

Appendix A: List of firms undertaking contract farming

There does not exist a database about the companies procuring through contract. However, I have tried to prepare a list of companies which are carrying out contract farming. This list (Table A.1) has been compiled through different sources of literature such as through website of Ministry of Agriculture, GoI, Ministry of Food Processing, GoI, NABARD, MSAMB, and other print and electronic sources. The list is incomplete and was during the course of Ph.D. Hence, currently not sure which among them is non-functional. As can be seen from the Table A.1, that contract farming is carried out in various crops right from special kind of wheat or basmati paddy, medicinal herbs, poultry, fruits and vegetables.

Table A.1: Partial List of Companies which have adopted contract farming

S No	State	Crops	Company
1	Mahaarashtra (Ratnagiri and Sindhudurg districts)	Patchouli (Aromatic oil plant)	S. H. Kelkar Group of companies
2	Maharashtra	White Onion	Jain Irrigation
3	Maharashtra	Many Crops	Mahindra Shublabh
4	Maharashtra	Winery grapes	Champagne (I) Ltd & many other wineries
5	Maharashtra	Table variety grapes	Tata Chemicals
6	Maharashtra (Ambegaon taluka, Pune district)	Fodder for 3500 cows	Gowardhan Dairy
7	Maharashtra (Junnar taluka, Pune district)	red onion	Panchganga
8	Maharashtra (Junnar; 150 Farmers)	Banana	Gargi Agribiotech
9	Maharashtra (Wardha, Yavatmal)	Cotton	12 companies
10	Maharashtra, MP, Gujarat, Karnataka, Chattisgarh, Rajasthan	Safflower	Marico
11	Maharashtra (650 farmers, 1200 acres Nashik district)	Tomato	Varun Foods
12	Maharashtra, Andhra Pradesh (AP), TN;	Broiler	Sri. Venkateshwara Hatcheries; Swathi Hatcheries; Pioneer; Suguna Poultry
13	Maharashtra, Gujarat, Punjab, West Bengal, Karnataka	Potatoes,	Pepsi Co (I)
14	Maharashtra, TN, MP, Gujarat, Haryana,	Organic products of banana, potato, wheat, papaya, basmati, cotton	Ion Exchange Enviro Farms Ltd.
15	Maharashtra, Punjab, UP, MP, , Karnataka	Basmati, Wheat, Fruits and Vegetables	Rallis

S No	State	Crops	Company
16	Karnataka	Marigold, Caprica Chilly	AVT Natural Products Ltd
17	Andhra Pradesh	guar	Agrilogix
18	Gujarat; Punjab; Lahaul Spiti (HP)	Sesame seeds; Potato; Seed potato	McCain (I) Ltd
19	Karnataka and other adjoining area in other states	herbs	Rosun Naturals Products Pvt. Ltd.
20	Karnataka, AP	Gherkin, baby corn, paprika	Global Greens, Sterling Agro Products, Ken Agritech, Green Agri Pack, Unicorn AgroTech
21	Karnataka, Tamil Nadu	Organic Cotton	Appachi Cotton Company
22	Madhya Pradesh	Wheat, Maize and Soybean	Cargill India Pvt Ltd
23	Madhya Pradesh	Wheat	HLL
24	Madhya Pradesh	Soyabean	ITC - IBD
25	Madhya Pradesh	Pomegranate	Sanjeevani Orchards
26	Punjab	Chilies, Basmati, Groundnut	PepsiCo
27	Punjab	Tomato and chilies	Nijjer Agro Foods
28	Punjab	Basmati	Satnam Overseas, Escorts
29	Punjab	Milk	Nestle
30	Punjab, Rajasthan, UP and Maharashtra (200 farmers)	Baby corn, sweet corn	Bharti Del Monte
31	Rajasthan	Barely	SAB-Miller (I)
32	Rajasthan	Guar	Vikas WSP Ltd
33	Rajasthan (1300 farmers)	Barley	UB Group through PepsiCo
34	TN	Paddy (Branded rice Ponni)	EID Parry

Source: adapted from electronic and print media sources

Appendix B: Farmer Schedule

My name is Varun Miglani. I am the PhD student at Gokhale Institute of Politics and Economics (GIPE), Pune. This study is being carried out for my PhD thesis. Study attempts to understand economics of contract farming vis-à-vis non-contract farming. The study also attempts to identify factors influencing farmers' decision to participate or leave contract farming. I would like to learn about your experience of contract farming and therefore would ask you certain questions. In case, during the interview, if you have doubt in any question, please ask me for explanation. I am a student and have no links with any company or government. Our conversation will be totally confidential and will be used exclusively for research purpose. I will ensure that whatever I write down will not be viewed by anyone else. There are no direct benefits and risks to you for sharing the experience. Your cooperation will be very useful for the study and my overall learning. Results of the study will help us in better understanding of contract farming.

