

Contract Farming in Odisha: Prospects and Constraints

May 2011

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Study commissioned by :

Regional Centre for Development Cooperation (RCDC)
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www.rcdcindia.org, www.banajata.org

Supported by :

Misereor-KZE, Germany

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A NOTE FROM THE EDITOR

Contract farming is one of the illustrated examples of the impact of globalization and liberalized economic policy in the agriculture sector. While the farm sector is facing an identity crisis amidst growing dominance of the industrial sector, contract farming helped to create a new hope in this scenario. It established a link between the farm sector and the corporate sector too. This way it created new prospects for the agricultural sector, and added to the dignity of the farmer. However, the actual practice was often not so farmer-friendly. Rather it was an arrangement to best exploit the farmers' lands in the interest of the contracting agency. Innocence and ignorance of the farmers, absence of a strong farmer-security mechanism, and tactfully drafted legal papers favoured the other side very much. And the result was quite obvious; farmers suffering in many ways, long-term socio-economic and environmental threats perceived, and marginality of farmers getting increased. The situation was of major concern in tribal areas where, because of the legal restriction on transfer of tribal land to non-tribals, contract farming became an easy way to virtually enjoy the ownership of tribal land. It was in this backdrop that a survey was undertaken by RCDC in seven districts of the state in the year 2009-10. However, the survey data remained unanalyzed for a long time owing to some limitations. In October 2010 M/S. SERVICE was engaged as a consultant to analyse the data with feasible updation, and compile a report on the basis of the same. Although the SERVICE team revisited some of the survey areas, still a gap in communication remained for some part of the statistics as those involved in the original survey were no more associated with RCDC to clarify on the missing links. I am happy that despite such limitations the consultant has been able to meet the objective, and submit the desired report though, needless to say, it could have been a more complete one had the missing/confusing data would have been rectified. We hope that it will give the policy makers and other stakeholders some concrete idea about the ground realities in contract farming.

With more & more corporatization of the livelihood systems & their supporting channels, it has been rightly questioned as to whom the 2nd green revolution is to ultimately serve to. Because, in the name of another phase of green revolution the government seems to be directly or indirectly emphasising on systems or elements or channels that are under the dominant control of the corporate sector and multinational companies. Hybrid- and genetically modified crops are in the priority list, and so also

the high mechanization and chemical farming. Traditional seeds and traditional systems of farming including organic farming are cornered or ignored practically. Contract farming seems to have been perceived to be an essential part of this process (vide annexure-3). While hybridization & genetic modification impose a kind of passive ownership over the farmer, contract farming can impose a more direct ownership/control. Unfortunately, the present situation often puts the farmer in a rather contradictory position since he/she may find contract farming and all other liberalized systems of modern farming much more promising and convenient without realizing much the long term impacts. This is obviously because the policy in this country does not support much the conventional systems of livelihood including agriculture. Moreover, there has been differential attitude of the government for different regions of the country, often due to political reasons; and this is why Punjab, UP, and Maharashtra receive more attention than Odisha, Tripura, or Chhattisgarh. A brainstorming exercise for effecting a sustainable and farmer friendly policy as well as implementation mechanism is therefore needed to take steps before it is too late; and the present report is but one of the initiatives of RCDC contributing in that direction. We take this opportunity to announce that findings of this study will be published soon in the local language of our state so that the rural mass, particularly the farmers can understand the issues and make themselves alert.

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INTRODUCTION

Introduction:

The present era of globalization and liberalisation has witnessed significant changes in agriculture—the mainstay of Indian economy. These changes include cropping technology as well as cropping patterns. Export oriented products and processed food items occupy a vital position in the market these days. Such value added agricultural product needs heavy dose of costly inputs, improved crop varieties, and advanced technology to comply with the quality standards set by international organizations like WTO. Contract farming proves to be beneficial to and fulfills the desired demand of both farmers and companies. In India most of the farmers belong to small and marginal categories, and are found resource poor. At the same time the agro processing farms are lacking in possession of land for cultivation of high valued crops. That is why these companies come forward with contracts in providing such costly inputs, improved crop varieties and advanced technology to the resource poor farmers. Hence, contract farming has attained a greater place in today's agriculture and it continues to play a major role in commercializing it.

Contract farming system has old historical resonances, such as the infamous contracts enforced by indigo planters in eastern India during the early colonial period. But recent pattern of contract farming has been developed especially in the United States, where corporate penetration of agriculture is probably the most advanced. Agricultural trade globally is dominated by transnational corporations like Cargill, Archer Daniels Midland and Monsanto, which are increasingly involved at each stage of the agriculture system. These corporations achieve domination over the market through a combination of horizontal and vertical integration. This has increased the margins for the procuring and processing firms while at the same time reducing farm incomes and increasing the prices for the consumers. This explains the rising spread between retail prices and the prices received by farmers. The farmers really gain from agribusinesses which provide them huge and increased profits.

1.1. Contract Farming:

Contract farming arrangements of different types have existed in various parts of the country for centuries for both subsistence and commercial crops. The commercial crops like sugarcane, cotton, tea, coffee etc. have always involved some forms of contract farming. Even in the case of some fruit crops and fisheries, contract farming arrangements involving mainly the forward trading of commodities have been observed. However in the wake of economic liberalization, the concept of contract farming in which national or multinational companies enter into contracts for marketing of the horticultural produce and also provide technologies & capital to contract farmers has gained importance. According to this, bipartite agreements are made between the farmer and the company, and the latter contributes directly to the management of the farm through input supply as well as technical guidance and also markets the produce. The main features of this type of contract farming

are that selected crops are grown by farmers under a buy back agreement with an agency engaged in trading or processing. In such cases, the centralized processing and marketing agencies supply technology and resources, including planting materials and occasional crop supervision. Under such contracts the farmer assumes the production related risks while the price risk is transferred to the company. In some cases, the company also bears the production risk depending on the stage of crop growth at which the contract is made. If the contract is made at flowering or fruit bearing stage, the company bears the production risks also. In any case, the company bears the entire costs of transaction and marketing. It is this variant of contract farming which is said to be one of the ways by which small farmers can participate in the production of high value crops like fruits, vegetables, flowers etc. and benefit from market led growth.

Small farmers in India are generally capital starved and cannot make major investment in land improvement and modern inputs. Contract farming can fill up this gap by providing the farmers with quality inputs, technical guidance and management skills. Although the company deals only with the contract crop, the farmer's overall management skill may improve, thereby helping him to raise the yields of both contract and non-contract crops.

From the standpoint of corporate bodies farming reduces the supply risk, while the farmers enter into contractual arrangements with companies in order to minimize price risks. The company and the farmers enter into contracts to supply or purchase a specified quantum of the commodity at agreed prices. The agreed contract may be either formal or informal and may cover supply of inputs and marketing of output. By entering into contract, the company reduces the risk of non-availability of raw material and the farmer reduces the risk of market demand and prices of his produce. The inputs and services supplied by firms may include seeds, fertilizers, pesticides, credit, farm machinery, technical advice, extension etc., or may involve only the supply of hybrid seeds and marketing of produce.

Contract farming is becoming an increasingly important aspect of agribusiness, whether products are purchased by multinationals or by smaller companies. There are a few success stories on contract farming such as Pepsico India in respect of potato, tomato, groundnut and chili in Punjab, safflower in Madhya Pradesh, oil palm in Andhra Pradesh, seed production contracts for hybrids seed companies etc. which helped the growers in realization of better returns for their produce. Other success stories of contract farming are Amul and NDDDB for milk procurement, sugarcane cooperative in Maharashtra, and prawn-aqua culture in Andhra Pradesh. In our country this approach has considerable potential where small and marginal farmers can no longer be competitive without access to modern technologies and support. The contractual agreement with the farmer provides access to production services and credit as well as knowledge of new technology. Pricing arrangements can significantly reduce the risk and uncertainty of market place.

1.2. Rational for Contract Farming

Contract farming is one of the different governance mechanisms for transactions in agri-food chains. The use of contracts (either formal or informal) has become attractive to many agricultural producers worldwide because of benefits such as the assured market and access to support services. It is also a system of interest to buyers who are looking for assured supplies of produce for sale or for processing. Processors are among the most important users of contracts, as they wish to assure full utilization of their plant processing capacity. A key feature of contract farming is that it facilitates backward and forward market linkages that are the cornerstone of market-led, commercial agriculture. Well managed contract farming is considered as an effective approach to help solve many of the market linkage and access problems for small farmers.

1.3. Benefits of contract farming

The key benefits of contract farming are:

- Improved access to local markets
- Assured markets and prices (lower risks) especially for non traditional crops
- Assured and often higher returns
- Enhanced farmer access to production inputs, mechanization and transport services, and extension advice
- Assured quality and timeliness in delivery of farmers' products
- Improved local infrastructure, such as roads and irrigation facilities in sugar out grower areas, tea roads, dairy coolers/collection centers, etc.
- Lower transport costs, as coordinated and larger loads are planned, an especially important feature in the case of more dispersed producers.

1.5. Types of Contract Farming:

Contract farming is generally divided into two types i.e. Production Contract Farming and Marketing Contract Farming. The Production Contract Farming is again divided into two types that is Production Management Contract Farming and Resource Providing Contract Farming.

Market specific contracts are the predetermined agreement prior to the harvest season or harvest of the produce. The practice is prevailing mostly in India and forms the basis of the study. Generally this type of contract is signed in the initial stage of the cropping i.e. in seeding or planting with a binding that a farmer sells the produce to the firm in a particular set of conditions like pricing, quality etc. Here the buyer firm assures a market for farmer's produce. In such contracts farmers have control over the production process alone but the firm has full control over the marketing process.

1.6. Contract Farming and Rural Economy

The process of contract farming involves cultivating and harvesting for and on behalf of big business establishments or Government agencies and forwarding the produce at a pre-determined price. In return the contract farmers are offered high price against their farm produce. The role of contract farming in rural economy is becoming more and more important, since organized farming practice has become the need of the hour in the world of rapid industrialization. The rapid industrialization process in India has created shortage of farmland, which in turn has necessitated organized farming practice in India.

The process of contract farming in India involves scientific and optimum use of land and farm resources for maximum output of agriculture produce. Traditional agricultural methods for cultivation and harvesting of crops are common among small and marginal farmers. Today more and more corporate entities are taking interest in the business of contract farming in India. This has happened as a result of rapid growth of retail industry. The growth of retail industry in India has propelled the growth of farm retail in India, which caters fresh vegetables and fruits from the farms to the Indian mass.

The process of contract farming in India involves engaging rural Indian farmers for the cultivation of agricultural produce under strict government policies. The role of contract farming in Indian rural economy involves government and private participation along with the rural workers. Further, it engages a good number of farmers and other rural workers to discharge other agriculture related activities.

