ac.in%2Fhorticulture%2Fcontract%2520farming.pdf&rct=j&q=%27contract%20farming%20policy%20India%27&ei=23ApTsS4K_KFsgLB64G3Cw&usg=AFQjCNFZ2pCw7QgOPui6EWthsAo8fg3tHw&sig2=eWaURg3HuiDSi62d0NDJMQ.
- Taylor, M. "The Antinomies of 'Financial Inclusion': Debt, Distress and the Workings of Indian Microfinance." *Journal of Agrarian Change* 12 (4): 601–10.
- Technopak Advisors Pvt. Ltd. 2006. *Taking Indian Food Products Across The Globe*. Direct to retail Report.
- Temudo, Marina Padrão, and Manuel Bivar Abrantes. "Changing Policies, Shifting Livelihoods: The Fate of Agriculture in Guinea-Bissau." *Journal of Agrarian Change* 13 (4): 571–89.
- The Wall Street Journal. 2013. "India May Allow Private Firms to Export Government Wheat." *The Wall Street Journal*, February 19.
<http://online.wsj.com/article/SB10001424127887323495104578313871688971486.html>.
- The World Bank. 2004. *India: Re-Energizing the Agricultural Sector To Sustain Growth and Reduce Poverty*. 27889-IN. The World Bank.
- Thorner, A. 1982. "Semi-Feudalism or Capitalism: Contemporary Debate on Classes and Modes of Production in India." *Economic and Political Weekly* 17, 49. 50 and 51: 1961–68, 1003–99, 2061–66.
- Thorner, D., and A. Thorner. 2005. *Land and Labour in India*. Bombay.
- Tiba, Z. "'Maize Is Life, but Rice Is Money!' A Village Case Study of the 2001/02 Famine in Malawi." *Journal of Agrarian Change* 11 (1): 3–28.
- Tilt, B. 2008. "Smallholders and the 'Household Responsibility System': Adapting to Institutional Change in Chinese Agriculture." *Human Ecology* 36 (2): 189–99.
- Toit, Andries. "Real Acts, Imagined Landscapes: Reflections on the Discourses of Land Reform in South Africa after 1994." *Journal of Agrarian Change* 13 (1): 16–22.
- Tran, Thi Thu Trang. 2013. "Food Safety and the Political Economy of Food Governance: The Case of Shrimp Farming in Nam Dinh Province, Vietnam." *Journal of Peasant Studies* 40 (4): 703–19.
- Tribune Reporter. 2003. "Now Potato Dumping-Problem of Plenty Defies a Solution." *The Tribune*, December 20, Online edition edition. <http://www.tribuneindia.com/2003/20031220/edit.htm#3>.
- Tripathi, R., M. Shahid, A. Nayak, R. Raja, B. Panda, S. Mohanty, K. Thilgham, and A. Kumar. 2012. "Precision Agriculture in India: Opportunities and Challenges." *Central Rice Research Institute*, October.
<http://www.rkmp.co.in/content/precision-agriculture-in-india-opportunities-and-challenges>.
- Tripathi, R., R. Singh, and S. Sube. 2005. "Contract Farming in Potato Production: An Alternative for Managing Risk and Uncertainty." *Agricultural Economics Research Review* 18: 47–60.
- Trivedi, D. 2008. "APEDA Finalising Guidelines on Good Agri Practices - Draft Norms Could Be Adopted Voluntarily." *Business Line*, May 7.
- Ufkes, F. M. 1993. "Trade Liberalization, Agrofood Politics and the Globalization of Agriculture." *Political Geography* 12 (3): 215–31.
- UNI-United News of India. 2005. "Chidambaram Asks Corporates to Take Agriculture to World Standards." *Business Line*, October 2.
- Vaidyanathan, A. 2003. "Keynote Address." In *Institutional Change in Indian Agriculture*. National Centre For Agricultural Economics And Policy Research.
- — —. 2004. *Task Force on Revival of Cooperative Credit Institutions*. Reserve Bank of India.
- Vandergeest, P. 2003a. "Racialization and Citizenship in Thai Forest Politics." *Society and Natural Resources* 16 (1): 19–37.
- — —. 2003b. "Land to Some Tillers: Development-Induced Displacement in Laos." *International Social Science Journal* 55 (1): 47+.
- Vandergeest, P, M Flaherty, and P Miller. 1999. "A Political Ecology of Shrimp Aquaculture in Thailand." *Rural Sociology* 64 (4): 573–96.
- — —. 2001. "Response to Jasper Goss, Mike Skladany, and Gerard Middendorf: 'Shrimp Aquaculture in Thailand: A Response to Vandergeest, Flaherty, and Miller.'" *Rural Sociology* 66 (3): 461–65.

