Corporate Farming in India:
Is it Must for Agricultural Development?

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Abstract

Indian agriculture is under policy reforms for some time now. One of the issues it faces is that of lack of viability of smallholdings and lack of international competitiveness of its produce. In this regard, new initiatives of reorganizing the production systems are being attempted in the form of contract farming and corporate farming. At the state level, laws are being amended to facilitate the practice of contract farming and corporate farming. Where contract farming means working with small growers most of the time and, therefore, high costs for agribusinesses, the alternative of corporate farming is being seen to resolve this problem. For facilitating this, prime agricultural land and wastelands are being allowed to be bought or leased in by corporate agribusiness houses, the latter (wastelands) being given away by the state on nominal lease. This paper profiles cases of corporate farming practice and examines the rationale for allowing corporate farming in India in the context of its agriculture and rural sector. It points out that the rationale is weak and not supported by international evidence on corporate farming. It rather argues for other alternatives, like consolidation of land holdings and contract farming, for making better use of corporate resources for agricultural development.

Key-words: corporate farming, India, wastelands, land ceilings, consolidation, contract farming, agriculture

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1. Introduction

Agriculture in India still engages about 58% of the work force and contributes about a quarter of the GDP (Table 1). A very large majority of the farmers/cultivators belongs to the category of small and marginal holders. The number and proportion of such holdings have been growing over time. They constituted 68.15% of the total operational holdings in 1971-72 but their proportion increased to 80.59% in 1991-92. The area cultivated by them has grown from 24.01% of the total in 1971-72 to 34.3% in 1991-92 (Singh, 2005). The share of marginal and small holdings increased to 61.6% and 18.7% respectively by 1995/96, altogether accounting for 80.3% of all holdings (Table 2). Most of these farms are family farms characterized by use of household labour, production for consumption, stock, and sale in that order, highly diversified to reduce risk, and weak market linkage, though improving with commercialisation. These farms have socio-cultural, economic and technical dimension in their management and are quite complex and dynamic institutions in themselves (Toulmin and Gueye, 2003). On the other hand, the number of farms in the largest category declined and the average size of the largest category was falling. Further, large holdings (>4 ha) were estimated to decline to only 7% by 2000-2001 and 5% by 2010-2011 and account for only 36% and 28% of the area respectively (Jha, 2001). Given this general picture, it is not surprising that the average size of operational holding has been declining since the 1960s and was only 1.57 hectares and average size of ownership holding only 1.14 hectares in 1992. Small farmers (with holdings of <2 ha) accounted for 83.9% of all operational holdings by 2003 (Singh, 2005) Also, small farmers (including landless) had higher livestock ownership (60-80% of all livestock population) including cross-bred cattle where 12-20% small farm and landless households owned these animals compared with only 8-15% in case of larger farm households (Jha, 2001). By 2002-03, the average size of operational holding has come down to 1.09 hectares and proportion of small and marginal holdings in total operational holdings as high as 86%.

Table 1: Comparative contribution of agriculture to GDP in India (at current prices in %) 1980-2003

Sector	Years			
	1980	*1990*	*2001*	*2003*
Agriculture	38.1	31.1	24.7	22.2
Industry	25.9	29.3	26.4	26.8*
Service	36	39.7	48.8	51.0*

*Source: Bayes and Ahmed (2003). For * - Shome (2006).*

Small farms produce 41% of India's total grain (49% of rice, 40% of wheat, 29% of coarse cereals and 27% of pulses), and over half of total fruits and vegetables despite being in rain fed areas, resource constrained, and assuming that they are only as productive as large farms (Singh, et al, 2002; Muller and Patel, 2004). Their contribution to incremental wheat and rice production during 1971-1991 was even higher (62% and 48% respectively). The marginal holdings also had higher cropping intensity (143) compared with that of the small, medium and large farmers (129.9, 119.6, and 111.6 respectively) in the mid 1980s and higher irrigated area as percentage of net sown area with more of it being irrigated by tubewells and canals (1/3rd each) and even that with tanks being quite important (8-11%) (Agrawal, 2000; Singh, et al, 2002).

Dairying accounts for more than 50% of the household income of the landless and 30% of that of the marginal and small landholders. In fact, at the lower end of marginal and small farmer category are those who are 'near landless' i.e. they owned land between 0.002 and 0.200 ha only and accounted for more than 31% of rural households in 1991-92. These are households besides the landless (owning <0.002 ha) who accounted for 11.3% of the total rural households. The 'near landless' category has shown a steady increase since the late 1960s. Thus, more than 42% of the rural households were landless or near landless (Rao and Hanumappa, 1999).

Table 2: Size Distribution of Operational Holdings in India
(1960-1961, 1970-1971, 1976-1977, 1980-1981, 1985-1986, 1990-1991 and 1995-1996)

Category of Holdings	Number (' 000)						Area (' 000 Hectares)						Average Size of Operational Holdings (Hectares)					
	1960-61	1970-71	1980-81	1985-86	1990-91	1995-96	1960-61	1970-71	1980-81	1985-86	1990-91	1995-96	1970-71	1976-77	1980-81	1985-86	1990-91	1995-96
Marginal (Less than 1 Hectares)	19900	35682	50122	56147	63389	71179	88000	14545	19735	22042	24894	28121	0.41	0.39	0.39	0.39	0.39	0.4
	-	(50.6)	(56.4)	(57.8)	(59.4)	(61.6)	-	(9.0)	(12.0)	(13.4)	(15.1)	(17.2)						
Small (1.0 to 2.0 Hectares)	10900	13432	16072	17922	20092	21643	16000	19282	23169	25708	28827	30722	1.44	1.41	1.44	1.43	1.43	1.42
	-	(19.1)	(18.1)	(18.4)	(18.8)	(18.7)	-	(11.9)	(14.1)	(15.6)	(17.4)	(18.8)						
Semi-Medium (2.0 to 4.0 Hectares)	92000	10681	12455	13252	13923	14261	26200	29999	34645	36666	38375	38953	2.81	2.77	2.78	2.77	2.76	2.73
	-	(15.2)	(14.0)	(13.6)	(13.1)	(12.3)	-	(18.4)	(21.2)	(22.3)	(23.2)	(23.8)						
Medium (4.0 to 10.0 Hectares)	66000	7932	8068	7916	7580	7092	40100	48234	48543	47144	44752	41398	6.08	6.04	6.02	5.96	5.9	5.84
	-	(11.3)	(9.1)	(8.2)	(7.1)	(6.1)	-	(29.8)	(29.6)	(28.6)	(27.0)	(25.3)						
Large (10.0 & above)	23000	2766	2166	1918	1654	1404	40400	50064	37705	33002	28659	24163	18.1	17.57	17.41	17.21	17.33	17.21
	-	(3.9)	(2.4)	(2.0)	(1.6)	(1.2)	-	(30.9)	(23.0)	(20.1)	(17.3)	(14.8)						
Total	48900	70493	88883	97155	106637	115580	1314	162124	163797	164562	165507	163357	2.3	2	1.84	1.69	1.57	1.41
	-	(100)	(100)	(100)	(100)	(100)	-	(100)	(100)	(100)	(100)	(100)						