The institutes engaged for marketing agricultural products under contract marketing in India are;

- Karnataka State Agricultural Marketing Board
- Krishi Maratavahini
- Madhya Pradesh State Agricultural Marketing Board
- Maharashtra State Agricultural Marketing Board, Pune
- Meghalaya State Agricultural Marketing Board
- Odisha State Agricultural Marketing Board, Bhubaneswar
- Punjab State Marketing Board
- Rajasthan State Marketing Board
- AP Agricultural Marketing Board
- Domestic & Export Market Intelligence Cell
- Tamil Nadu Agricultural University and Agri Marketing Board
- HP State Agricultural Marketing Board

1.7. Crops in Contract Farming

Food grains like cereals, pulses, fruits, vegetables, spices, tea, coffee and tobacco now come under the purview of the contract farming. Though most of the cereals, pulses, vegetables and spices are being cultivated through contract farming, cereals like paddy, wheat and maize, vegetables like potato and tomato, spices like ginger and turmeric, oilseed like til , tea , coffee and tobacco are common in India and cultivated abundantly.

CONTRACT FARMING IN ODISHA

2. Contract farming scenario in Odisha

The farmers of Odisha have also entered into the arena of contract farming over the years. The inclination of the farmers towards instant cash and assured market has lured them for contract farming. This has resulted in more and more farmers entering into the process and utilizing their land for contract farming instead of traditional farming practices. The widespread practice of contract farming for jatropha, cotton, maize, rubber, lemongrass, groundnuts is indicating that Odisha is also in favor of contract farming.



Various MNCs are taking interest to invest their inputs in contract farming. The Textiles Division of Gujarat Heavy Chemicals Ltd. plans to go for organic cotton contract farming in Gujarat, Odisha and Madhya Pradesh in a big way. They aim to cover around 30,000 hectares under contract farming for organic cotton out of which 2000 hectares of land is chosen in Odisha. Similarly another company named Bilati (Odisha) Limited has purchased around 16 acres of land at Gopalpur village over which a portion (about 11 acre) is

utilized for nursery and the rest is utilised for construction of the processing plant. The Krishna Jatropha & Bio Diesel Project is also engaged in jatropha cultivation. The list is only indicative.

The state government has also given a green signal to contract farming. The Odisha government has decided to embark on contract farming for crucial crops like cotton and oilseeds from the year 2006-07. About 21,000 farmers from 30 districts had evinced interest to get involved in the arrangement. The Chief Minister of Odisha in his address cited an upcoming pilot project to test the viability of contract farming which was in the preliminary stage. The state government made a declaration to provide full-fledged permit for contract farming from the year 2007-08 based on the outcome of the pilot project.

The government has decided to encourage contract farming in cotton and has fixed a target of covering 60,000 hectares under such contract farming during 2007-08. To ensure remunerative price for cotton growers, it is decided to set up two additional *mandis* (market yards) in Ganjam and Gajapati districts.

With floriculture having tremendous potential in the state, the government has planned a *mandi* at Bhubaneswar. It was decided to take necessary steps to encourage organic farming in Phulbani district and aromatic rice in Koraput district. Women Self Help Groups are encouraged to undertake fishery activities.

The 2006-07 reports suggested also that measures to train farmers had been stepped up, over 23,000 farmers were trained and another 3.32 lakh farmers were targeted to be trained over the next four years. Cashew, mango and banana was to be promoted and targets for such plantations were fixed for 2007-08. Primary seed replacement, seed production and other measures in this regard were also discussed.

Since Odisha produces groundnut and til in large quantities, the state government proposes to sign an agreement with National Agricultural Marketing Federation of India (NAFED) to start contract farming in some identified areas.

By 2006-07, cotton was being grown in the state in 53,000 hectares, against the potential of 2-3 lakh hectares. Cotton is cultivated in Kalahandi, Koraput, Bolangir, Gajapati, Ganjam and Rayagada districts. Meanwhile, Ludhiana-based Nahar group and Coimbatore-based Super Spinning Mills had shown interest in contract farming in cotton in Odisha.

Moreover, the state government had requested Cotton Corporation of India to get involved in contract farming in 2,000 hectares of land in Rayagada and Kesinga areas of Kalahandi district. The state government was also mulling over similar arrangement in vegetable cultivation.

Contract farming is increasingly being presented as a solution for the problems of Indian agriculture by major international donor agencies, multinational companies and even the government. The argument behind this is that the private sector participation will be promoted through contract farming and allowing land leasing arrangements will augment technology transfer, capital inflow. This will also provide assured markets for crop production, especially of oilseeds, cotton and horticultural crops.

2.1 Study coverage

In order to know the prospects and constraints of contract farming in Odisha a study was conducted in seven districts of Odisha. The study covered 505 farming households. Care was taken to select samples from farmers those who are engaged in contract farming.

2.2. Ethnic Groups

Out of the total farmers surveyed more than 50% belong to scheduled tribe and 18.2% are of other backward caste. 15.4% of the total farmers surveyed belong to general caste and 12.1% to scheduled castes. This implies that most of the areas covered under contract farming are dominated by scheduled tribe farmers.

Table-1: Coverage by ethnic groups

District	SC	ST	OBC	General	Total
Bolangir	7	21	31	17	76
Gajapati	0	21	1	0	22
Koraput	1	28	5	18	52
Nuapada	13	50	24	12	99
Raygada	37	105	25	21	188
Nabrangpur	3	42	6	7	58
Kalahandi	0	7	0	3	10
Total	61(12.1)	274(54.3)	92(18.2)	78(15.4)	505(100)

Figures in Parentheses indicate % to total

2.3. Landholding status

A detailed analysis of the land holding status of the farmers was made. It is noteworthy to mention here that most (46.2%) of the farmers studied belong to small land holding category (2.5 to 5 acres) followed by medium and large farmers (31.5%). Only 5.3% of the farmers having less than one acre land holding engaged in contract farming. It is also pertinent to note here that nearly 4.5% of the household engaged in contract farming are having no land of their own. Most of the contract farming is confined to bigger holdings than smaller ones. The medium and large land holders occupies nearly 56% of the cultivable land among the farming household surveyed, while 37.9% of the same is occupied by farmers having landholding between 2.5 to 5 acres.

Table-2: Farmer by landholding status

District	Land less	0-1 Acre		1- 2.5Acre		2.6 - 5 Acre		Above 5 Acre	
	No. of HH	No. of HH	Area	No. of HH	Area	No. of HH	Area	No. of HH	Area
Bolangir	9	10	7.87	11	19.2	32	130.4	14	165
Gajapati	9	3	3	1	2	1	3	8	66.9
Koraput	1	7	6.35	11	22.3	14	56	19	137
Nuapada	1	2	2	6	6.5	65	280	25	197
Raygada	3	1	1	20	45.35	91	371.11	73	595
Nabrangpur	0	2	2	14	27.88	24	91.74	18	231.12
Kalahandi	0	2	2	4	8	4	12	0	0
Total	23	27	24.22	67	131.23	231	944.25	157	1392.02
	(4.5)	(5.3)	(0.1)	(13.4)	(5.2)	(46.2)	(37.9)	(31.5)	(55.9)

Figures in Parentheses indicate % to total

2.3. Testing of Soil

Considering the analysis of the status of soil testing before taking up contract farming it is revealed that very few farmers (only 1.6%) have done the same. The practice of using chemical fertilizer and pesticide without knowing the soil texture is leading the farmer to a point where the land is becoming infertile resulting in reduction in yield, as testified by most of the farmers.

Table 3: Soil testing status

Sl.No	District	Soil Tested	Soil not Tested
1	Bolangir	0	76
2	Gajpati	2	20
3	Koraput	1	52
4	Nuapada	0	99
5	Raygada	0	190
6	Nabrangpur	5	53
7	Kalahandi	0	10
	TOTAL	8	490

2.4. Cropping Pattern

Apart from the landless (4.5%), 2% of the farmers have used their land totally for contract farming especially for cash crops while more than three fourth of the total farmers are practicing paddy cultivation in rest of their land. Nearly 5% of the farmers use rest of their land for cultivation of pulses like black gram and green gram. A few farmers cultivate oilseed and vegetable in their land. It is deduced from the analysis that most of the land used for contract farming presently, was formerly used for cultivation of paddy, a staple food of the people.

Table-4: Farmers by cultivation of crop

Sl No	Name of the District	Paddy	Bittergourd	Ragi	Bajara	Black Gram	Maize	Green Gram	Other Vegetable	Tomato	Redgram
1	Bolangir	57	1	0	0	0	0	0	0	0	0
2	Gajpati	21	0	1	0	0	0	0	0	0	0
3	Koraput	24	0	1	3	0	0	0	0	0	1
4	Nuapada	41	0	0	0	44	0	13	0	0	0

5	Raygada	188	0	0	0	0	0	0	0	0	0
6	Nabrangpur	45	0	0	0	0	4	0	8	1	0
7	Kalahandi	5	0	0	0	0	0	0	3	1	0
Total		381	1	2	3	44	4	13	11	2	1

2.5 Contract farming

It is revealed from the study that more than two third of the farming households studied are involved in contract farming. However, the proportion of farmers engaged in contract farming is found to be high in Nuapada, Kalahandi and Rayagada district. This might be because the soil is conducive for cotton cultivation and traditional crops like paddy is not remunerative in black cotton soil as the yield rate is low.

Table-5: Farmers pursuing contract farming

District	Farmers in contract farming	Farmers not in contract farming	Total
Bolangir	28	48	76
Gajpati	04	18	22
Koraput	18	34	52
Nuapada	74	25	99
Raygada	180	08	188
Nabrangpur	28	30	58
Kalahandi	09	01	10
Total	341(68.2)	164(32.8)	505(100)

Figures in Parentheses indicate % to total

2.6 Cultivation of cash crop under contract farming

Cultivation of cotton, jatropha and maize is found to be more prevalent. While cotton and jatropha farmers are found in 4 districts out of the 7 studied districts, maize cultivation is found in 3 districts. Other cash crops like sunflower, lemon grass and cashew are area specific and found in lone districts. Out of the total farmers involved in contract farming studied nearly half are found to be engaged in jatropha cultivation.

The reason behind so many farmers engaged in Jatropha cultivation as cited by the farmers is low cost of cultivation, recurring source of income for more than 20 years and promotional incentive

provided by government in form of loan. A sizable proportion of farmers are cultivating maize(22.6%) and cotton(20.3%). The proportion of farmers engaged in lemon grass , sunflower and cashew is negligible.

Table-7: Farmers by cash crops:

Sl No	Name of the District	Cotton	Jatropha	Maize	Sun Flower	Lemon Grass	Cashe w	Total
1	Bolangir	25	03	01	00	00	00	28
2	Gajapati	00	04	00	00	00	00	04
3	Koraput	03	00	00	00	15	00	18
4	Nuapada	25	49	00	00	00	00	74
5	Raygada	16	115	49	00	00	00	180
6	Nabrangpur	00	00	27	00	00	01	28
7	Kalahandi	00	00	00	09	00	00	09
	Total	69 (20.3)	171 (49.9)	77 (22.6)	09 (2.6)	15 (4.3)	01 (0.3)	341 (100.)

Figures in Parentheses indicate % to total

2.8. Area under contract farming

The area under different cash crop in the study area depicted a picture that most of the land area is under cotton cultivation followed by maize and jatropha. Lemon grass is found to be cultivated in 46 acres of land, though it is pursued by only 15 farmers. This entails that the cultivation of lemon grass is mostly pursued by the farmers having large holdings. Estimation of per capita land area is found to be highest in case of cotton, i.e. 1.75 acre. While per capita maize cultivated area is calculated to be 1.03 acre, it is only 0.39 acre in case of jatropha. This is because jatropha is cultivated in patches and in ridges of the cultivable land and in the waste lands also.