Farmer ID No:	Crop	Season	year	Current Contracting status	landholding class	Type of Irrigation used for crop	Date
Contract farming household grew chip-grade potato in Kharif, 2012-13/white onion in Rabi, 2011-12							1
Non-contract farming household previously in contract for chip-grade potato/white onion							2
Non-contract farming household never grew for chip-grade potato/white onion in contract							3

1. Identification & Demographic Characteristics

1.1	Name of farmer		1.6	Proportion of non-farm income in total income	
1.2	Village		1.7	Age of head HH (years)	
1.3	Taluka		1.8	Education of head of HH	
1.4	District		1.9	Social Group (SC/ST/NT/OBC/Gen)	
1.5	Family members within household	Below 15 years		1.10	Main occupation
		Between 15-65 years non-studying	M	1.11	Subsidiary occupation
			F	1.12	Experience of farming (years)
		Above 15 yrs studying full-time		1.13	Crop experience
		those above 65 years		1.14	Distance of farm to metaled road (km)
	Employed in non-farm		1.15	Contact no:	

2. Resource Endowments:

2.1 Particulars of land (Acres)

Sr	Particulars	Owned	Leased in	Leased out	Total Land
1	Rain fed Land				
2	Irrigated Land				
3	Fallow Land	Temporary			
		Permanent			
4	Method of irrigation	Flood			
		Drip			
		Sprinkler			
5	Availability of irrigation*				
6	Total Land				
7	Terms of lease@				
8	Rental value				

+ 1: Kharif season only; 2: Rabi season only; 3: All seasons available; 4: Kharif & Rabi only (not summer);

@ 1. Fixed cash rent; 2. Output sharing; 3. Output and input sharing both

2.2 Compared to other farmers' lands in your village, would you say that the agricultural land you own is:
1) More fertile; 2) Equally (or just as) fertile; 3) Less fertile

2.3 Livestock

Livestock	Bullocks	Cows	Buffaloes	Sheep	Goat	Poultry	Others_____
Number							
Market value							

2.4 Machinery and Equipment

Sr.	Particulars	Number	Year of Purchase	Purchase price	Market Value
1	Bullock Cart				
2	Open Well				
3	Tube well				
4	electric motor				
5	Tractor				
6	Plougher				
7	Rotravator				
8	Trolley				
9	Tiller (Cultivator) (Panja				
10	Paas (Vakhar) of tractor				
11	Drip set				
12	Sprinkler set				
13	Sprayer				
14	Bullock Plough				
15	Bullock vakhar				
16	Other bullock equipments				
17	Farm Building				
18	Cattle shed				
19	Diesel Pump				
20					

3.1 Cropping Pattern in the past year (Area in acres)

Kharif				Rabi		
No:	Crop	Dry/Irrigated	Acreage	No:	Crop	Acreage
1		Dry		1		
		Irrigated		2		
2		Dry		3		
		Irrigated		4		
3		Dry		5		
		Irrigated		6		
4		Dry		Total		
		Irrigated		Summer		
5		Dry		1		
		Irrigated		2		
6		Dry		3		
		Irrigated		4		
7		Dry		Total		
		Irrigated		Perennial		
8		Dry		1		
		Irrigated		2		
Total		Dry		3		
		Irrigated		Total		

4. History of contracted crop cultivation & contracting details

4.1 In which year, you first time grew chip-grade potato /white onion under contract?

Year	Season	Company Name			
PAST HISTORY					
Year	Whether grew contract crop	Contracting Status and Company Name	Year	Whether grew contract crop	Contracting Status and Company Name
2001	1. Yes 2. No	1. Contract (_____) 2. Open	2007	1. Yes 2. No	1. Contract (_____) 2. Open
2002	1. Yes 2. No	1. Contract (_____) 2. Open	2008	1. Yes 2. No	1. Contract (_____) 2. Open
2003	1. Yes 2. No	1. Contract (_____) 2. Open	2009	1. Yes 2. No	1. Contract (_____) 2. Open
2004	1. Yes 2. No	1. Contract (_____) 2. Open	2010	1. Yes 2. No	1. Contract (_____) 2. Open
2005	1. Yes 2. No	1. Contract (_____) 2. Open	2011	1. Yes 2. No	1. Contract (_____) 2. Open
2006	1. Yes 2. No	1. Contract (_____) 2. Open	2012	1. Yes 2. No	1. Contract (_____) 2. Open