Note : ( ) : Percentage share of various categories to the total (vertical) Source: http://www.indiastat.com/india/showdata.asp?secid=1299&ptid=153&level=3

Since the new economic policy has already made significant progress in the trade and industrial sectors, the focus is now shifting towards bringing about structural reforms in other sectors especially agriculture in terms of mode of organisation of production. This is being attempted in order to bring in better efficiency of input and output markets and promote growth performance of the sector ultimately resulting in rural poverty reduction in India. Though India economy has grown at a high rate (6%) during the last decade, agricultural growth rates have lagged far behind (1-2%). Additionally, the agrarian distress and ecological crisis in the largely small farmer dominated agrarian economy has made matters worse in the presence of globalised and liberalised agricultural markets. The agricultural reforms are being undertaken with primacy given to public-private partnership and a significant role being assigned to private corporate sector in rural development and poverty reduction through trickle down of growth. Corporate farming is one such initiative attempted in many Indian states alongside contract farming. Corporate farming refers to direct ownership or leasing in of farmland by business organisations in order to produce for their captive processing requirements or for the open market. When it is done for captive purposes, it is referred to as captive farming as well, though most of the time, the two terms are interchangeably used. Though, at present, corporate farming is not allowed in India, there have been loud voices in the recent years to get the legal constraint removed so that agribusiness firms could acquire and cultivate land for their raw material requirements. The most vocal demand has been that by the corporate businesses and business associations. Surprisingly, even Sharad Joshi argues for giving a golden handshake to marginal and small land owners and allowing farmer corporations to do corporate farming. Even Punjab State Farmers' Commission (PSFC) has recently recommended pulling out of uneconomic landholders from farming by providing alternative livelihoods (PSFC, 2006). Since corporate farming is not legal at present, the agribusiness firms are increasingly choosing leasing in land option to resort to corporate farming or contract farming as a way out of the situation. In contract farming, they work with independent growers or their groups under contracts for production and procurement of required quality raw materials at pre-agreed price and volume or acreage.

This paper profiles the nature and extent of corporate farming in India in section 2 and examines its rationale in the Indian context in section 3. It then goes on to examine the

validity of the various arguments advanced in favour of corporate farming in section 4. It concludes in section 5 with some alternatives to the corporate farming model.

2. Context and Nature of Corporate Farming in India

Agriculture is a state subject in India so far as policy making is concerned. Therefore, many state (provincial) governments in India have attempted liberalisation of land laws, especially land ceiling laws (Table 3). The states of Gujarat, Madhya Pradesh, Karnataka, and Maharashtra have recently allowed agribusiness firms to buy and operate large land holdings for R&D, and export-oriented production purposes. And, even states like Punjab are 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 political parties representing larger farmers in Punjab are also lobbying for the removal or relaxation of the Ceiling on Land Holdings Act in Punjab (Dhaliwal, 2005). Some of the corporate agencies in the state are asking for longer term lease (20-30 years) of farmers' land for corporate farming. The states of Maharashtra and Gujarat have also enacted laws to allow corporate farming on government wastelands by providing large tracts of these lands (upto 2000 acres each) to agribusiness companies on a long term (20 year) lease (Bharwada and Mahajan, 2006). The Chhattisgarh State Government is also making available about 20 lakh hectares of land for jatropha (biofuel) cultivation. Under the scheme, an individual can lease up to 200 hectares of land at a price of Rs 100 per hectare, per year for the first five years. For subsequent years, these rates could be increased. The State Government has already formulated an action plan including the setting up of the Chhattisgarh Bio-Fuel Development Authority, identifying Government-owned waste or fallow land as well as constituting task forces in various districts (The Hindu Business Line, Sept. 2, 2005). Earlier, the government of Andhra Pradesh had attempted corporate farming under a project in Kuppam in Chittor district during 1997-2002 where the purpose was to test the feasibility of large scale farming through contract farming on lands leased by agribusiness company (BHC Agro India Private Limited - an Israeli consultancy firm). The focus was on precision farming, drip irrigation and quality standards (Dash, 2004). In fact, these changes in land laws can be viewed as a part of the global process of new internationalisation of agriculture wherein new production mechanisms (technology and other inputs) and the new actors (global capital and trading interests) are setting new rules of the game (Raynolds et al, 1993). It is basically a private sector led strategy of agricultural development being pursued as was

the case in Thailand during the 1980s and early 1990s with contract farming driving the model of agricultural development there (Singh, 2005).

Table 3: State-wise Ceilings on Land Holdings in India (In Hectares)

State	Irrigated with two crops	Irrigated with one crop	Dry land
Andhra Pradesh	4.05 to 7.28	6.07 to 10.93	14.16 to 21.85
Assam	6.74	6.74	6.74
Bihar	6.07 to 7.28	10.12	12.14 to 18.21
Gujarat	4.05 to 7.29	6.07 to 10.93	8.09 to 21.85
Haryana	7.25	10.90	21.80
Himachal Pradesh	4.05	6.07	12.14 to 28.33
Jammu & Kashmir	3.6 to 5.06	-	5.95 to 9.20
Karnataka	4.05 to 8.10	10.12 to 12.14	21.85
Kerala	4.86 to 6.07	4.86 to 6.07	4.86 to 6.07
Madhya Pradesh	7.28	10.93	21.85
Maharashtra	7.28	10.93	21.85
Manipur	5.00	5.00	6.00
Orissa	4.05	6.07	12.14 to 18.21
Punjab	7.00	11.00	20.50
Rajasthan	7.28	10.93	21.85 to 70.82
Tamil Nadu	4.86	12.14	24.28
Sikkim	5.06	-	20.23
Tripura	4.00	4.00	12.00
Uttar Pradesh	7.30	10.95	18.25
West Bengal	5.00	5.00	7.00
Ceiling Suggested in National Guidelines of 1972	4.05 to 7.28	10.93	21.85

Source: Ministry of Rural Development, New Delhi. http://agricoop.nic.in/statistics/ceil1.htm, accessed on August 8, 2006.