Table-8: Cash crop by area

Sl.No	District	Cash crop Area (in Acre)						
		Cotton	Jatropha	Maize	Sun Flower	Lemon Grass	Tabaco	Cashew
	Bolangir	60	9	1	0	0	0	0
	Gajapati	0	2	0	0	0	0	0
	Koraput	3	0	0	0	46	1	0
	Nuapada	38	57	0	0	0	0	0
	Raygada	20	0	28	0	0	0	0

	Nabrangpur	0	0	50	0	0	0	2
	Kalahandi	0	0	0	10	0	0	0
	Total	121	68	79	10	46	01	02

2.9. Economics of contract farming

The cost of cultivation, gross income and net income from one acre of land for different cash crop is calculated and presented in Table -9. It is found that the net income from lemon grass is high in comparison to other crops. It is estimated to be Rs.15050(net) in one acre of land. But this crop is exclusively cultivated by the farmers in Koraput district who are having large land holdings. The farms/ companies find the district suitable because of the linkage with Andhra Pradesh market. However net income from cotton from one acre of land is estimated to be in the range of Rs.7045 to Rs.8565. This is cultivated by the farmers across the study area. Different companies have entered into contractual agreement with the farmers in these areas. Though gross return from maize cultivation is as good as cotton, the net income is very less because of high cost of cultivation. The return from jatropha cultivation is still to be accrued. The farmers are not very much confident of getting a sustainable income from the crop.

Table-9: Cost of cultivation and return from cash crops

Sl.No	District	Crop	Gross Cost (in Rs. Per Acre)	Gross Returns (in Rs. Per Acre)	Net Returns (in Rs. Per Acre)
1	Bolangir	Cotton	11145	18190	7045
		Jatropha	7840	0	0
		Maize	117	1600	1483
2	Gajpati	Jatropha	7925	0	0
3	Koraput	Cotton	10415	18755	7340
		Lemon Grass	6700	21750	15050
4	Nuapada	Cotton	12390	20955	8565
		Jatropha	7326	0	0
5	Raygada	Cotton	13910	21645	7735
		Maize	11524	12756	1232
6	Nabrangpur	Cashew	500	6000	5500
		Maize	10300	11500	1200
7	Kalahandi	Sun Flower	2755	4800	1045

2.10. Trend of income and Expenditure

The trend of income and expenditure in last three years of contract farming is calculated and presented in the table 10A, 10B and 10C. It shows an interesting trend. Though gross income has gone down over the years, net income has either gone up or is steady as there is comparative

reduction in cost of production. Reduction in gross income however implies a reduction in the yield and fluctuation in the price of the produce. The farmers blamed the former cause rather than the latter for reduction in income. Though there is a decline in the gross income over the years there is a steady rise in the income in Raygada and Nawarangpur districts. This is because of the increase in production of cashew, cotton and maize in these districts.

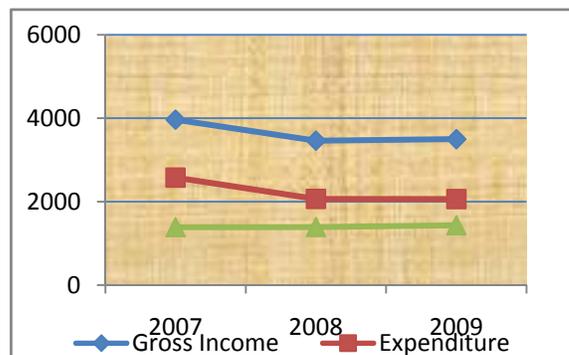


Table-10A: Gross income from cash crop Rs. in'000

SI No	District Year→↓	2007	2008	2009
1	Bolangir	544.8	597.0	637.2
2	Koraput	1783.0	1007.0	842.6
3	Nuapada	84.0	36.3	17.8
4	Raygada	1146.4	1226.0	1295
5	Nabarangpur	408.0	591.8	703.5
6	Kalahandi	0	4.8	3.0
	Total	3966.2	3462.9	3499.1

The cost of production has also registered a declining trend over the years. This is highly significant in case of Koraput and Nuapada district. This is due to lemon grass cultivation in Koraput and jatropha cultivation in Nuapada. In both the cases cost of cultivation is high in the initial year and very low in subsequent years. There has been nearly 50% reduction in the cost of production. The trend is just reverse in Nabarangpur, where the cost of production has almost doubled.

Table 10B: Cost of production of cash crops Rs. in'000

SI No	District Year→↓	2007	2008	2009
1	Bolangir	123.5	197.3	252.1
2	Koraput	1461.3	770.3	643.6
3	Nuapada	61.8	23.3	32.7
4	Raygada	720.7	802.5	754.6
5	Nabarangpur	209.6	273.5	380.2
6	Kalahandi	0	1.9	0.6
	Total	2576.9	2068.8	2063.8

The net income has shown an increasing trend over the years. Bolangir, Koraput and Nuapada have registered a decline in net income. It is noteworthy to mention here that even in Nuapada there was a loss in the year 2009. This is due to crop loss in cotton due to bad weather.

Table 10C: Net Income

SI No	District Year→↓	2007	2008	2009
1	Bolangir	421.3	399.7	385.1
2	Koraput	321.7	236.7	199
3	Nuapada	22.2	13	-14.9
4	Raygada	425.7	423.5	540.4
5	Nabrangpur	198.4	318.3	323.3
6	Kalahandi	0	2.9	2.4
	Total	1389.3	1394.1	1435.3

Contract farming changed life

Purna Chandra Rao, an old man of seventy-five years and a farmer by profession, lives with his wife in Vikrampur village of Gunpur block. He originally hails from Varshing village of Chaluamba Panchayat of Guntur district(Andhra Pradesh). He migrated to Odisha in 1995. He was cultivating cotton and chilly in his native place. He faced loss there and came to Odisha in search of land that suited cotton cultivation. He found the land in Gunupur block and shifted with his family. Now after 15 years he is known as one of the successful farmers and a big producer of cotton in Gunupur. He is the first man who started cotton cultivation in Gunpur. He did not leave his field in Andhra Pradesh but leased it out to local people. Now his son is cultivating the field there.

When he came to Odisha, lease rate of land was comparatively cheap. He took 30 acres of land on lease @ Rs.500 per acre and started cotton cultivation from which he earned huge profit. Then slowly he expanded his cotton cultivation. In the year 2006, he took 70 acres of land on lease for three years, 35 acres in Reguda and other 35 acres in Vikrampur. But he incurred a drastic loss in Reguda as the land was not suitable for the cultivation. He directly sells the produce to Cotton Corporation of India(CCI), and never depends on the contractor or middleman. The CCI, Odisha has fixed the rate of cotton at Rs.3000.00/- per quintal. He has not signed any contractual agreement with them as he has hope on them as an old seller.

Now he is old and unable to carry out such a strenuous job. He has reduced the operation to 8 acres. Apart from this he is now busy in maintaining a farm house where he has planted lemon in 3 acres, teak in 4 acres and other fruit plants like papaya, coconut, guava, mango etc. alongwith many kinds of flowers too. The land in which farm house is made actually belongs to another person, who is living in Hyderabad. He is maintaining the land properly from which he gets much satisfaction. He said that whenever he will face drastic loss again in Odisha, the possibility of which is very low, he will go back to his state.

2.11. Farmers' Perception

The perceptions of the farmers were studied on both pros and cons of the contract farming and presented in the tables below. Farmers were probed regarding sustainability of income, transport and processing facility, indebtedness and increase in yield.

An enquiry into sustainability of income revealed that less than one fifth of the farmers see contract farming as a viable source of income in future. More than 80% of the farmers have doubt on the sustainability of income from the process. They said that as the process is driven mostly by market forces, a fluctuation in market will shatter the whole economy. They also argued that no coping mechanism is in place to face such a situation in future, if it happens.

Table 11: Sustainable income

Sl No	District	Yes	No
1	Bolangir	15	61
2	Gajapati	1	2
3	Koraput	1	20
4	Nuapada	4	95
5	Raygada	62	126
6	Nabrangpur	0	58
7	Kalahandi	1	8
	Total	84	370

Facilities for transport and processing are still in an infancy stage and need development. Nearly 78% of the people confirmed the statement and said that there is no adequate transport and processing facility in the area. This is a major reason of produce not fetching higher price in the market.

Table12: Transport and processing facility

SI No	District	Yes	No
1	Bolangir	1	75
2	Gajpati	0	3
3	Koraput	11	8
4	Nuapada	1	98
5	Raygada	54	135
6	Nabrangpur	33	25
7	Kalahandi	1	8
	Total	101	352

More than 30% of the farmers have received credit from some or other sources. The banking institutions have come forward to provide loan for cultivation of cash crops. However, the process is leaving many of the farmers in debt trap.

Table13: Credit for commercial crops

SI No	District	Yes	No
1	Bolangir	15	61
2	Gajpati	2	1
3	Koraput	20	3
4	Nuapada	0	99
5	Raygada	39	149
6	Nabrangpur	30	28
7	Kalahandi	0	9
	Total	106	250

A probe into the fact that if there is a possibility of increase in the yield, revealed an interesting picture. Nearly two third farmers are still hopeful for an enhanced production. The cotton farmers were very much affirmative.

Table-14: Possibility of increase in yield

District	Yes	No
Bolangir	14	2
Gajpati	1	19
Koraput	15	3
Nuapada	71	28
Raygada	23	1

Nabrangpur	38	20
Kalahandi	0	0
Total	162	73

2.12. Impact of Contract Farming

The impact of contract farming on household income is calculated and presented in Table15-A and 15-B. It is observed that the cash flow has increased having a direct bearing on the household income. There has been a shift in the household from lower range. The number of households in the range of annual income less than Rs.5000 has declined to one third. This implies there has been an increase in the income of two third households in the same range to upper range after taking up contract farming. The number of households in the income range of Rs.5000 to Rs. 10000 has almost doubled over the years. There has been a 30% increase in the range of Rs.10001 to Rs.20000 and 50% increase in the range of Rs. 20000 to Rs40000. It is noteworthy to mention here that the annual income of 7 farmers has crossed Rs.40000. It is evident from the analysis that immediate cash flow from contract farming has helped in increasing the household income

Table15A : HHs by income(in Rs.) range (Before contract farming)

District	Below 5000	5000-10000	10001- 20000	20001 - 40000
Bolangir	8	4	5	9
Koraput	4	1	6	6
Nuapada	55	15	21	4
Raygada	16	2	1	0
Nabrangpur	2	5	7	2
Kalahandi	10	0	0	0
Total	95	27	40	21

Table15B: HHs by income(in Rs.) range (After contract farming)

District	Below 5000	5000-10000	10001- 20000	20001 - 40000	Above 40000
Bolangir	2	5	8	11	0
Koraput	1	3	4	5	4
Nuapada	23	34	29	9	0
Raygada	2	9	6	2	0
Nabrangpur	1	3	4	5	3
Kalahandi	3	5	2	0	0
Total	32	59	53	32	7

Ushering into a new horizon: story of a contract farmer

Nila Sabar is a contract farmer from Bayaguda village of Gadiyakhil Panchayat in Gunpur Block. He belongs to the Scheduled Tribe group. He has been cultivating cotton crops since the last thirteen years in seven acres of land, out of which three acres are his own land and the rest are on lease at the rate of Rs.1000.00 per acre. He is also cultivating paddy in two acres of land. His total expenditure in cotton cultivation last year was Rs.107300.00. The contractor provided the fertilizers and pesticides which is included in the cost. He used to take loan from the Bank for incurring the cost of cultivation. He produces nearly 13 to 15 quintals per acre in comparison to the standard production of 8 to 10 quintals per acres. He gets Rs. 2680.00 per quintal while the rate provided by CCI is Rs. 3000.00/- per Quintal.