4.2 Do you grow chip grade potato/white onion on same piece of plot every year? 1. Yes; 2. No

4.3 How did the first contact happen with the company? (Show card)

- 1) A friend/neighbour/fellow-farmer/relative introduced me / put in a word for me
- 2) I contacted the company official /agent on my own
- 3) The company official/ agent approached me personally
- 4) The company official/agent was canvassing in the village and asked for volunteers
- 5) Others (please specify) _____

4.4 Were there any eligibility criteria that you know of in order to get selected by the firm? Yes/No/ Unaware?

If YES, please list any eligibility criteria. Why do you think you were selected? [show card]

1	trustworthiness	6	Crop experience
2	Hard work and ability	7	Through reference
3	Reputation	8	Availability of irrigation
4	Those who will comply & obey	9	Others
5	Land (good soil)	10	

4.5 What were the reasons that led you to join Contract farming?(show card)_____

1	Good remunerative price	8	Minimum guaranteed price
2	Assured market for produce	9	Friend/neighbor suggestion
3	Seeing the success of co-farmers.	10	Procurement at farm gate
4	Quality seeds	11	Free gunny bags
5	Extension service & technical advice	12	Availability of credit
6	Trustworthiness of company	13	Expecting higher return
7	Good/higher production		

4.6 Is it a written contract?

1. Yes (continue); 2. No (Skip to 4.7)

4.7 Do you have a copy?

1. Yes; 2. No

4.8 What is the language of contract?

1. English; 2. Marathi

4.9 Have you read it or had it read to you?

1. Yes; 2. No

4.10 What inputs /services you received directly or indirectly through company? (show card)

Code	Items	free	Credit	Payment		Discount	Hired basis
				Advance	Deferred payment		
1	Seeds						
2	Organic Fertilizer						
3	Equipment, Machinery, Planter						
4	Assistance for Bank Loan						
5	Extension service						
6	Irrigation systems assistance						
7	Gunny bags						
8	Arranging transport						
9	Soil & water testing						
10	Training programmes/workshops						

4.11 Which of the decisions of farming are controlled by company? (show card)

1	Sowing dates	5	Which pesticide
2	Which seeds	6	When to harvest
3	Which fertilizer	7	Others
4	Which weedicide		

4.12 How often did company's fieldmen/officials visit you in the past crop growing season to discuss production related matters? (Show card)

1	Once a week	4	Once or twice during the crop cycle
2	Once in 15 days	5	Never
3	Once in a month		

4.13 What are the benefits of contract farming with the present firm, you could realize? (show card)

1	Good remunerative price	6	Minimum guaranteed price
2	Good yields	7	Extension and technical advice
3	Easy credit availability	8	Flexible price
4	Availability of quality seeds/inputs		Others (_____)
5	Assured Market for produce		

5. Cost of Cultivation of white onion for Rabi season/chip grade potato for Kharif season?

5.1 Method of Plantation

1	Direct sowing in field through bullock/planter	Ask Q. 5.2 & then go directly to 5.3
2	Hand dibbling	
3	Transplanting (only for white onion)	Continue

5.2 Seeds Costs

Seeds Variety	Quantity	Price	Total
Seed treatment chemical cost	Rs.	FL	HL

Section 5.3 for onion growers only, Skip to Section 5.4 for CGP

5.3 Nursery preparation costing

5.3.1 Acreage under nursery preparation? _____

Land preparation	Days/hrs		Wages (Rs)		Total Cost	
(A) Ploughing;	M	F	M	F	M	F

harrowing						
Machine Labor						
Family labor						
Hired labour						
Bullock labor						
(B) FYM/Fertilizers/Weedicide/fungicide/tonic	trolley/qty	Price	Total Cost	Labour cost		
				FL	HL	ML
Farm Yard Manure						
(C) Manual weeding	Days/hrs		Wages (Rs)		Total Cost	
	M	F	M	F	M	F
Family labor						
Hired labour						

5.2.4 Irrigation

No. of times irrigation	FL			HL			Diesel/Power cost (months: _____ acreage: _____)
	Days	Wage rate	total	Days	Wage rate	total	