Land use pattern in India

Forests account for 23% of the total reported area in India which is much below the required minimum forest cover (30%). With Net Sown Area being only 44% of the total, wasteland (barren and uncultivable) accounts for about 11% of the total area (Table 4, and Figure 1).

Table 4: Land-use pattern in India (2002-03) (in million ha.)

Land use description	**2002-03 (P)**		**% in total**
I. Total reported area	-	306.06	100
II. Forests	-	69.07	23
III. Not available for cultivation:			
- Area under non-agricultural uses	24.25		
- Barren and uncultivable land	19.25		
Total	-	43.5	14
IV. Permanent Pastures and Other Grazing Lands	-	10.57	3
V. Land under Misc. Tree Crops and Groves not included in Net Area Sown	-	3.36	1
VI. Culturable waste land	-	13.49	4
VII. Fallow lands:			
- Current fallows	21.53		
- Other fallows	11.68		
Total	-	33.21	11
VIII. Net sown area	-	132.86	44
IX. Total cropped area	-	175.65	

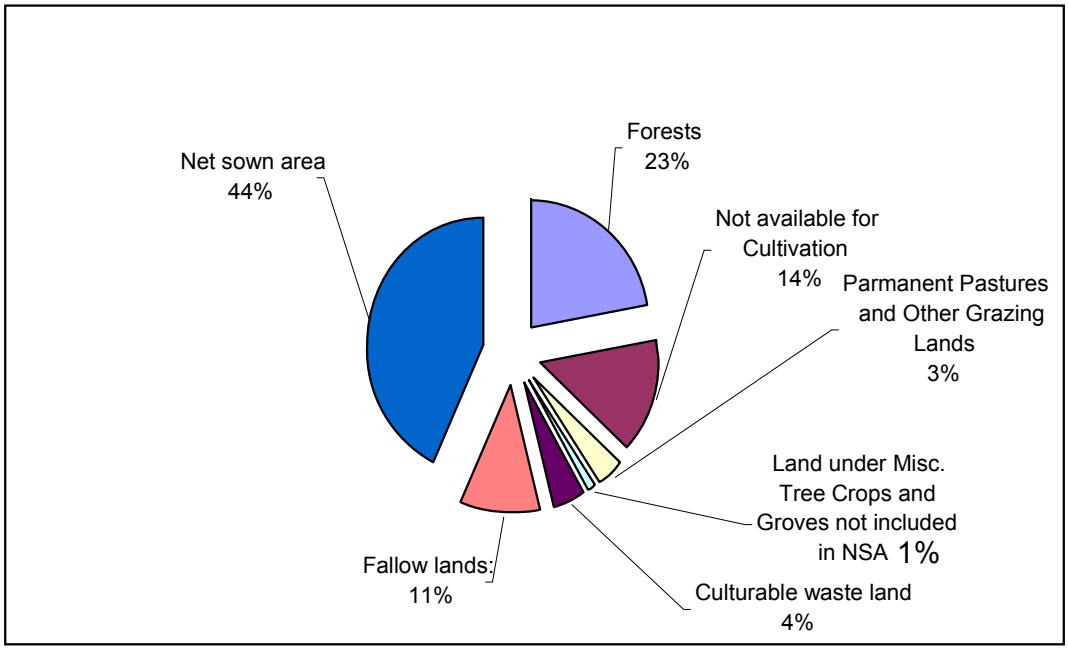
Note: (P), Provisional.

Source:http://www.indiastat.com/india/showdata.asp?secid=10533&ptid=152&level=3, accessed on 9th August, 2006.

Wastelands in India

There were 21.22 million hectares of barren and uncultivable land (7% of total reported area), 11.8 million hectares of permanent pastures and grazing land (3.9% of total reported area), 15 million hectares of culturable waste land (4.9% of total reported area) and 23 million hectares of fallow land (7.7% of total reporting area) in India in 1990-91. Overtime, most of these categories of wasteland have declined in area terms, except current fallows, at the All India level as well as across states. Gujarat and Rajasthan have large culturable wasteland as percentage of total reporting area (10% and 30% respectively) compared with all India average of 17%. They account for 4% and 18% of the total wasteland in India respectively (Table 5 and Maps 1 and 2). They also account for 15% and 16% respectively of total barren and unculturable land in India. There have been many initiatives of the NWDB, Department of Wasteland Development, MoAC, MoEF, and the Planning Commission for the development of wastelands, besides the Tree Growers' Co-operatives (TGCs) of the NDDB (FES, n.d.).

Figure 1: Land-use Pattern in India 2002-03



Source: based on data in table 4.