Nila Sabar is very happy with this cotton farming. According to him, cotton is one of the cash earning crops and the chances of facing loss in cultivation are very less. The only risk here is untimely rainfall. Even if the sometimes it is not profitable, still the farmer at least gets back his investment.

Nila has changed his earlier cultivation practices from arhar dal to cotton. He said the risk is much more in arhar dal production. There is a readymade market for cotton. He gives the produce to the middle man /contractor instead of giving it in CCI. This is to avoid the transportation cost. But in the process, instead of losing Rs. 3000 to 4000.00 for one time transportation cost, he loses Rs. 33,600.00/- which he has not calculated.

He said that the dose of fertilizer in the field is increasing every year to get the same amount of production. This implies that the land productivity is declining and thereby raising the production cost. He also said that the invasion of weeds is increasing every year in the field.

Immediate cash income and hassle free marketing of cotton has allured him to continue the cultivation. Unaware of the future production, he puts faith on the cultivation as it provided him improved economic as well as social status.

61% of the farmers expressed that there has been a change in the cropping pattern. Traditional pattern have been changed after the induction of contract farming. Nearly 9% of the farmers told that the cropping pattern has taken a 'U' turn after the introduction of contract farming. However, nearly 30% of the farmers expressed that the change in the cropping pattern is at moderate level.(Table16)

Table16: Change in cropping pattern

District	Very High	High	Moderate	Low	Very Low
Bolangir	8	44	23	0	0
Gajapati	3	11	8	0	0
Koraput	5	32	15	0	0
Nuapada	10	60	29	0	0
Raygada	18	116	54	0	0
Nabrangpur	1	37	16	0	0
Kalahandi	1	6	3	0	0
Total	46	306	148	0	0

More than four fifth of the farmers studied expressed their concern over degradation of environment after taking up contract farming. While 20% expressed the severity of the concern, 40% of them reiterated that that the impact is high and needs to be checked.

Table17: Impact on environment

District	Very High	High	Moderate	Low	Very Low
Bolangir	16	29	15	7	8
Gajapati	5	8	4	3	2
Koraput	10	22	10	5	5
Nuapada	19	40	20	10	10
Raygada	37	75	39	17	20
Nabrangpur	12	24	12	5	6
Kalahandi	3	3	2	1	1
Total	102	201	102	48	52

The impact on ground water level is also posed as a concern by 90% of the farmers out of which 30% said it is very serious.

Table18: Impact on water table

District	Very High	High	Moderate	Low	Very Low
Bolangir	0	23	45	7	0
Gajapati	0	7	13	2	0
Koraput	0	15	32	5	0
Nuapada	0	30	59	10	0
Raygada	0	57	112	19	0
Nabrangpur	0	17	35	6	0
Kalahandi	0	3	6	1	0
Total	0	152	302	50	0

Probing into the coping mechanism to be adopted, the farmers told the mechanism like applying vermi compost, minimum use of chemical fertilizer, regular testing of soil and water table and quality might reduce the risk of declining of productivity.

Table19: Suggestive Mitigation Measures:

District	Applying vermi compost	Minimum use of Chemical fertilizers	Regular testing of soil	Environment protection Measures	Regular testing of Water table
Bolangir	22	30	23	76	76
Gajapati	4	6	2	22	22
Koraput	18	19	12	52	52
Nuapada	30	39	30	99	99
Raygada	56	76	56	188	188
Nabrangpur	17	24	17	58	58
Kalahandi	3	4	3	10	10
Total	150 (30.0)	198(39.6)	143(28.6)	505(100.0)	505(100.0)

POLICY GOVERNING CONTRACT FARMING

No clear cut national policy in India has emerged so far to back up the system though some interest has been expressed by Central Government and some of the states to formulate laws to govern the contracting agreement. The Government of India's national agricultural policy envisages that private sector participation will be promoted through contract farming and land leasing arrangements to allow accelerated technology transfer, capital in flow and assured market for crop production, especially of bio oil seeds, cotton, and horticultural crops. So some plans were made to formulize the arrangements in respect of pricing, legalities, pledge financing, ware housing and the forward & future market.

The Acts and Rules that govern the process of contract farming in Indian rural economy are as follows -

- Agricultural Produce (Grading and Marking) Act, 1937 as amended in 1986.
- Agricultural Produce Grading and Marking Act, 1937
- Schedule Appended to AP (G&M) Act 1937
- General Grading and Marking Rules, 1988
- Commodity Grading and Marking Rules
- List of commodities whose Agmark Grade Standards have been covered under AP (G&M) Act 1937
- Manual on Standards of Paddy
- Manual on Standards of Wheat
- Manual on Standards of Maize
- Manual on Standards of Mustard and Rapeseed

3.1. Policy Issues

Contract farming can be developed as a pro- poor institution through appropriate policies and regulations. Though central and state government have taken a number of policy initiatives in this direction, some issues that are generic in nature merit more attention.

a. Promote farmers' organizations and other intermediaries:

An effective way to involve smallholders in contract farming is to encourage and facilitate them to organize them into cooperatives; self help groups or growers associations. Such organizational structures also improve their bargaining power vis-a- vis agribusiness firms and generate scale economies in acquisition of inputs, technology, services and information.

b. Promote competition:

The enactment of State Agricultural Produce Marketing Development & Regulation Act, 2003 by Government of India has created a level playing field for the private investment in agricultural markets, agribusiness and contract farming. But its implementation has still remained poor and only few states have amended their existing Marketing Acts in true spirit and others have made only cosmetic changes. It is however cautioned that while implementing such policies the government should take appropriate measures to curb any tendency of regional monopoly and collusive oligopoly.

c. Evolve mechanisms for resolution of conflicts:

The Agricultural Produce Marketing Development & Regulation Act, 2003 outlines provisions for regulating contract farming to protect interest of both firms and farmers. However, one of the provisions that merit attention is the mechanisms for dispute resolution. Considering lengthy legal procedures, the Act provides that any dispute between the firm and the farmer should be mutually resolved or settled by the market committee with which the contract farming scheme is registered. However many of the contract farming schemes remain unregistered and are not legally vetted at present. Nevertheless, the need for some judicial or quasi judicial body for resolution of disputes cannot be ignored as contract farming becomes widespread; and it is good to know that a mechanism to that effect has been introduced in Odisha.

d. Develop grades and standards:

Price and quality of output are two important factors that can make or mar contract farming. The need for developing effective grades and standards cannot be ignored with rising demand for safe and quality foods in both domestic and international markets.

e. Improve farmers' capacity to invest and cope with risks:

Two important factors in scaling out/up of contract farming relate to credit and insurance. An overwhelming majority of small holders lack capacity to invest in high value agriculture and are risk averse. In India although formal rural credit system is fairly well developed, institutions for agricultural insurance remain under-developed. It is therefore imperative to enhance farmers' access to financial institutions using the string of contract farming or otherwise.

In view of several observed and perceived benefits of contract farming, such arrangements need to be encouraged widely, for different commodities in different regions. The limited commodity specific experience of contract farming in the country shows that the spread and success of contract farming would require a number of conditions to be met.

Recent policy changes provide concrete proof of the paradigm shift with respect to the agrobiodiversity scenario in the state. Some of the laws passed recently by the state government have encouraged entry of private markets into the agriculture sector in Odisha. *The Orissa Agriculture Produce Marketing Act* and the recently drafted Rules advocate for opening up of the already vulnerable Agriculture sector for private players through establishment of “Private Markets” and introduction of practice like “Contract Farming”. As evident from the Act and the Rule such kind of practice requires the Producer/Farmer to enter into a trade agreement with the Sponsor (Private Companies) which demands farmers to agree to adopt instructions/practices in respect of land preparation, nursery, fertilization, pest management, irrigation, harvesting, and any other practices as suggested by the sponsor (private companies).

The present the Agricultural Produce Marketing Committee (APMC) Act restricts the farmer from entering into direct contract with any processor/ manufacturer/ bulk processor as the produce is required to be canalized through regulated market. In the changed scenario, the producer should be free to enter into forward contract whether inside or outside the regulated market area. This will promote contract marketing between the producers and processing factories with gains both to the producer through improved competitiveness and the consumers by way of reasonable prices. It is necessary to incorporate provision in the APMC Act to specifically allow setting up of registered contract farming programs by processing or marketing firms. The APMC within whose jurisdiction the area covered by contract farming agreement lies, should record the contract farming agreements and act as a protector of producer’s and processor’s interests with due legal support in its jurisdiction. Consequent upon recording of such agreements by the APMC, the produce covered by the agreement should be allowed to move freely from the farmers’ field to any destination in the country or abroad without the necessity of going through licensed traders and regulated markets. Since a contract farming program requires the company to undertake research and extension activities and bear the marketing risk for the benefit of farmers, incidence of taxes on the procurement of agricultural or horticultural produce under the program by way of market fee, cess, duties, taxes etc., should as a promotional measure be waived or minimized.

The planned steps to resolve the issues are:

- Recording all contractual activities, ideally at the Panchayat level
- Putting in place an arbitration mechanism
- Setting up farmers Association to improve the farmer’s bargaining power with the agribusiness firms
- Amending the restrictive State Agricultural Produce Marketing Regulation Act (APMC) and the Essential Commodities Act
- Tax breaks on procurement
- Planning new insurance schemes like income protection insurance prevalent in US.

The Government has circulated a model Act to replace the APMC and several states are in the process of enacting suitable legislation as convenient. The model Act includes suggested provisions for a Contract Farming agreement as follows:

- All Contract Farming Agreement should be registered with the market Committee or a prescribed officer.
- Disputes are to be referred to a prescribed Authority and are to be resolved within 30 days.
- An Appellate Authority will entertain appeals and will decide such cases within 30 days.
- The decision of the prescribed Appellate Authority shall have the force of a decree of the civil court.
- All disputes will be resolved only in the above manner and not by any other Court of Law.
- No market fee will be levied on direct procurement.
- Quality of the supply has to be clearly stipulated plus its sampling procedure and Contract Farming agreement must give a description of the farm land covered, and crop delivery arrangements. Optional features include cultivation/input specification to be followed, insurance, nature of support services to be provided, farmer's management forum and monitoring of quality and yields.