5.4 Costs on Main Land cultivation

5.4.1	trolley/qty	Price	Total Cost	Labour cost		
				FL	HL	ML
1) Farm Yard Manure						
2) Fertilizers						
Urea						
DAP						
Labour	Days/hrs		Wages (Rs)		Total Cost	
	M	F	M	F	M	F
A) Land preparation (ploughing & harrowing)						
Machine Labor						
Family labor						
Hired labour						
Bullock labor						
B) Sowing for chip-grade potato/Transplantation for white onion)						
Family labor						
Hired labour						
Bullock labour						
C) Weeding (No. of times _____)						
Machine Labor						
Family labor						
Hired labour						
D) Harvesting, Storage & Grading						
Family labor						
Hired labour						
Bullock labor						
Weedicide/Pesticides	Qty	Price	Total Cost	FL	HL	ML
Weedicide						
Pesticide						
Fungicides						

5.5 Irrigation

No. of times irrigation	FL			HL			Diesel/Power cost (months: _____ acreage: _____)
	Days	Wage rate	total	Days	Wage rate	total	

6. Packaging costs

No. of bags	Rate	Total	Transport wage	Hired labour						Family labour					
				Days		Wage rate		total		Days		Wage rate		total	
				M	F	M	F	M	F	M	F	M	F	M	F
			Packing labour												
			Transport labour												

7. Storage costs

7.1 Did u stored up the farm produce? 1. Yes; Period: _____ 2. No

Place of storage	Mode of storage	Quantity	Total Cost

9. Production and marketing details

Seed Variety	Production	Whom did you sold*	quantity	Selling price	Total payment	Transport	tractor	Market (APMC) charges / Arthiya

*1: company; 2: other trader; 3: other company; 4: APMC Market

9.1) How many days after the sale of output, did you receive the full payment? _____ days

9.2) Volume of product that you did not sold to company as it did not met company standards? ___kgs

9.3) What did you do with that crop?

1	Left at the farm itself for fodder for sheep/goats	2	Sold in the market
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9.4) What is the volume of product that was lost due to spoilage /wastage? _____ kgs

9.5) Has it ever happened that your produce have been ever rejected by company? 1. Yes; 2. No

Ask Q. 10 only for contract farmers

10. In the last season, had any company/trader approached you regarding the sale of contract crop?

1. Yes; 2. No;

11. What was the prevailing price in the local market or price offered by another company when you sold your price?

	Contract price	Price offered by competing firm/market	Difference
previous			
back to back season			

Q. 12 to 17 only for contract farmers

12. As you would know some of the farmers sell the part of their contract crop to other buyers, have you ever in the past sold your contract crop to other buyer?

1. Yes (continue); 2. No (Skip to 14)

13. In the last season, have you sold the contract crop to any other buyer (local market or another company)?

1. Yes (proportion of contract crop: _____ %); 2. No (Continue)

(Reasons: _____) (Skip to 14)

14. Do you sell the part of contract crop to the other buyer/market, every year? 1. Yes;
2. No

15. According to you, what proportion of contract farmers in your village sell their contract crop to other buyers? ___%

16. In general, how important do you think it is for you to honour the contract? (Show card)
1. Very important; 2. Important; 3. Not important;

17. If you were to violate the contract, what do you feel would be the consequences? [Allow farmer to articulate his/her thoughts, & if appropriate ask questions below to get specific answers as a follow-up]

1	Nothing	6	Fight with us
2	Stop contracting	7	Complaint to village leader
3	Warn us	8	They will lose faith in us
4	They will approach police	9	Will inform other companies
5	Will go to court	10	Others

18. Expectations on Uncertainty

I would like to learn about your expectations regarding yield & price of chip-grade potatoes/White onion. Based on your experience if and you were to contract with same firm for the similar season and follow same procedures and assuming general conditions, weather remain unchanged, what is the ...

Variable	Most likely expected?	Minimum value you expect?	Maximum value you expect?
Yield (kg/acre)			
Price (Rs./kg)			

19. What are the risks present for growing contract crop under contract/non-contract farming? (let the respondent speak & then probe for each attribute) (s)

1	Risk of poor quality seeds	4	Risk of firm not coming back to pick up the produce at harvest time
2	Yield risk	5	Risk of rejection of output
3	Price risks	6	Risk of delay in payment

Q. 20 to 22 only for contract growers

20. So far, did you have disputes with company in the past? 1. Yes (Show card); 2. No

	Attributes	Reason	Was it successfully resolved or not
1	Poor quality of seeds		
2	Poor quality of other inputs		
3	Late delivery of inputs		
4	Rejection of output		
5	Higher prices charged for inputs		
6	Payments		
7	Others		

21. In general, if the firm does not honour the contract, what would you do?

1	Nothing, powerless	5	Will lose faith in company
2	Demand Compensation	6	Stop contracting with this firm, contract with other firms
3	Complain to the local authorities /police	7	Give up growing contract crop
4	Will go court	8	others