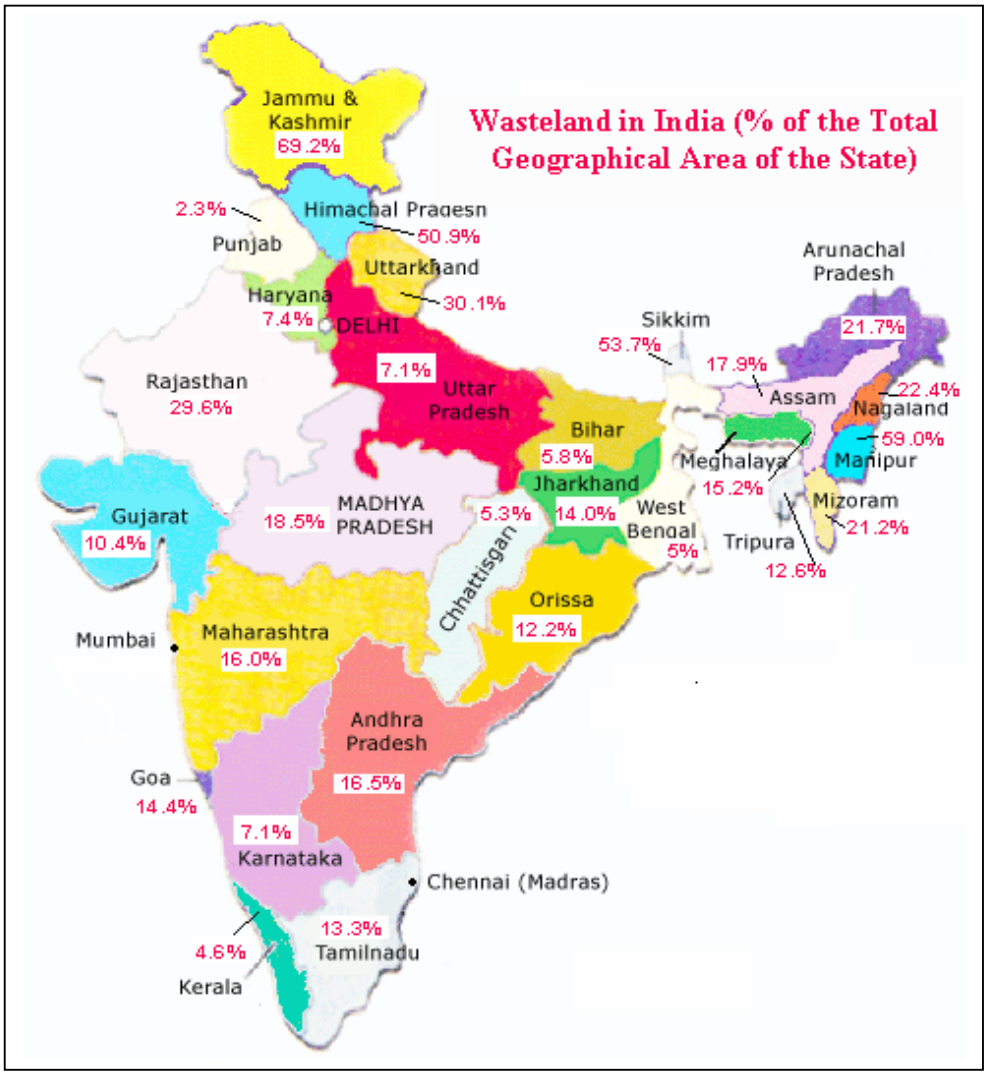
But, the overall performance of these schemes has been slow and inadequate due to reasons like lack of finance, non-transfer of land to communities, poor design of public-private partnership schemes, and land ceiling laws at the state level (Chadha, 1996). The development of wastelands still remains a challenge, and there are issues of gender and equity in the development programmes (Chadha, 2002; FES, n.d.). Therefore, there is a renewed interest in handing over wastelands to private companies on a long term lease basis more recently as part of the overall liberalisation and privatisation process in the rural sector. The government of Gujarat has recently offered wastelands upto 2000 acres for horticulture and biofuels for 20 year lease to big corporate houses and resourceful farmers at the rate of Rs. 500 per acre interest free security deposit. If project does not take off in five years, the leased land will be taken back and the deposit forfeited. There will be no rent for the first five years. For the years 6-10, annual rent will be Rs. 40 per acre and for years 11-20, annual rent will be Rs.100 per acre. There will be a 50% increase in rent if any value addition activity is taken up on the land. The leasee will use micro irrigation technology which is being supported by the Gujarat Green Revolution Company with an initial capital of Rs. 1500 crore. The mortgage of land for loan purposes is allowed. No 'non-agricultural' permission will be required for processing activity (Bharwada and Mahajan, 2006).

Table 5: State-wise Magnitude of Wastelands in India in 2003

S.No.	State	Total wasteland area (ha)	% of total wastelands area in India	Wastelands as % of Total Geographical Area of the state
1	Andhra Pradesh	45267.15	8.19	16.46
2	Arunachal Pradesh	18175.95	3.29	21.70
3	Assam	14034.08	2.54	17.89
4	Bihar	5443.68	0.98	5.78
5	Chhattisgarh	7584.15	1.37	5.26
6	Goa	531.29	0.10	14.35
7	Gujarat	20377.74	3.69	10.40
8	Haryana	3266.45	0.59	7.39
9	Himachal Pradesh	28336.8	5.13	50.90
10	Jammu & Kashmir	70201.99	12.70	69.24
11	Jharkhand	11165.26	2.02	14.01
12	Karnataka	13536.58	2.45	7.06
13	Kerala	1788.8	0.32	4.60
14	Madhya Pradesh	57134.03	10.34	18.53
15	Maharashtra	49275.41	8.92	16.01
16	Manipur	13174.74	2.38	59.01
17	Meghalaya	3411.41	0.62	15.21
18	Mizoram	4469.88	0.81	21.20
19	Nagaland	3709.4	0.67	22.37
20	Orissa	18952.74	3.43	12.17
21	Punjab	1172.84	0.21	2.33
22	Rajasthan	101453.86	18.36	29.64
23	Sikkim	3808.21	0.69	53.67
24	Tripura	1322.97	0.24	12.62
25	Tamil Nadu	17303.29	3.13	13.30
26	Uttar Pradesh	16984.16	3.07	7.05
27	Uttaranchal	16097.46	2.91	30.10
28	West Bengal	4397.56	0.80	4.95
29	All Union Territories	314.38	0.06	2.87
	TOTAL (India)	552692.26	100.00	17.45