ISSUES AND CONCERNS

4.1. Advantages and disadvantages of Contract Farming:

The vertical coordination involved in contract farming has both advantages and disadvantages to both the contractual parties, i.e. the farmer and the company. The advantages of such a system is often more pronounced for a state like Odisha where agriculture is predominant and small farmers are large in number for the reason that contract companies provide with necessary inputs and extension services. It is however not free from problems. The benefits that farmers and the companies can accrue along with the constraints they face in entering into contract.

A. Contract farming to the farmers

Advantages

- Inputs and production service provided to the farmers
- New technologies and new skills made available to the farmers
- Linking with new market to the small farmers

Disadvantages

- Manipulation of quotas by the contractors
- Sponsoring companies may be unreliable or exploit a monopoly position
- The staff of sponsoring organization may be corrupt, particularly in the allocation of quotas
- Farmers may become indebted because of production problems and excessive advances
- Gradation is made by the company

For a farmer the advantage largely lies with the fact that he gets access to inputs and extension services which otherwise would not been easily available to him. One of the most attractive benefits for the farmer is linkage which he gets with credit, since farmers use the contract agreement as collateral to arrange the credit with a commercial bank in order to fund inputs. Farmers do not have to search for and negotiate with local and international buyers since project sponsors usually organize transport for their crops normally from their farm gate. But at the same time, a farmer while entering into contract of growing new crops should be ready to bear the production risk of the quality and also market prices in some cases, risk of handling advanced technology which he usually is not acquainted with, manipulation of quotas by the companies in case the market is not favourable, and risk of indebtedness with the production problems.

In course of our field interventions & study we came across a number of examples of betrayal to poor farmers. One such example was that of Ulaka Ramanna of Gulmiguda village in the Nilabadi GP of Bandhugaon block, Koraput district. Compelled by sudden need of money for medical expenses Ulaka had to mortgage his 6 acres land only for Rs.3000. A retired government official Rao however proposed him to pay Rs.6000 per annum if he allowed him for farming in that land. Ulaka found the offer attractive though there was no formal or written agreement to that effect, and allowed Rao to use that land. Rao started with a banana plantation which turned out to be a successful business, but he did not pay the agreed amount in the second year. Even this betrayal continued in the third year. Finally, with RCDC's interventions he returned the land to Ulaka though it is another matter that the latter did not find it comfortable to continue the banana farming there.

Jatropha farmers- hopes shattered

Gumma Block of Gajapati district, which consists of nineteen Gram Panchayats is one of the dwelling places for a primitive tribe known as Lanjia Saura. For accessing of resource, they solely depend upon the forest and land. Their main stay is agriculture. They generally depend upon forest collection and agriculture since time immemorial. Their common food is rice and ragi, which gives enough strength to work. Linga is a village consisting of fifty five household in Taraba Panchayat of Gumma Block. This is a full-fledged tribal village. They have their own dialect and own culture. They are hard working and innocent.

Taking advantage of their innocence, middle men and marketing companies are now entering there and manipulating the people to change their attitude from traditional farming to commercial farming. Though not entirely but many adivasi farmers are now attracted towards commercial cultivation like cashew, rubber, maize, jatropha, karanja, sugarcane, etc. Some of these plants are used for Bio fuel such as jatropha, karanja, neem, sugarcane and maize. People instead of cultivating rice and other millets are cultivating jatropha in their land. They do not even know the name for jatropha; for some people it is "tel gach"(oil plant), for some others "diesel gachha"(diesel plant) and in Saura dialect it is "rugade". It is directly threatening their food and livelihood which they do not realize now but will realize surely very soon. The Forest Right Act promulgated to ensure the rights of traditional forest dwellers like these people also speaks of conservation of forest & biodiversity, but ironically some of them seem to prefer cutting the forest for planting cash crops like rubber, cashew, etc..

This is a small case study of a Saura farmer named Ayub Mandal, a middle aged man living with his wife and four children. He has eight acres of cultivable land, where since a long time he has been cultivating paddy, ragi, black gram, and green gram, etc. However, since last year he has planted rugade, i.e. jatropha in 2 acres of land. He was facilitated by a company called Orissa Nature Care Council Pvt. Ltd which is said to have promised that:

- *It is easy to cultivate as once it is planted, after three years it will provide fruit for forty years*

Contract Farming in Odisha: Prospects & Constraints

- *No fencing is required since the crop is non- graze able by animals.*
- *Water requirement is less.*
- *There is more profit from jatropha in comparison to other crops like ragi, small millets, moong, biri, arhar, etc for which there is no assured income.*
- *There is loan facility which will be provided if proper care is taken.*

All the above were conveyed by Ayub which is mentioned in ONCC profile also. These promises attracted not only him but also another six farmers to go for jatropha cultivation. He had to submit the photo copy of the ownership record of land to the company followed by a deposit of Rs.1000.00 for 500 plants. But no agreement paper was signed between the contractor and the farmer. According to the instruction of the company he planted saplings and waited for one year to see the result. However, the result was the plants were damaged due to pest attack and the quality of the plants also deteriorated. The company had promised for fortnightly monitoring and guidance but now there is no sign of anybody from the contractor's side. This made Ayub feel frustrated and hopeless. In anger he uprooted the plants and has again sown ragi and kolatha.

It is calculated that from 2 acres of land he generally reaps 400 kg of ragi whose value is Rs.14000.00 @ 35.00/- per kg, and 100 kg of kolatha whose value is 2400.00/- @ 24.00/- per kg. He incurred this amount of loss in one year and if it will be calculated for 3 years the loss will be triple. As we know that millet is called as "poor man's food" and "coarse grain" which can grow in non irrigated rain fed area as it requires less water to grow, is resistant to drought and is a short duration crop. Moreover, jatropha should be cultivated in uncultivable waste land but here it is seen that farmers have cultivated it in cultivable land.

A similar case is found in Taraba village of Guma block where Junas Gomang, a farmer belonging to Saura tribe was motivated by the same contractor. He has planted jatropha plants not once but twice after the first sown plants were damaged. But again these plants were found in deteriorated condition which has left him frustrated. Because of this his mother rebuked him. So he is not only facing crop loss but also family conflict. He has planted jatropha in 3 acres of land after cutting the cashew plants, which are one of the most profitable plants. When the farmer was asked to say the Company's name he could not remember it. Nobody from the Company is in touch with him. In the hope of getting loan facility and market, he was motivated to reap jatropha fruits. But overall he faced a big loss.

Ayub is not the only one. Many other farmers got frustrated after entering into jatropha cultivation. Directly and indirectly it is hitting their livelihood and food security. The innocent tribal people who do not know even the fruits name and its use got ready to enter into a verbal contract with the contractor whose name they do not remember.

B. Contract farming to the company

Advantages

- Overcomes land constraint when working with the small farmers.
- Production is more reliable than open market purchases and sponsoring company faces less risk by not being responsible for production.
- More consistent quality can be obtained than if purchases were made in the open market.

Disadvantages

- There can be extra contractual marketing i.e. farmers can sell outside the contract.
- Farmers may divert inputs supplied on credit to other purposes, thereby reducing yields.
- Social and cultural constraints may affect farmer's ability to produce to manager's specifications.

The advantages for the companies in entering into contract are quite imperative. Corporates who have been involved largely in agribusiness through plantation, often face the problem of land ceiling by the government constraining a large scale operation. It is therefore more politically acceptable for a sponsor to involve smallholder farmers in production rather than to operate plantation. Similarly, working with contracted farmers enables sponsors to share the risk of production failure due to poor weather, diseases etc. In addition, obtaining raw materials through contractual agreement is more reliable than making purchases in the open market. The problems the company face are largely in the form of rigid social factors, extra contractual sale of produce by the farmers to the third party and the diversion of inputs to other uses than to which it is intended to.

4.2. Issues and concerns

As in any other form of contractual relationship, there are potential disadvantages and risks associated with contract farming also. Common contractual problems include farmer sales to a different buyer (side selling or extra-contractual marketing), a company's refusal to buy products at the agreed prices, or the downgrading of produce quality by the buyer. Side selling by farmers to



competing buyers is perhaps the greatest problem constraining the growth of contract farming. Contractors also may default by failing to pay agreed prices or by buying less than the pre-agreed quantities.

Another concern about contract farming arrangements is the potential for buyers to take advantage of farmers. Buying firms, which are

invariably more powerful than farmers, may use their bargaining clout to their financial advantage. Indeed, if farmers are not well organized or where there are few alternative buyers for the crop or it is not easy to change the crop, there is a danger that farmers may have an unfair deal. Tactics sometimes used are changing pre-agreed standards, down grading crops on delivery so offering lower prices, or over-pricing for inputs and transport provided. Strengthening farmer organizations to better access appropriate services such as credit, extension services and market information and improving their contract negotiating skills can redress the issue of exploitation of farmers and poorly formulated contracts and their enforcement.

Despite the typical problems listed above, contractual arrangements are gaining popularity as they are being used more frequently in agriculture worldwide.

1. Soil fertility concerns:

Mostly the crops cultivated under contract farming arrangements are generally of above-the-average quality, sometimes of export quality too. Due to heavy demand in the processed foods in western and other countries, crops suitable for such processed foods are grown under contract arrangements. The quality standards are set high for these products and to comply with high standards and to maximize output heavy dose of fertilizers, pesticides and insecticides are applied in the field which leads to deterioration in soil quality. High value crops need changes in cropping technologies. This leads to change in the cultural practices in the field. Repeated cultural operations like ploughing, weeding and watering leads to over exploitation of land and soil erosion ultimately occurs. Soil erosion again leads to depletion in soil fertility.

2. Environmental issues:

Due to over use of inorganic fertilizers and pesticides in the fields under contract cultivation of crops the environment gets disturbed which ultimately leads to air-, soil- and water pollution.

Bio-diversity issues

Despite being the mainstay of the economy and the main source of livelihood for the people, agriculture has failed to meet the economic requirement of the people depending upon it. Among the various reasons of this failure is the gradual shift marked in the trend of agriculture which has undergone a transformation from *low cost, traditionally evolved, and sustainable multi-cropping to artificially induced, high cost, externally dependent unsustainable mono-cropping*. Such *unsustainable shift* in the agriculture sector can be attributed to development of a *perspective* that considers conservation of agricultural biodiversity as anathema to the *dominant resource exploitative development paradigm* which focuses on a *process* that lays emphasis on short term maximization of returns from agriculture at the cost of the rich agro biodiversity. Dominance of such perspective does not augur well for the agro-biodiversity in the state.

The government seems to have entirely ignored these worrying facts about the agriculture biodiversity and has moved ahead with its programs to usher in “privatization of agriculture” in the state. Taking advantage of the government support private players have already started promoting monoculture of cash crops like jatropha and cotton in different parts of the state. Promotion of cash crops, which is undermining the already fragile and vulnerable agricultural biodiversity, has reportedly led to an increase in the instance of poverty and food insecurity because cash crop farming has increased the dependency of the farmers on external inputs, therefore their dependency on private agencies. Such farming has also increased the input cost and hence the credit requirement of farmers which in turn has led to these farmers falling into the debt trap.

In addition to that, *monstrous innovation* like introduction of Genetically Modified Organisms (GMOs) in the field of agriculture has posed another threat to the farmers, that of *contamination of genetic diversity* which has got a direct impact not only on Agro- Biodiversity and related issues like food security but also on environment and human health. After having spread their tentacles across the world and in India, Genetically Modified Crops (GMOs), promoted by MNCs (Monsanto, Cargill) are now targeting farmers in Odisha.