- Vandergeest, P. 2008. "Border Landscapes: The Politics of Akha Land Use in China and Thailand." *Canadian Geographer* 52 (1): 126–27.
- Vandergeest, P., and A. Unno. 2012. "A New Extraterritoriality? Aquaculture Certification, Sovereignty, and Empire." *Political Geography* 31 (6): 358–67.
- Vandergeest, Peter. 2008. "MIEN RELATIONS: Mountain People and State Control in Thailand." *PACIFIC AFFAIRS* 81 (3): 491–92.
- Vanhaute, E. 2011. "From Famine to Food Crisis: What History Can Teach Us about Local and Global Subsistence Crises." *Journal of Peasant Studies* 38 (1): 47–65.
- Varghese, K. G., and C. Chauhan. 2011. "Free up Veggie Trade to Fix Crisis: Montek." *Hindustan Times*, January 17. <http://www.hindustantimes.com/business-news/WorldEconomy/Free-up-veggie-trade-to-fix-crisis-Montek/Article1-651595.aspx>.
- Varma, H.O. 2000. "Agriculture." *Alternative Economic Survey 2000-2001*, 61–68.
- Varshney, A. 1998. *Democracy, Development and the Countryside: Urban-Rural Struggles in India*. Cambridge University Press.
- Varshney, Ashutosh. 1989. "Ideas, Interest and Institutions in Policy Change: Transformation of India's Agricultural Strategy in the Mid-1960s." *Policy Sciences* 22 (3-4): 289–323.
- Vasdev, K. 2001. "Little Demand for Punjab Potatoes." *Ludhiana Tribune*, January 19, Online Edition edition. <http://www.tribuneindia.com/2001/20010119/ldh1.htm>.
- Vegetable and fruit Promotion Council Keralam. 2011. "Vegetable and Fruit Promotion Council Keralam." <http://www.vfpc.org/docs/TechMore.asp?sub=PPR&ID=39>.
- Vellema, S., S. Borrás Jr., and F. Lara Jr. "The Agrarian Roots of Contemporary Violent Conflict in Mindanao, Southern Philippines." *Journal of Agrarian Change* 11 (3): 298–320.
- Veltmeyer, H. 2001. "The Politics of Language: Deconstructing the Discourse of Postdevelopment." *Canadian Journal of Development Studies* 22: 597–620.
- Veltmeyer, Henry. 2009. "The World Bank on 'agriculture for Development': A Failure of Imagination or the Power of Ideology?" *Journal of Peasant Studies* 36 (2): 393–410.
- Venkateswarlu, D., and L. Da Corta. 2001. "Transformations in the Age and Gender of Unfree Workers on Hybrid Cotton Seed Farms in Andhra Pradesh." *The Journal of Peasant Studies* 28 (3): 1–36.
- Venkitaramanan, S. 2008. "World Bank's 10-Point Plan for the Food Crisis." *Business Line*, June 9. <http://www.thehindubusinessline.com/todays-paper/article1626297.ece>.
- Vergopoulos, K. 1978. "Capitalism and Peasant Productivity." *Journal of Peasant Studies* 5: 446–81.
- Visser, Oane, Natalia Mamónova, and Max Spoor. 2012. "Oligarchs, Megafarms and Land Reserves: Understanding Land Grabbing in Russia." *Journal of Peasant Studies* 39 (3-4): 899–931.
- Vyas, V.S. 2004. *Report of the Advisory Committee on Flow of Credit to Agriculture and Related Activities from the Banking System*. Mumbai: Reserve Bank of India.
- Walker, Cheryl. "Piety in the Sky? Gender Policy and Land Reform in South Africa." *Journal of Agrarian Change* 3 (1-2): 113–48.
- Walker, K. "From Covert to Overt: Everyday Peasant Politics in China and the Implications for Transnational Agrarian Movements." *Journal of Agrarian Change* 8 (2-3): 462–88.
- Walker, Kathy Le Mons. 2008. "Neoliberalism on the Ground in Rural India: Predatory Growth, Agrarian Crisis, Internal Colonization, and the Intensification of Class Struggle." *The Journal of Peasant Studies* 35 (4): 557–620.
- Wang, J., and H. Yeung. 2000. "Strategies for Global Competition: Transnational Chemical Firms and Singapore's Chemical Cluster." *Environment and Planning A* 32 (5): 847–69.
- Ward, K., and M. Jones. 1999. "Researching Local Elites: Reflexivity, 'situatedness' and Political-Temporal Contingency." *Geoforum* 30 (4): 301–12.