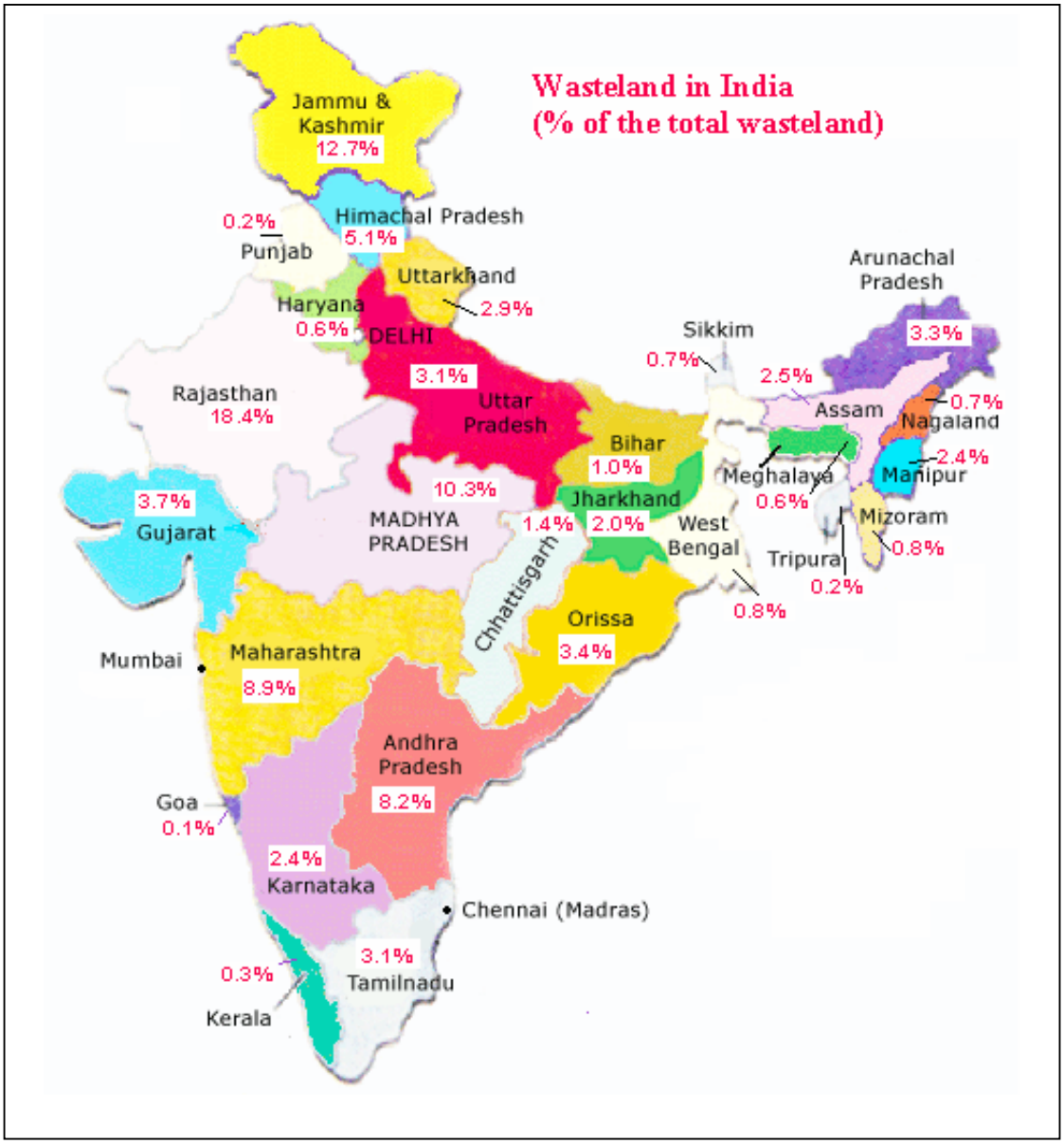
Source: http://dolr.nic.in/WastelandStateArea.htm - accessed on 7th August 2006

Map 1: Waste land area as percentage of geographical area in each state of India, 2003



Source: based on table 5.

Map 2: Percentage share of different states in total waste lands in India, 2003.



Source: based on table 5.

Corporate Farming in India

By now, there are many cases of corporate farming in India (Table 6) as land ceiling laws have been either manipulated by some corporates in the past or have been liberalised by some provincial governments as part of the new economic regime and in a bid to attract domestic corporate and foreign investment into agricultural sector.

Table 6: Cases of Corporate Farming in India

Company	Area/region and crops	Magnitude and Purpose
1, IEEFL, Pune (subsidiary of the Ion Exchange India set up in 1995)	Maharashtra, Tamilnadu, and Goa. Plantations mainly fruit trees	It has 12 farms with four in Tamilnadu, seven in Maharashtra and one in Goa. A total of 1500 acres is made up by about 650 acres in Tamilnadu, 750 acres in Maharashtra and 100 acres in Goa. The land put to CIS was bought from farmers and was cultivable wasteland. Each farm is in a compact zone in each State and mostly in Konkan region. The land was bought at the rate of Rs. 25-30,000 per acre. CIS provided for 80:20 sharing of profits from plantations, now through exports of fruits, with 80% going to the investors after meeting all expenses. There were about 800 participants in the CIS with the largest and the only one with 150 acres and the smallest with 0.5 acres which was the minimum needed as per the scheme. There is a formal agreement with share holders which is renewed every 5 years. The company is only managing the farms on behalf of the owners. Now, certified organic production for domestic and export markets is undertaken on these farms.
2. Jamnagar Farms Pvt. Ltd.- a subsidiary of Reliance Industries (Mukesh Ambani group)	Gujarat, and Punjab; agro-forestry, and horticultural crops	7500 acres of farm land which has mango occupying 450 acres that makes it the largest mango orchard in Asia. The farm was originally set up as an environmental protection measure near its refinery. Now, it is being seen as a profitable venture in itself. The company has invested Rs. 10 crore on the farm during the last 3-4 years and plans to have such farms in other states like A.P., Maharashtra and Karnataka. The projects are expected to take seven years for breakeven and give 30% return after that. More recently, it has been alloted 625 acres of government owned panchayat and common land for its Rs. 5000 crore agribusiness project in the state of Punjab out of which 300 acres are prime agricultural land. Some of this land (150 acres) is on a 30-year long lease and the rest is bought by the company. It is undertaking export oriented corporate farming (50%). Also planning to sell the farm produce in domestic market through Reliance Retail outlets.
3. Anil Dhirubhai Ambani Group (Reliance)	Punjab; Fruits and vegetables	Purchased about 3,500 acres of land from farmers. This would be a multi-product SEZ that would have separate units dealing in food and agricultural produce, the automobile, industry and garments and apparel, among other items. By locating the SEZ in Mansa, the company intends to cater to Haryana and Rajasthan and also be closer to the National Capital Region when approached via Hisar.
4. SYP Agro, Ahmedabad	Gujarat; Onions and other spices and vegetables	Export
5. Agri Gold Hyderabad	A.P.	Export