3. Food security concerns:

Most of the crops grown under contract arrangements are cash crops which give more income to farmers but at the same time due to this profit motive food crops are being neglected. Even major food producing areas now are gradually moving towards non food crops under contract cultivation. With ever increasing population, need for food crops in the future will also increase. There is every possibility that contract farming might hamper the food security of the small farmers in future. Such *mindless privatization* which empowers the private companies to *control and manage* the agriculture sector is a threat for the already *fragile agriculture biodiversity* in the state. What is a cause of worry is the fact that *this fragile agriculture biodiversity supports an equally fragile food security of the people*. The food insecurity of the state stands at about 57 per cent of the state’s population according to the State Human Development Report. The same report, taking into account food availability, food access, and food absorption, represented by 19 indicators, put Odisha in the category of ‘severely food insecure’ regions.

4. Seed problems:

The seeds of generally modified crops to tackle pests, diseases and to get maximum output are sold by the MNCs. The seeds once used cannot be regenerated as is the case of BT cotton. In such case the farmers under contract cultivation of such genetically modified crops are dependent on MNCs for seeds and planting materials. Since all inputs are assured by firms involved in the contract farming, the cost of supplying such demanding inputs is deducted by these farms from the amount to be paid to the farmers. So farmers always remain dependent on external agencies.

5. Labour problems:

Gender based exploitation of labour persists in many areas. Some technically demanding crops are handled by young girls under the age of fourteen, like in the case of cross pollination in cotton cultivation. It is revealed from that girls more than the age group of fourteen are not allowed to do such that due to old belief and gender problem. Also these girls are asked to work more than standard hours of working. A huge advance payment of salary is made to the parents of these girls for such work. This occurs mainly in cotton contract farming.

6. Contract disputes:

There are no standard legal procedures in resolving the disputes arising under contract agreements. Most of the reported cases of disputes are from farmer's side. Also once these farmers get the confidence of producing such technically intensive crops and selling the same in open market they tend to break the contract with farms. Also the quality standards set by the farms result in contract disputes either by firm's side or by farmers.

7. Middle man's influence:

Most of the firms involved in contract arrangement with farmers have fixed middle men to procure the produce from the farmers. These middle men either on their own or joining hands with the firms often under-evaluate the quality of the harvest. Under contract arrangements payments are to be paid based on the quality standards. When the produce is under-evaluated by such middle men the farmer ultimately gets lower price for his produce.

SUGGESTIONS AND RECOMMENDATIONS

Based on the findings of the study following recommendations are made:

- A. Present provisions of institutional arrangement to record all contractual arrangements should be made effective. The Panchayat or Gram sabha, particularly in PESA areas or in case of Forest Right Holder communities, may be associated with this process. This will promote and strengthen confidence building between the parties and also help solve any dispute, arising out of violation of contract.
- B. The contract farming should have a provision for both forward and backward linkages. Unless both input supply and market for the produce are assured, small farmers will not be in a position to participate in contract farming.
- C. There should be bank finance to small and marginal farmers on easy terms. As the payment for contractual produce is made through the bank, the recovery of such loans will be easier.
- D. The contracts should be managed in a more transparent and participatory manner so that there is greater social consensus in handling contract violation from either side without getting involved in costly as well as lengthy process of litigation. Also the contract need to be drawn in a more comprehensive and flexible manner
- E. There should be a contract farmers association or cooperatives at the plant level which will improve their bargaining power vis a vis the company and promote equality of partnership for ensuring smooth functioning of any contract farming arrangement. In fact, contract farming may be more beneficial to the farmers if there is farmers' association or cooperative which can replace the role of middlemen or commission agents who are involved in marketing of the contract commodities on behalf of the company. The company representatives may also be a member of the executive committee of such cooperatives. In fact, cooperative or joint farming arrangement of small farmers should be encouraged to enable them to reap the advantages of both economies of scale as well as of contract farming.
- F. The most important thing for the sustainability of contract farming is the selection of appropriate plant genotype. Unless the plant material is of good quality and high yielding and less prone to pests and diseases, the contract farmers may lose confidence and discontinue the cultivation of contract crop in question.
- G. The proposed contract crop should have a distinct advantage in terms of relative yield and profit, which will provide higher income to the contract farmers on stable basis.
- H. In many parts of the country, agricultural tenancy is legally banned, although concealed tenancy exists. Tenants who do not enjoy security of tenure cannot participate in contract farming. Hence, legalization of tenancy would be a precondition for enabling the tenant farmers to benefit from contract farming. Although different forms of land tenants including

share-croppers can be adopted to maintain the contract farming, security of tenure would be necessary.

- I. As assured market for the farm produce motivates a farmer to enter into contract with a company, a similar market prospect should exist for the processed products of the company. Ultimately, it is the success of the company's product in national and or international market, which decides whether contract farming for any particular crop or commodity would sustain.
- J. The success of contract farming requires that there should be adequate infrastructure facilities of roads, public transport, telephones, postal services, stable power and water supplies, cold storage facilities, etc. The situations of gluts and shortages can be effectively managed only when such facilities are available. Therefore, the Government would have to provide the minimum necessary infrastructure facilities like roads, electricity, cold storage, and market yards. Moreover, public research and extension systems would have to be reoriented to cater to the needs of both contract and non-contract farming arrangements. Specifically, the interactive roles of public and private research would be important in developing appropriate crop varieties, cropping patterns and crop rotations in each region, based on agro-climatic considerations. Furthermore, the government has to create a conducive policy environment for encouraging national and international companies to promote contract farming by creating an appropriate legal, political and administrative system as well as necessary infrastructure.
- K. The government needs to ensure that contract farming, which is generally commodity specific and tends to promote monoculture, does not grow beyond proportion to destroy biodiversity and agricultural ecology. It may be necessary to provide necessary guidelines for land use planning in each region in order to prevent such eventualities.
- L. The Central Warehousing Corporation and the State Warehousing Corporations should evolve commercially acceptable quality standards in respect of various commodities in order to ensure quality maintenance of the stored goods over a sufficiently longer period of time. The Warehousing Corporations should enforce standards both for quality and quantity at the warehouses, for which required infrastructure as to the measurement of grades and standards need also to be put in place, so as to reduce disputes on account of quality and quantity standards, and to improve the credibility of the Warehouse Receipt. The Warehousing Corporations are also required to gear up appropriate market intelligence on the prices of various commodities linked with the grades/ standards.
- M. The Government of India is already considering Value Added Tax all over the country. The other barriers particularly, the high level of public intervention in the market need to be completely stopped or greatly liberalized in order to allow free flow of trade in agricultural commodity all over the country.
- N. A massive & effective awareness building campaign should be launched so as to educate the farmers regarding the rules, advantages, disadvantages, arbitration system, precautionary measures, and facilities like loan, etc. of contract farming.

- O. The concerned authority appointed by the government should effectively exercise the right to ask the parties to revise the terms of contract in case the same is found to be risky for the farmer.
- P. Agreements in vernacular language, particularly in Odia, should be given priority so that the local farmers can understand the terms of contract. To suite the other party, it can be made bilingual. Standard formats for farmer-friendly agreement should be designed and mandated by the government.
- Q. Liability of the contractor to environmental losses should be fixed by the government, and in case such losses occur, the penalty realized in a proportionately appropriate amount should be spent for restoring the concerned area, preferably through the local Palli sabha/ Gram sabha.
- R. Additional safeguarding rules for tribal areas should be made because contract farming is an easy way to exercise virtual ownership over tribal land by the non-tribals. Recent instances of Maoist- and like-minded organizations' attack in Narayanpatana area of Koraput district should be an eye opener for the government.
- S. For lands recognized under Forest Rights Act, contract farming if practically meaning virtual control of a person or agency other than the right-holder himself/herself, would be essentially against the spirit & mandate of the Act; so government should take precautionary measures in this context.
- T. Updated database of contract farmers alongwith other relevant details such as the area & crops under contract, contracting agency, etc. should be maintained at a state level and should be made public through an website.

CONCLUSION

Contract farming is one of the different governance mechanisms for transactions in agri- food chains. The use of contracts (either formal or informal) has become attractive to many agricultural producers worldwide because of benefits such as the assured market and access to support services. It is also of interest to buyers who are looking for assured supplies of produce for sale or for processing. Processors are among the most important users of contracts, as they wish to assure full utilization of their plant processing capacity. A key feature of contract farming is that it facilitates backward and forward market linkages that are the cornerstone of market-led, commercial agriculture. Well managed contract farming is considered as an effective approach to help solve many of the market linkage and access problems for small farmers.

In this present liberalized and globalised regime the corporate initiative has taken an active role in all sectors and in all spheres of economy. Agricultural sector has also taken a different shape coping with latest development. Corporate intervention in agriculture through contract farming arrangement is taking a lead role in linking the corporate firms and the farmers. Odisha has potential benefit in contract farming due to its diversified nature and comparative advantage in agriculture. The options available for Odisha to explore in contract farming are many. Successful contracts not only lie with integration of socio economic environment in which the farms operate but also with proper selection of crops. However, not all the crops are suited for contract farming. In Odisha, crops which are well suited for contract farming are horticultural crops including export oriented fruits and flowers, medicinal crops, cotton and oilseed crops, etc.. While producing such crops due care should be taken that it does not pose threat to our local food security and environment.

While the government is promoting private ventures in agricultural sector, it should equally be focused on ensuring effective safeguarding mechanisms against the possible adverse impacts of such ventures on local socio-economic conditions and environment. Unfortunately this latter part seems to be lagging behind. The legislators and civil society organizations alongwith farmers' bodies and agricultural institutions should adopt necessary policy advocacy measures so as to secure this.

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ANNEXURE-1

The Orissa Gazette

**EXTRAORDINARY
PUBLISHED BY AUTHORITY**

No. 660 CUTTACK, WEDNESDAY, MAY 17, 2006 /BAISAKHA 27 , 1928

**LAW DEPARTMENT
NOTIFICATION
The 17th May 2006**

No.6649/Legis. The following Act of the Orissa Legislative Assembly having been assented to by the Governor on the 12th May 2006 is hereby published for general information.

**ORISSA ACT 5 OF 2006
THE ORISSA AGRICULTURAL PRODUCE MARKETS
(AMENDMENT) ACT, 2005**

**AN ACT FURTHER TO AMEND THE ORISSA AGRICULTURAL
PRODUCE MARKETS ACT, 1956.**

Be it enacted by the Legislature of the State of Orissa in the Fifty-seventh Year of the Republic of India, as follows :—

1. (1) This Act may be called the Orissa Agricultural Produce Markets (Amendment) Act, 2006.
(2) It shall come into force on such date as the State Government may, by notification, appoint.
2. In the Orissa Agricultural Produce Markets Act, 1956 after chapter II the following chapters shall be inserted, namely :—

CHAPTER II A

ESTABLISHMENT OF PRIVATE MARKETS

6 A. (1) Notwithstanding anything contained in this Act or any other law for the time being in force, any person or body of persons like company registered under the Companies Act, 1956 or a co-operative society registered under the Orissa Co-operative Societies Act, 1962 or co-operative registered under the Orissa Self-Help Co-operatives Act, 2001, may, after obtaining a license from the State Government, establish a private market for the purpose of sale or purchase of any agricultural produce within such area as the State Government may, by notification, declare and subject to such conditions and restrictions as may be specified therein :

Provided that, no license shall be granted for the purpose of sale or purchase of common varieties of paddy and rice, and for the establishment of any private market within a radius of one kilometer from an existing Market Yard.