- Watts, M. 1988. "Review Essay: Deconstructing Determinism: Marxisms, Development Theory and a Comradely Critique of Capitalist World Development: A Critique of Radical Development Geography." *Antipode* 20: 142–68.
- . 1990. "Peasants under Contract." In *The Food Question: Profits versus People*. London: Earthscan.

- — —. 1992. "Peasants and Flexible Accumulation in the Third World: Producing under Contract." *Economic and Political Weekly*, July, 90–97.
- — —. 1993. "Development I: Power, Knowledge, Discursive Practice." *Progress in Human Geography*, 257.
- — —. 1994a. "Development II: The Privatization of Everything." *Progress in Human Geography*, 371.
- — —. 1994b. "Life under Contract: Contract Farming, Agrarian Restructuring, and Flexible Accumulation." In *Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*, 21–77. The University of Wisconsin Press.
- — —. 1996. "Development III: The Global Agrofood System and Late Twentieth-Century Development (or Kautsky Redux)." *Progress in Human Geography* 20: 230–45.
- — —. 1999. "The Political Ecology of Bananas: Contract Farming, Peasants and Agrarian Change in the Eastern Caribbean." *Development and Change* 30 (4): 877–79.
- Weatherspoon, D., J. Cacho, and R. Christy. 2001. "Linking Globalization, Economic Growth and Poverty: Impacts of Agribusiness Strategies on Sub-Saharan Africa." *American Journal of Agricultural Economics* 83 (3): 722–29.
- Wegren, S. 1998. "Russian Agrarian Reform and Rural Capitalism Reconsidered." *Journal of Peasant Studies* 26 (1): 82–111.
- — —. "The Development of Agrarian Capitalism in Post-Soviet Russia." *Journal of Agrarian Change* 11 (2): 138–63.
- Wegren, S. K. 2007. "Russian Agriculture and the WTO." *Problems of Post-Communism* 54 (4): 46–59.
- Wegren, Stephen. 2004. "From Communism to Capitalism? Russia's Agrarian Relations in the Twentieth Century and Beyond." *Journal of Peasant Studies* 31 (3-4): 363–99.
- Wegren, Stephen K. 2007. "The State and Agrarian Reform in Post-Communist Russia." *Journal of Peasant Studies* 34 (3-4): 498–526.
- Wegren, Stephen K., David J. O'Brien, and Valeri V. Patsiorkovski. 2002. "Winners and Losers in Russian Agrarian Reform." *Journal of Peasant Studies* 30 (1): 1–29.
- Weis, A. 2007. *The Global Food Economy: The Battle for the Future of Farming*. Zed Books.
- Weis, T. 2006. "The Rise, Fall and Future of the Jamaican Peasantry." *Journal of Peasant Studies* 33 (1): 61–88.
- — —. 2010. "The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture." *Journal of Agrarian Change* 10 (3): 315–41.
- — —. 2013. "The Meat of the Global Food Crisis." *Journal of Peasant Studies* 40 (1): 65–85.
- — —. "Restructuring and Redundancy: The Impacts and Illogic of Neoliberal Agricultural Reforms in Jamaica." *Journal of Agrarian Change* 4 (4): 461–91.
- Wheatley, W., and B. L. Buhr. 2005. "After the Bubble: The Survival and Ownership of Internet Marketplaces for Farmers and Agribusiness." *Journal of Agricultural and Resource Economics* 30 (3): 502–19.
- White, B. 1997. "Agroindustry and Contract Farmers in Upland West Java." *Journal of Peasant Studies* 24 (3): 100–136.
- White, B., S. Borras Jr., R. Hall, I. Scoones, and W. Wolford. 2012. "The New Enclosures: Critical Perspectives on Corporate Land Deals." *Journal of Peasant Studies* 39 (3-4): 619–47.
- White, B., and A. Dasgupta. 2010. "Agrofuels Capitalism: A View from Political Economy." *Journal of Peasant Studies* 37 (4): 593–607. doi:10.1080/03066150.2010.512449.
- Wield, D., J. Chataway, and M. Bolo. 2010. "Issues in the Political Economy of Agricultural Biotechnology." *Journal of Agrarian Change* 10 (3): 342–66.
- Wilson, K. 1999. "Patterns of Accumulation and Struggles of Rural Labour: Some Aspects of Agrarian Change in Central Bihar." *Journal of Peasant Studies* 26 (2-3): 316–54.
- Wilson, N. L. W. 2001. "Linking Globalization, Economic Growth and Poverty: Impacts of Agribusiness Strategies on Sub-Saharan Africa: Discussion." *American Journal of Agricultural Economics* 83 (3): 733–35.