6. Field Fresh an equal partnership venture between Bharti Enterprises (Airtel group) and Rothschild	Punjab; fresh fruits and vegetables	It acquired 300 acres of land from the Government of Punjab for its model R&D farm called the 'FieldFresh Agri Centre of Excellence' near Ludhiana. The primary focus is on crop and varietal trials, progressive farming techniques, and identification and adoption of appropriate technologies. The farm includes 42 acres of state-of-the-art protected cultivation including poly-houses, glass and green houses, and net houses. All FieldFresh farms are HACCP, EurepGap, BRC and AVA accredited. It has leased in 4000 acres and is using those former owner cultivators as labour on these leased farms. Distribution of fresh fruits and vegetables is done to the European Union, Eastern Europe, South East Asia, Middle East and the CIS countries. It has already sent the first consignment of vegetables to the UK included okra, bitter gourd and chilli. The project claims that the marginal leasee farmer livelihoods have improved compared to when they were cultivator owners as the project pays minimum wages (Rs. 80/day). Thus, a farmer whose land is leased in by the company gets Rs. 15,000 per acre lease rent and if two of his family work on these leased out farms as labour, earn Rs. 57,600 annually. Thus, a two-acre farmer can earn Rs. about Rs. 90,000 (30000 rent plus 60,000 wages) annually compared with what he gets from his farm (Rs. 50,000) as gross output (without any cost deductions) if he goes for wheat and paddy crop cycle which is very common in Punjab (personal communication with Mr. Rakesh Bharti Mittal). It is also working with other agribusiness firms like Rajtech Agro Plantations, Jaipur and Satluj Organics, New Delhi for leased land production of fruits and vegetables. Rajtech had last year leased 200 acres from 17 farmers near Chomu at the rate of Rs. 7000 per acre and was paying Rs. 5000 per month to supervising farmers. The company gets 17% of the profits made by Fieldfresh on the sales of the supplies made.
7. Satluj Agriculture Pvt. Ltd. New Delhi	Punjab, mainly vegetables for Field Fresh	Lease in land @Rs. 17,000 per acre for 2.5 years, Leaser farmer to provide all farm machines and operator/s, **minimum 25 acres** with valid 10 HP tubewell connection required in one place, local leasee farmers/sons (minimum +2 pass) employed as managers for Rs. 6, 000/month, land leased in a local large farmer's name without any written agreement; are suppliers to Field Fresh; Pay labour @ Rs. 85 per day for men/women, excluding PF contribution, 8AM-5PM work hours; 5,000 acres at three places (Fatehgarh Sahib, Sangrur and Jalandhar districts)
8. Council for Citrus and Agro Juicing in Punjab (A state govt. sponsored agency)	Punjab, fruits	Leases land @Rs.8-12,000/ acre for 12 years from farmers under two options: 20% increase in rent every 3 years OR 2% increase for 6 years and then 50:50 sharing of fruit profits; **minimum 10 acres needed**
9. Nijjer Agro, Amritsar	Punjab, fruits and vegetables	Leases land; 4000 acres this year.

10. Vimal Dairy with a capacity to process 2.5 lakh litres of milk (a part of the Rs. 900 crore Vimal Group), Ahmedabad	Narmada canal area in north Gujarat; milk for captive consumption	The first contract cattle farm on 1000 acres of land with an investment of Rs. 30 crore. This land (1000 acres) will be leased on contract to landless and marginal farmers with each getting 6-12 acres for 10 years. They will also be provided water, electricity, and milch animals along with land. It will also have veterinary and milk chilling facilities. The milk produced on these farms will be procured by Vimal Dairy and after deducting all the payments due for water, electricity and animals, the farmers will be paid for their milk. The young calves of the animals will belong to farmers. The contract will be renewable with mutual understanding and the project is focused on women dairy farmers. It is expected to provide livelihoods to 70-100 families. Domestic and export markets are the focus (as told by one of the company employees).

Source: compiled from secondary and primary sources.

IEEFL corporate farming operations

The farms have been leveled and provided with drip and lift irrigation implemented by Excel and Netafim. All these farms are now totally organic and certified by EcoCert since 1997. The certification cost for all the farms is Rs. seven lakh per annum. The farms were bought in the name of the directors of the company as agriculturist who were so to begin with, and some employees of the company who were also agriculturists, to avoid the Land Ceilings Act. The other shareholders in the scheme to whom the land was to be transferred were made agriculturists by buying 100 acres of wasteland in M.P. as it was already permitted there. This land was bought by the company in the name of investors. The titles of the farms bought in Maharashtra were transferred to these so called agriculturists. In Tamilnadu and Goa, there is no condition of only agriculturists being eligible to purchase land. Though the share price varies across farms and farmers in Maharashtra, it was Rs. 1,30,000/- per acre per share of which Rs. 30,000/- was spent on land development and registration besides maintenance of the land. The gestation period has just got over and now the 80:20 sharing will take place. However the land appreciation has already taken place for the investors. The company also gives gifts of farm or any other organic produce to the investors.

Mainly horticultural crops are grown on IEEFL farms besides some intercrops. The organic bananas were sold to the NDDB during 1998-2003 for processing into banana puree for export which were of the order of 400 MT. These were advance orders with 50% advance payment and a premium of 30% on market price for conventional bananas

in Jalgaon market in Maharashtra. Besides, a commission of Re. one per kg. was paid as transport cost for delivery to the NDDB factory at Goregaon in Mumbai. The NDDB factory was also certified organic as part of IEEFL's 'chain of custody' with the cost of certification being born by the NDDB. Other than selling to the NDDB, the organic produce was sold in the local market as the company was not involved in exports or domestic marketing of organic produce. Even now, there are no direct exports by the company. The supplies to NDDB have been stopped now due to crash of international prices for banana puree. The CIS still continues though no returns have been given to the investors so far. There is a farm manager for each farm and one assistant for 50 acres each. The labour supply comes from those who sold land to the company and work as casual labour. The manager and the assistant, besides a watchman, stay on the farm.

The farm managers of the company have been trained in organic farming by experts. The present supply chain manager is a former employee of Excel Industries. Since its own farms were in wasteland, it got certification in first year itself. It also provides consultancy for organic farms at the rate of 15% of project cost except land and infrastructure or including them in some cases, so that it has larger base to procure from. It has provided such services to 12 farms in India already and one in Oman. So far as corporate farming is concerned, the cost of production is very high due to the high overheads. Here the company is continuing as its only managing the farms in the name of shareholders who are land owners (Singh, 2006).