- (2) Any person or body of persons mentioned in sub-section (1) may apply to the State Government for grant of a license to establish a private market within the area notified under the said sub-section, in such form, in such manner and with such fees, as may be prescribed.
- (3) Subject to such conditions and restrictions as may be prescribed, the State Government may grant a license in the prescribed manner :

Provided that the license shall not be granted if the applicant,—

- (a) is a minor;
 - (b) is in arrear of dues payable under this Act or Rules or Byelaws made thereunder;
 - (c) has been convicted and sentenced by a court; or
 - (d) is disqualified for any other reasons as may be prescribed.
- (4) Every license granted under sub-section (3) shall remain valid for a period of three years from the date of its issue and it may be renewed, from time to time, for a further period of one year on payment of such fee, in such manner and on fulfillment of such conditions as may be prescribed.
 - (5) If the State Government refuse to grant or renew a license under this section, it shall record the reasons for such refusal in writing and communicate its order to the applicant.
 - (6) Every application made under this section shall be disposed of by the State Government, within a period of sixty days from the date of receipt of such application.

6 B. (1) The State Government may suspend or cancel the license if, —

- (a) the licensee has obtained the license by means of fraud or misrepresentation of facts;

- (b) the licensee or any servant or anyone acting on his behalf, has violated any of the terms and conditions of license;
 - (c) the licensee in combination with other licensee willfully commits any act or abstains from carrying his normal business in the market area, with an intention of obstructing, suspending or stopping the marketing of agricultural produce in the market and in consequence whereof the marketing of any such agricultural produce has been obstructed, suspended or stopped;
 - (d) the licensee has been adjudicated as an insolvent or is an undischarged insolvent; or
 - (e) the licensee incurs any disqualification, as may be prescribed.
- (2) Before passing orders under sub-section (1) the State Government shall intimate to the licensee the grounds on which it is proposed to pass such orders and give him a reasonable opportunity of showing cause against it.
- (3) The State Government may suspend the license pending the passing of an order for its cancellation under sub-section (1).
- (4) A copy of every order passed under sub-sections (1) and (3) shall be communicated to the licensee.

CHAPTER II-B

CONTRACT FARMING

- 6 C. In this chapter, unless the context otherwise requires,—
- (a) "Contract Farming" means farming by a person or a firm, registered under the Indian Partnership Act, 1932, or a company registered under the Companies Act, 1956 or a Co-operative society registered under the Orissa Cooperative Societies Act, 1962 or a Co-operative registered under the Orissa Self-Help Co-operatives Act, 2001 or a Government Agency called the Contract Farming Producer under a written agreement with another person or body of persons called Contract Farming Sponsor to the effect that produce of such Contract Farming Producer shall be purchased as specified in the agreement, by the Contract Farming Sponsor.
 - (b) "Contract Farming Agreement" means the agreement made for contract farming between the Contract Farming Producer and the Contract Farming Sponsor; and
 - (c) "Contract Farming Producer" means a person, firm, company, co-operative society, co-operative or Government agency as mentioned in clause (a).
- 6 D. Contract Farming Agreement shall be governed in the manner laid down hereinafter.
- (1) Contract Farming Sponsor shall register himself or itself with the Market Committee in such manner and with such fee payable to the Market Committee as may be specified by the State Government.
 - (2) The Contract Farming Sponsor shall get the Contract Farming Agreement recorded with the concerned Market Committee and the Contract Farming Agreement shall be in such form containing such particulars and terms and conditions as may be specified by the State Government.

- (3) Dispute arising out of the Contract Farming Agreement may be referred to the Director for settlement and the Director shall decide the dispute in a summary manner within thirty days from the date of reference, after giving the parties a reasonable opportunity of being heard in the manner prescribed.
- (4) The party aggrieved by the decision of the Director under subsection (3) may prefer an appeal to the Secretary to Government, Cooperation Department within thirty days from the date of the decision and the appeal shall be disposed of within thirty days, after giving the parties a reasonable opportunity of being heard and the decision shall be final.
- (5) The decision under sub-section (3) or (4) shall have the force of a decree of a civil court and the decretal amount shall be recovered as an arrear of land revenue.
- (6) The agricultural produce covered under the Contract Farming Agreement may be sold to the Contract Farming Sponsor outside the market yard and in such a case, no market fees shall be leviable.
- (7) Notwithstanding anything contained in the Contract Farming Agreement, no title, right, ownership or possession shall be transferred or alienated or vest in the Contract Farming Sponsor or his successor or his agent or his assignee, as the case may be."

By order of the Governor

D. K. SAHU

Principal Secretary to Government

ANNEXURE-2

Guidelines for contract farming circulated by Govt. of Orissa¹

24-S. Registration of Contract Farming Sponsor-(1) Every person intending to enter into marketing activities as a Contract Farming Sponsor within any market area of the State, shall make an application to the concerned Market Committee for registration and shall deposit a sum of Rs.2,000/- (Rupees two thousand) only as registration fee for the purpose. Where a Contract Farming Sponsor intends to take up contract farming activities in more than one Market Area, he shall make separate applications for registration in each such Market Area.

(2) Every such application for registration shall be in duplicate and shall be accompanied by

- (i) A Demand Draft of Rs.2, 000/- in favour of the Market Committee drawn on any Nationalized / Co-operative Bank payable at its Headquarters, and
- (ii) Passport size photograph of the applicant or the person authorized along with the following particulars—
 - a) Name of the applicant or authorized person,
 - b) Place and particulars of business for which registration is required, and
 - c) Such other information as may be required.

(3) A copy of the application for registration along with all its enclosures shall simultaneously be furnished by the applicant to the Director along with application addressed to him seeking clearance of Government for such registration.

(4) The Director² shall examine the application and submit his report to the Government with specific recommendation for consideration within 15 days from the date of receipt of the application. The Government may issue orders giving clearance for the registration of the Contract Farming Sponsor to take up Contract Farming in the concerned Regulated Market Committee(s) area and intimate this fact to the Director and Regulated Market Committee(s) concerned.

¹ These guidelines were sourced from the internal circular No. 1604/19/1325, dtd. 20-8-2009 issued by the Andhra Bank Zonal Office, Berhampur.

² Director of Agricultural Marketing in the Cooperation Department, GoO.

- (5) The Regulated Market Committee, thereupon, shall register the Contract Farming Sponsor in the Register of Contract Farming Sponsors maintained and issue a certificate to each successful applicant in. The registration shall be valid upto the end of the financial year in which it is effected.
- (6) Registration of a Contract Farming Sponsor shall be renewed for a period of one year by the concerned Regulated Market Committee on an application made by the Contract Farming Sponsor.
- (7) Application for annual renewal of registration shall be made to the Regulated Market Committee at least 30 days before the expiry of registration and the applicant shall deposit a sum of Rs.1, 000/- as renewal fee which if not applied for within the stipulated time, may be considered only on payment of a fine of Rs.15/- for each day of delay: Provided that no application for renewal of registration shall be entertained after the expiry of 30 days from the date of expiry of registration or renewal and same shall be treated as a case for fresh registration.
- (8) If registration or renewal is not granted for reasons, other than non-compliance of requirement of the conditions under the Act, the registration or renewal fee, as the case may be, shall be refunded after retaining 5% of the fee paid towards administrative charges.

24.T Contract Farming Agreement-

- (1) The Contract Farming Sponsor shall enter into an Agreement with every Contract Farming Producer and shall furnish copies of each such Agreement to the Regulated Market Committee. The copies of Agreements shall be kept on record by the Secretary of the concerned Market Committee in a Register maintained for the purpose.
- (2) The Agreements for Contract Farming may be seasonal or annual. All seasonal or annual Agreements shall be entered into before sowing of the crops In case of horticultural tree crops, the time of Agreements may be at the stage of flowering, or at any stage deemed appropriate by the parties to the agreement.
- (3) The Contract Farming Agreement shall contain a description of the farm, land survey number, specification of farm produce, specification of quality, specification of commodity contracted, crop delivery Agreement, insurance coverage etc. as well as details of the price to be paid for the produce indicating the mode of payment to be made to the Contract Farming Producer.
- (4) The Contract Farming Sponsor shall be responsible for taking possession of the produce at the farm or at an agreed place and for making arrangements for unloading, sorting, grading or other quality checks as necessary and weighing the produce at his cost, and issuing a Purchase Bill indicating the quantity, price and value of the produce purchased, and for making payment,

within such period not exceeding three days as may be agreed, of the amount receivable by the Contract Farming Producer after adjustment of the advances and cost of inputs and services, if any, received by such producer earlier.

- (5) The registering authority shall examine the Agreement and ensure that the interests of the Contract Farming Producers are protected and if in his opinion such an Agreement shall result in exploitation of the Contract Farming Producer or is otherwise detrimental to the interests of the Contract Farming Producer, the registering authority may refuse to register the Agreement, after giving an opportunity to all the parties to the Agreement or any other party whose interest will be affected by the Agreement of being heard.
- (6) A decision to register or to refuse registration of any Contract Farming Agreement shall as far as practicable be taken within a period of 15 days from the date of submission of the agreement for registration.

24-U. (1) Dispute and their redressal -All petitions seeking a redressal of disputes under sub-section (3) of section 6D of the Act, shall be in writing and such petitions shall be accompanied by-

- (i) A statement of the subject matter of the dispute;
 - (ii) A statement of the claim;
 - (iii) A copy of the relevant Contract Farming Agreement;
 - (iv) Such other statement or records as may be necessary to support the claim;
- (2) Verification of petitions -Every dispute petition shall be verified and signed by the party or by one of the parties submitting the petition and shall state the date on which and the place at which it was signed.
 - (3) Written Statement- The defendant may, at or before the first hearing or within such time as the Director or other officers hearing the dispute may permit, present a written statement of his defence.
 - (4) Fees for filing of dispute- A fee of Rs.10.00 on each petition shall be paid by way of affixing of court fee stamp.
 - (5) Procedure for settlement of dispute—
 - (i) The Director may, on receipt of a reference of a dispute under sub-section (3) of Section 6D,—
 - (a) decide the dispute himself, or

- (b) transfer it for disposal to any person who has been vested by the Government with powers in that behalf.
- (ii) The Director may withdraw any reference transferred under clause (i) and decide it himself or transfer the same to another person so vested with the powers.
- (6) The Director or any other person to whom the dispute is referred for decision under this rule may, pending the decision of the dispute, make such interlocutory orders as he may deem necessary in the interest of justice.
- (7) In the proceedings, the Director or the person to whom the dispute is transferred or referred for disposal, shall fix the date, hour and the place of hearing of dispute and issue notice to the parties concerned at least 7 days before the date fixed for hearing of the dispute.
- (8) Award or Decision— The Director or any person deciding the dispute shall, record a brief memorandum of the evidence of the parties and witnesses and upon the evidence so recorded and after consideration of any documentary evidence produced by the parties, a decision or award, as the case may be, shall be given on principles of justice and equity within 30 days from the date of reference. The decision shall be communicated to all the parties concerned immediately.
- (9) Consequence of non-appearance of parties—
- (i) When neither party appears, and the case of dispute is called for hearing then the case shall be dismissed.
- (ii) Where the defendant appears and the petitioner does not appear and the case is called for hearing the case shall be dismissed.
- (iii) When a case is dismissed for non-appearance of the petitioner, he may apply to set aside the dismissal order on showing sufficient cause for his previous non-appearance within a period of 30 days from the date of passing of the order.
- (iv) When the petitioner appears and the defendant does not appear and the case is called for hearing, the hearing may proceed *ex parte* provided the summons were duly served on the defendant.
- (v) When in any case in which a decision is passed *ex parte* against the defendant he may apply for an order to set aside and upon his satisfying that he was prevented by sufficient cause from appearing when the case was called for hearing, an order setting aside the decision as against the defendant shall be passed and a date shall be appointed for hearing of the case.
- (10) Disposal of Records—The original records of the proceedings after the decision has been delivered shall be kept in such place in such manner as the Director may direct, and any document or record tendered by a party in any dispute may, on application be returned to the party after the disposal of the appeal, if any, or after the period of appeal is over.