- Wolford, Wendy. 2010. "Participatory Democracy by Default: Land Reform, Social Movements and the State in Brazil." *Journal of Peasant Studies* 37 (1): 91–109.

- Wolpe, H. 1972. "Capitalism and Cheap Labour Power in South Africa: From Segregation to Apartheid." *Economic and Society* 1 (4).
- Wood, Ellen Meiksins. "The Question of Market Dependence." *Journal of Agrarian Change* 2 (1): 50–87.
- Woodhouse, P. 2010. "Beyond Industrial Agriculture? Some Questions about Farm Size, Productivity and Sustainability." *Journal of Agrarian Change* 10 (3): 437–53.
- Worby, E. "A Redivided Land? New Agrarian Conflicts and Questions in Zimbabwe." *Journal of Agrarian Change* 1 (4): 475–509.
- World Bank. 2003. *India: Revitalizing Punjab's Agriculture*. 37069. Rural Development Unit, South Asia Region. The World Bank.
- . 2004a. *Resuming Punjab's Prosperity: The Opportunities and Challenges Ahead*. Poverty Reduction and Economic Management Sector Unit; South Asia Region. The World Bank.
- . 2004b. *India Re-Energizing the Agricultural Sector to Sustain Growth and Reduce Poverty*. 27889-IN. Rural development Unit, South Asia Region, World Bank.
- . 2007. *World Development Report 2008: Agriculture for Development*.
- . 2011. *Rising Global Interest in Farmland: Can It Yield Sustainable and Equitable Benefits?* Agriculture and Rural Development. The World Bank.
- Wright, Erik Olin. 1979. *Class, Crisis and the State*. Verso London. <http://orton.catie.ac.cr/cgi-bin/wxis.exe/?IsisScript=BIBA.xis&method=post&formato=2&cantidad=1&expresion=mfn=008992>.
- WTO Backgrounder. 2002. "Agriculture Negotiations: Backgrounder - Phase 1: The Peace Clause." http://www.wto.org/english/tratop_e/agric_e/negs_bkgnd13_peace_e.htm.
- Xing, L. 1998. "Capitalism and Globalisation in the Light of the Communist Manifesto." *Economic And Political Weekly* 33: 33–34.
- Yapa, L. 1993. "What Are Improved Seeds - an Epistemology of the Green-Revolution." *Economic Geography* 69 (3): 254–73.
- . 1997. "Reply: Why Discourse Matters, Materially." *Annals of the Association of American Geographers* 87 (4): 717–22.
- . 1999. "How Social Science Perpetuates Poverty and What the University Can Do About It." *Bulletin of Science, Technology & Society* 19 (6): 544–546. doi:10.1177/027046769901900611.
- Ye, Junjia. 2011. "Cosmopolitanism at Work: Labour Market Exclusion in Singapore's Financial Sector." *Journal of Ethnic and Migration Studies* 37 (5): 691–707.
- Yeung, H. 1995. "The Geography of Hong Kong Transnational Corporations in the ASEAN Region." *Area* 27 (4): 318–34.
- . 2001. "Does Economics Matter For/in Economic Geography?" *Antipode* 33 (2): 168–75.
- . 2009a. "Transnationalizing Entrepreneurship: A Critical Agenda for Economic Geography." *Progress in Human Geography* 33 (2): 210–35.
- . 2009b. "Transnational Corporations, Global Production Networks, and Urban and Regional Development: A Geographer's Perspective on Multinational Enterprises and the Global Economy." *Growth and Change* 40 (2): 197–226.
- Yeung, HWC. 2005. "Rethinking Relational Economic Geography." *Transactions of the Institute of British Geographers* 30 (1): 37–51.
- Yoon, B. 2006. "Who Is Threatening Our Dinner Table? The Power of Transnational Agribusiness." *Monthly Review-an Independent Socialist Magazine* 58 (6): 56–64.
- Zhang, Q. "The Political Economy of Contract Farming in China's Agrarian Transition." *Journal of Agrarian Change* 12 (4): 460–83.
- Zhang, X. 2003. "A Comparative Study of Projection Models on China's Food Economy." *Journal of Peasant Studies* 30 (3-4): 192–223.
- Ziggers, G. W., and J. Trienekens. 1999. "Quality Assurance in Food and Agribusiness Supply Chains: Developing Successful Partnerships." *International Journal of Production Economics* 60-1 (April): 271–79.

- Zmolek, M. 2001. "Debate - Further Thoughts on Agrarian Capitalism: A Reply to Albritton." *Journal of Peasant Studies* 29 (1): 129–54.
- — —. 2004. "Debating Agrarian Capitalism: A Rejoinder to Albritton." *Journal of Peasant Studies* 31 (2): 276–305.