3. Rationale for Corporate Farming

It is argued that large-scale corporate agriculture is more efficient than peasant farming prevalent in the country. It leads to better allocative efficiency, induces higher private investment in agriculture, and results in higher output, income and exports (Mishra, 1997). The average size of the operational marginal holdings was only 0.35 hectares and those of the small holdings 1.41 hectares in 1992 compared with 2.69 and 5.79 hectares respectively of the semi- medium and medium category holdings and 15.41 hectares in the case of large category holdings. The ownership holding averages for these categories were even smaller with the exception only of large category holdings which was slightly larger (Singh, 2005). In fact, it has been argued that the small and marginal farms even in states like Punjab are not viable for sustaining a family and need larger holdings (Johl, 1995). These small holders should get out of farming if they are not able to move on to more

export-oriented and commercial crops like fruit and vegetables as it will not be viable to grow food crops on small holdings. Even some farmer leaders like Sharad Joshi of Shetkari Sanghatana argue that the state should facilitate the exit of small and marginal farmers from farming by buying their land at market prices and provide them capital and training to go for non-farm occupations. Only those who have the mindset, technology, management, and financial resources to face the challenge of the Second Green Revolution should be permitted to do farming as an agribusiness (Joshi, 2006). Further, small farms are highly fragmented. Land transactions have led to further fragmentation making them non-viable in terms of resource use as well as family sustenance. The costs of fragmentation included increased travel time between farms and hence lower labour productivity, higher transportation costs of inputs and outputs, negative externalities for land quality improvement like irrigation, loss of land on boundaries and greater potential for disputes (Mani and Pandey, 1995). A study of a Tamil Nadu village found that, of the small farmers (60% of all) who owned less than three hectares of land each, 35% had 3-5 plots and 25% had 5-10 plots and the remaining less than three plots. On the other hand, of all the farmers in the village, only 20% farmers had more than five plots each, another 40% had 3-5 plots each and remaining less than three plots each. Thus, small farms were somewhat more fragmented. Further, the study showed that fragmentation had adverse impact on the technical efficiency and the production of most of the crops, and consolidation led to large gains in technical efficiency. But, still markets have not even led farmers to consolidate their operational holding, if not owned holdings (Parikh and Nagarajan, 2004).

Further, export-oriented agriculture requires large investments which only big agri-business enterprises can afford (Rangswamy, 1993). It is argued that India has been exporting some agricultural products which are available for exports after meeting domestic requirements. It is alleged that she has never produced for export. This not only leads to instability of supplies in domestic markets, but also a failure to meet export commitments, which results in losing the established markets. Besides, India ends up going to the world market for importing for domestic consumption as well. It is here, that corporate farming is a must for stable production and export performance (Singh, 1994). It is also said that allowing foreign companies to buy and operate land would open the doors to their technology in horticulture, food processing, etc. Further, if there is no ceiling on the assets of a firm, why should there be such a restriction on the farm firms or agribusiness enterprises? (Johl, 1995).

4. The Case Against and Evidence

The opponents of corporate farming argue that allowing companies to buy land will make farmers landless since the companies would offer prices which may be too tempting for the poor farmers to resist and they may not be able to negotiate fair prices for their land. Land owners, therefore, would run the risk of becoming landless (Vyas, 2001). Further, other stakeholders in such land other than the title holder, like women or children, may run a risk of losing access to such land and therefore food security and social status. This has serious gender implications in an already gender biased rural context. To avoid such a situation, it is proposed to allow only leasing in of land by the companies and to share the company profits with the farmers who will lease out land to the companies. On both these fronts, the chances of agriculturists being taken for a ride by the companies are quite high. The key issue is how to protect the farmers, while allowing the companies to use their land where the farmers work as labour and suffer from the monopolistic contracts with the companies? (Dash, 2004). Also, in a country where the population pressure on agricultural land is already high, it is debatable whether captive or corporate farming is the most optimal use of agricultural or even degraded land.

Also, investing capital in land purchase per se does not yield profit, irrespective of the existence or absence of ceilings on land ownership. Such an investment by a business enterprise is solely for the purpose of rent-seeking and/or for unearned speculative capital gain in a situation of fast rising land prices. Corporate demand for removal of ceilings makes sense only in the presence of such a motivation. But, this is contrary to the nature of a corporate, capitalist enterprise driven by profit seeking. Such an investment is also socially wasteful of capital, even otherwise a scarce social resource. It merely leads to the transfer of land from one hand to another (Mishra, 1997).In fact, it is known from experiences of other developing countries, and of India where contract farming is now widespread, that agribusiness firms producing for export tend to undermine the local food production systems as they go in for export-oriented non-food crops by displacing area under basic food crops which is so crucial for local and national food security (Patnaik, 1996) and exploit farmers (Dash, 2004).

In the past too, many attempts to allow captive farming on degraded land under the agro-forestry programmes have become controversial over such issues as the definition of

degraded land and the displacement of those holding grazing or other common rights to such land as the 'so-called wasteland' is not really wasteland for those who depend on it for their livelihoods (food, fuel, and fodder needs) as a common property resource (Singh, 2002; FES, n.d.)) as is the case of Maldharis in Gujarat. Further, classification of wastelands is also questionable as e.g. in Gujarat 'common lands' and 'uncultivable' land have been classified as wastelands (Bharwada and Mahajan, 2006).

So far as efficiency is concerned, there is no conclusive evidence of farm productivity rising with increasing farm size, rather small farms have been found to have higher output per hectare (Toulmin and Gueye, 2003). In fact, land reforms drew their logic from the evidence which pointed to the inverse relationship between farm size and productivity (Lipton, 1993). Also, economies of scale are important not at the production level but at the processing stage which can be availed of under contract farming or co-operative processing arrangements (Vyas, 2001). If the argument of efficiency of large holding has any logic at all, it can still be practised by increasing the size of operational holdings even under the existing land laws by way of consolidation. Ownership of land is not a necessary condition for corporate agriculture. Since agricultural sector in India, quite in contrast to the industrial sector, has functioned in a competitive environment - with very large number of producers and consumers in the market - there is no evidence to suggest that under the present system of peasant farming, allocation of resources is inefficient (Rao, 1995). If a proof is needed, it should be seen in the growth rate of agricultural production and changes in the efficiency of capital use. Agricultural production has grown at an average rate of 3 –3.5% per annum since the late 1960s and the marginal efficiency of capital in Indian agriculture more than doubled, from 0.150 in the 1960s to 0.414 in the 1980s (Mishra, 1997).