22. What are the problems do you face in growing the contract crop & was it resolved? (Show card)

1	Lower price of output	7	Lack of flexibility
2	Poor quality of seeds	8	Unfavorable terms of transactions

3	Rejection of output	9	Fixed rate
4	Higher cost of inputs	10	Not enough assistance from firm
5	Late delivery of inputs	11	Land degradation
6	Late Payments	12	Others (Specify _____)

Ask Q. 23, only if there was break in contracting otherwise skip

23. There was a break in between year, what was the reason for the break?

1	Company did not offer the contract	4	Water issue
2	Losses with the contract	5	Personal reasons
3	Pest issue	6	

24. Based on your experience of contract farming, are you:

Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very Satisfied
1	2	3	4	5

25. Any suggestions for improving the contract farming scheme?

26. If you were not contracting for potato/white onion with the firm this season, what would be your next best option?

a. Grow contract crop for another company or open market (specify name of company)

b. _____ Another crop instead of contract crop _____

27. Would you grow the contract crop in the next season? 1. Yes ; (Continue) 2. No; 3. Not decided

28. Would you grow: 1) With the same firm; 2) with another firm or open market

Ask Q29, 30 for ACF only:

29. What were the reasons which led you to exit from the contract farming? (Category 2 farmers; show card)

1	Lower price in contract	9	change in mindset
2	Lower yield	10	Higher cost of seeds
3	Company did not offered the contract	11	Soil quality deteriorated
4	Rejection for output/strict quality norms	12	Not procurement of whole produce
5	Higher cost of cultivation	13	Personal reasons (like death in the family)
6	Improper payment	14	Lack of transparency
7	Late payment	15	Losses in contract
8	Longer duration crop	16	

30. Would you like to join contract farming again? 1. Yes; 2. No; 3. Not decided

Ask Q31, 32 for never participated contract farmer

31. Have you ever tried growing V12 onion? 1. Yes; (What happened: _____) 2. No;

32. Why you did never participated in contract farming? (show card)

1	Lower price in contract	7	Late payment
2	Lower yield	8	Inflexibility
3	Unfavorable terms of transactions	9	Higher price of inputs
4	Rejection for output/strict quality norms	10	Heard about impact on fertility of soil
5	Lack of trust in the company	11	Longer duration crop
6	Lack of transparency in contract	13	Others (_____)

33. Credit Constraint Section (Applicable to all categories)

33.1 Did you or household receive any loan in the past 12 months?

a. Yes (Continue) (No. of Loans: _____); b. No (Go to Section 9.2)

33.2 Borrowers Section

1	List of loans	1	2	3
2	Name of the lender			
3	Type of the lender			
	Formal	Semiformal	Informal	
	1 Commercial Bank	3 Cooperative	6	Money lender
	2 RRB	4 MFI/SHG	7	Input supplier
			8	Arthiya
			9	Relative/friend
		10	Grocery store	
4	What was the loan used for?			
	1 To buy inputs >>5		5	Education >>6
	2 To install perennial crops >>5		6	Consumption >>6
	3 To buy agricultural equipment/machinery>>6		7	Other _____
	4 Spending related to side business >>6			
5	For what crop did you request the loan?			
6	Would you have wanted a larger loan at the same interest rate? 1. Yes >> (constrained); 2. No >> (unconstrained)			

33.3 Non-Borrowers Section

- In the last 5 years, have you applied for a loan from bank/cooperative society and been rejected?
 - Yes (Constrained) (Continue);
 - No >> Go to 3
- Why the loan application got rejected? _____
- Currently, would a bank/cooperative society lend to you if you applied?
 - Yes (Continue);
 - No >> Go to 4
- Why did you not apply? _____

Unconstrained		Constrained	
1	Sufficient liquidity	4	long processing time, paper work
2	interest rate was too high,	5	Illiterate
3	no profitable investments	6	Demanding collateral
		7	Demanding bribery

- If you were certain that a bank/cooperative society would approve your application, would you apply?
 - Yes (Constrained);
 - No >> Continue;
- Why Not? _____

Unconstrained		Constrained	
1	Sufficient liquidity	4	long processing time, paper work
2	interest rate was too high,	5	illiterate
3	no profitable investments	7	Demanding bribery
		8	Demanding collateral

34 Locational Attributes

- Distance of the farmer's field from the nearest market for contract crop _____ metres
- Distance of the farmer's field from the nearest market for the alternate crop _____ metres
- House: 1.Kacha; 2. Pakka