Further, the experiment of corporate farming in many developed and developing country situations did not succeed largely due to the internal problems of the agribusiness firms. For example, in Iran, most of the firms failed, when they were given large chunks of land for cultivation, due to the mismanagement which resulted from the lack of relevant experience. The main reasons were managerial in nature, like neglect of field improvement, no contingency planning, under-capitalisation, managerial inflexibility, and poor labour relations (Strohl, 1985; Johnson and Ruttan, 1994)). The external reasons included diseconomies of scale which suggested that there were limits to farm size growth worldwide (Johnson and Ruttan, 1994). Large-scale corporate farms failed in UK, Venzuela, Ghana,

Brazil, and Philippines besides Iran despite the presence of significant 'external economies of scale' in terms of subsidised inputs including land, low interest credit, and tax and duty benefits (Johnson and Ruttan, 1994; Toulmin and Gueye, 2003). A major adverse fall out of such schemes was displacement of large number of peasant farmers (Toulmin and Gueye, 2003). On the other hand, there have been many cases of success when the firms worked with local farmers under the contract system or leased in their land (Johnson, 1985).

The argument of parity with the industrial sector for removal of ceilings (Johl, 1995) too does not stand ground on closer examination. It is well known that the assets of a private, corporate industrial firm are not exclusively owned by those who control and manage it or by the business house in whose name the firm is run. The assets are owned by hundreds, and in cases where the firm is large, by tens of thousands of shareholders, financial institutions, and trust funds. When such a pattern of asset ownership is transplanted to agriculture, it implies widespread ownership of land and also capital assets of an agri-business firm. This condition is met when hundreds of landowners in various size-classes lease out their land to the firm and become shareholders in its capital investment, if the firm's goal is direct agricultural production. Alternatively, if the firm's goal is agro-processing, then the above condition is met by vertical co-ordination of production, processing and marketing. In this case, hundreds of owner-farmers engage in required type of production under a contractual arrangement, and the agro-processing enterprise processes the produce. However, under such an arrangement, transaction costs of the enterprise are high and when the open market price of the produce is high, delivery of the produce becomes uncertain as the producers divert the produce to the open market. The solution to such problems lies in making the producers shareholders in the enterprise in such a way that they not only share the transaction costs but also lose on the dividend earnings for failure to deliver more than the expected gains from open market sales. In brief, they are made to have a stake in the processing enterprise (Mishra, 1997).

5. Conclusion

There is no case for removal of ceilings on land holdings for corporate business to operate in agricultural production sector or for farmers to reap economies of scale, on grounds of size limitation, provided there exists a freer land-lease market (Vyas, 2001; Dogra, 2002). If operational holdings are to be enlarged for more viable operations, that can be achieved by making the land lease market more efficient or by pooling land together under some

co-operative enterprises, for collectively buying inputs and selling produce, if not for co-operative farming. If agricultural growth is to be shared in order to realise the virtuous circle of growth and distribution, only a peasant farming system using modern technology of production can achieve it, as the East-Asian experience has shown. Not only it is more competitive compared to the capitalist/corporate farming system, but also peasants do respond and adopt new technologies of production whenever opportunity arises. The experience of the Green Revolution in Punjab is an excellent example of this. Secondly, it is able to employ more labour as the peasant farmers substitute labour for capital much better, than the capitalist farming can ever do, given its normal motive to maximise profit (Mishra, 1997).

There is, however, a case for increasing the holding size at the lower end to make the holdings viable (Mani and Pandey, 1995). This can be done by provision of term credit through Land Development Banks to the small/marginal farmers below the poverty line, so that those willing could purchase land and increase the size of their ownership holdings (Rao, 1995). But, it may not help solve the problem of viability as it leaves no room for those at the lowest end who want to move out of it. The best course seems to be to have a free land market within the limits of land ceilings, with provision of land purchase credit facility for the small/marginal farmers. But, given the population pressure, family divisions, equal inheritance law, and deep-rooted attachment to land, even this policy may not wholly succeed in eliminating the unviable marginal holdings. About 15 years ago, a working group of agricultural economists under the chairmanship of late Sukhmoy Chakravarty, had come to the conclusion that introduction of a floor to the ownership holdings would be necessary to tackle the issue. The U.P. Zamindari Abolition and Land Reforms Act of 1950 accordingly has a clause fixing the floor limit at 1.26 hectare. It is another matter that this provision has never been implemented. Of course, it goes without saying that the floor limit will have to be different in different states just as the ceiling limits are different (Mani and Pandey, 1995; Mishra, 1997).

Finally, there is a need to look at contract farming alternative as it meets the needs of both corporate agribusinesses as well as small producers. The superiority of contract farming over corporate farming is evident in its more widespread and sustained practice as compared with corporate farming experiences (Winson, 1990) and in its positive impacts like producer link up with profitable markets, better farm incomes, skill upgradation due

to transfer of technology, and sharing of market risk even in India (Glover and Kusterer, 1990; Benziger, 1996; Dileep et al, 2002: Deshingkar et al, 2003; Dev and Rao, 2004). It does not atleast make small farmers landless unlike corporate farming. Even the environmental aspects of contracting are not as damaging as small farmers maintain control over farm operations which is good for environmental sustainability though when unregulated and not ethically practiced, it can lead to environmental degradation (Morvaridi, 1995; Singh, 2002) and exclusion of small producers (Warning et al, 2003; Singh, 2006a). Further, there is sharing of benefits in contracting as against corporate farming. Of course, this requires regulation and monitoring of contracting agencies by third parties or farmer organisations like co-operatives and farmer groups or the state. In general, contract farming has positive impact on non-contract growers and rural development in general if properly leveraged with state policy and local institutions like group contracts, though it is not a development tool (Goldsmith, 1985). It has been in practice in India for quite some time now with mixed results and more recently, there has been policy thrust on this mechanism of vertical co-ordination. Therefore, there is a need to build partnership into contract farming (Eaton and Shepherd, 2001) where companies not only offer contractual terms for working with farmers but also share their business risk and profits with producers as equity shareholders. It is being done successfully by a sugar company in Karnataka in south India.

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Glossary

A.P. -Andhra Pradesh

CIS- Collective Investment Scheme

FES- Foundation for Ecological Security

GDP- Gross Domestic Product

HACCP- Hazard Analysis and Critical Control Points

IEEFL-Ion Exchange Enviro Farms Limited

MoAC- Ministry of Agriculture and Co-operation

MoEF- Ministry of Environment and Forests

M.P. –Madhya Pradesh

NDDB- National Dairy Development Board

NWDB- National Wasteland Development Board

PAU- Punjab Agricultural University

SEZ – Special Economic Zone

U.P. – Uttar Pradesh