- (11) Certified Copies— A copy of the decision or award shall, on application be given to a party by the Director or any person authorized by the Director duly certified on payment of fees of Rs.10.00 for each page or part thereof within 7 days from the date of application.

24-V. Filing and disposal of appeal under sub-section (4) of section 6D-

- (1) An appeal under section 6D shall be presented by the appellant in person during office hours or sent by registered post.
- (2) Every appeal shall be accompanied by a certified copy of the order against which appeal is preferred.
- (3) Every appeal shall, —
- (i) be typewritten and legible;
 - (ii) specify the name and the address of the appellant and also the name and address of the opposite party;
 - (iii) state by whom the order against which the appeal is preferred, was made;
 - (iv) clearly state the grounds on which the appeal is made;
 - (v) state precisely the relief which the appellant claims; and
 - (vi) give the date of the order appealed against.
- (4) On receipt of the appeal, the appellate authority shall endorse on it the date of its receipt.
- (5) If the appellate authority finds that the appeal presented does not conform to any of the provisions, of the Act / Rules it shall make note on the appeal to that effect and may call upon the appellant to rectify the defect within such period as it may fix.
- (6) After the defect is rectified, the appellate authority shall fix the date, hour and place of hearing of the appeal and issue notice to the parties concerned in the form specified by it at least 7 days before the date fixed for hearing of the appeal.
- (7) If the appellant fails to rectify the defects within the fixed period, the appellate authority may dismiss the appeal.

- (8) Any appeal not filed within the prescribed time limit may be admitted when the appellant satisfies the appellate authority that he had sufficient cause for not preferring the appeal within such period.
- (9) On the date so fixed, the appellate authority shall go through the relevant papers, hear the appellant and defendants, if present and pass order on the appeal.
- (10) The appellate authority may, at its discretion, adjourn to any other day hearing of any appeal at any stage.
- (11) When the hearing of the appeal is completed, the appellate authority shall announce its judgment forthwith or may reserve it for a subsequent date in which case, the judgment shall be communicated to the parties.

24-W Award of Costs— The Director and the Appellate Authority may award any costs to the defaulting party in any dispute if he finds that the dispute or the appeal has been filed with the sole intention of using the process to harass the opposite party or if the circumstances of the case so warrants otherwise.

24-X Annual Account- A Contract Farming Sponsor shall submit annual accounts before 30th June every year to the Secretary of the Market Committee concerned in respect of all transactions in respect of the contract farming activities undertaken by him during the previous financial year”.

Source: Extraordinary gazette of Govt of Orissa bearing no: 660 dt 17.05.2006

ANNEXURE-3

Plan panel favours contract farming: govt

Press Trust of India / New Delhi March 08, 2011

The Working Group set up by the Planning Commission has recommended promotion of contract farming, Parliament was informed today.

The group of the sub committee of the National Development Council on agriculture headed by Chief Minister of Punjab looked into the issues relating to marketing reforms, contract farming and agro-processing sector, Minister of State for Agriculture Arun Yadav said in a written reply in Lok Sabha.

It submitted its report in May 2007, he added.

Yadav said that the likely benefits of contract farming are assured market, extension and input services to the producer, while ensuring assured supply of desired quality produce to contract farming sponsors.

Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Maharashtra, Orissa and Punjab are the states where crops are covered under contract farming, the minister added.

Contract farming involves cultivating and harvesting for and on behalf of business establishments or government and forwarding the produce at a pre-determined price.

In return, the contracted farmers are offered high price against their farm produce.

On the issue of regulation and intermediation mechanism for monitoring, Yadav said that the Model Agricultural Produce Marketing (Development and Regulation) (APMC) Act, 2003 was circulated by the agriculture ministry to the states/Union Territories for its adoption.

The model APMC Act provides for registration, recording and dispute settlement mechanism for contract farming, he said.

(Source: The Business Standard, <http://www.business-standard.com/india/news/plan-panel-favours-contract-farming-govt/128288/on>)

ANNEXURE-4

Names & addresses of some of the respondents of the survey

Name	Address
Pidika Sambur	Sanasarapally, Bandhugan, Koraput
Bada Satyam	Badagadabalasa Bandhugaon, Koraput
Pitambar Mahakur	Gunjadihi, Patapagad, Bolangir
Pidika Narpa	Sanasarapally, Bandhunga, Koraput
Pidika Kistama	Sanasarapally, Bandhunga, Koraput
Pidika Kamuda	Sanasarapally, Bandhunga, Koraput
Pidika Daleya	Sanasarapally, Bandhunga, Koraput
Tadingi Apeya	Sanasarapally, Bandhunga, koraput
Pidika Maliki	Sanasarapally, Bandhunga, koraput
Pidika Suresha	Sanasarapally, Bandhunga, koraput
Kameswar Sahukar	Nilabadi, Bandhunga, Koraput
Bisweswar Rio	Nilabadi Bandhunga Koraput
J . Balarama	Nilabadi Bandhunga Koraput
J . Prasada	Nilabadi Bandhunga Koraput
B. Satyam	Nilabadi Bandhunga Koraput
M. Tirupati	Nilabadi Bandhunga Koraput
Puala Satyam	Nilabadi Bandhunga Koraput

Pidika Tameya	Kabit, Bandunga Koraput
Pidika Ramswami	Kabit, Bandunga Koraput
Kadraka Sendreya	Kabit, Bandunga Koraput
Name	Address
Pidika Laku	Kabit, Bandunga Koraput
Pidika Nuka	Kabit, Bandunga Koraput
Nimaka Samuha	Kabit, Bandunga Koraput
Meleka Tirupu	Kabit, Bandunga Koraput
Pidika Poleya	Kabit, Bandunga Koraput
Pidika Bitu	Kabit, Bandunga Koraput
Nimaka Bitu	Kabit, Bandunga Koraput
Pidika Paindiga	Sanasarapally, Bandhunga, koraput
Pidika Anduru	Sanasarapally, Bandhunga, koraput
A. Simudu	Nilabadi Bandhunga Koraput
T. Ramesha	Nilabadi Bandhunga Koraput
Kama Suresha	Nilabadi Bandhunga Koraput
L . Bhaskara Rio	Sana Gadabalsa, Nilabadi Bandhunga Koraput

Bhubana Sahukar	Nilabadi, Bandhunga Koraput
Adadi Jena	Chakapadu, Nilabadi, Bandhunga Koraput
B. Satiram Naidu	Nilabadi, Bandhunga Koraput
P. Udaya Chandra	Nilabadi, Bandhunga Koraput
J. Bhaskar	Chekapadu, Nilabadi, Koraput
Ramdash Sabar	Arasingpada, Sirijholi, Rayagada
Dwarikanath Panigrahi	Sirijholi, Gunupur, Rayada
Brundaban Gouda	Pagadbuli, Sirijholi, Gunupur, Rayagada
Duryodhan Gouda	Pagadbuli, Sirijholi, Gunupur, Rayagada
Rama Gouda	Sirijholi, Gunupur, Rayada
Babula Gouda	Sirijholi, Gunupur, Rayada
Bina Gouda	Pagadbuli, Sirijholi, Gunupur, Rayagada
Prasad Gouda	Sirijholi, Gunupur, Rayada
Deviprasad Gouda	Pagadbuli, Sirijholi, Gunupur, Rayagada
Bana Sabar	Sintaluguda, Sirijholi, Gunupur, Rayada
Anabaya Sabar	Kaipadar, Sirijholi, Gunupur, Rayada
Tuna Gouda	Sirijholi, Gunupur, Rayada
Krushna Sabar	Kaipadar, Sirijholi, Gunupur, Rayada
Rabi Gamanga	Sintaluguda, Sirijholi, Gunupur, Rayada
Uika Rabana	Pagadbuli, Sirijholi, Gunupur, Rayagada
Sania Sabar	Dasmantpur, Sirilholi, Gunupur, Rayagada

Prasant Gouda	Kaipadar, Sirijholi, Gunupur, Rayada
Trinath Sabar	Bayaguda, GadiaKhala, Gunupur, Rayagada
Radhakant Panda	Dasmantpur, Sirilholi, Gunupur, Rayagada
Nilu Sabar	Bayaguda, GadiaKhala, Gunupur, Rayagada
Pitambar Sabar	Ampara, Gadiakhala, Gunpur, Rayagada
Sukadeva Panigrahi	Gadiakhala, Gunpur, Rayagada
Jayaram Mandangi	Khambaguda, Gadiakhala, Gunpur, Rayada
Uika Simanchala	Khambaguda, Gadiakhala, Gunpur, Rayada
Sangana Sabar	Ampara, Gadiakhala, Gunpur, Rayagada
Ela Narayan	Gadiakhala, Gunpur, Rayagada
Lipinti Bhasa	Gadiakhala, Gunpur, Rayagada
Apna Nayak	Gadiakhala, Gunpur, Rayagada
Trinath Gouda	Gadiakhala, Gunpur, Rayagada
Chakradhar Gouda	Gadiakhala, Gunpur, Rayagada
Rapinti Sabara	Gadiakhala, Gunpur, Rayagada
Santosh Pradhan	Puruna badini, Gadiakhala, Gunupur, Rayagada
Jagdish Samantara	Gadiakhala, Gunpur, Rayagada
Lamphatik Sabar	Ampara, Gadiakhala, Gunpur, Rayagada
Jagatbhusan Panda	Gadiakhala, Gunpur, Rayagada
Gopala Panigrahi	Gadiakhala, Gunpur, Rayagada

Sudarsan Gouda	Turukaniguda, Gadiakhala, Gunpur, Rayagada
Radha Majhi	Pradhanguda, Gadiakhala, Gunpur, Rayagada
Mutika Bhimadu	Turukaniguda, Gadiakhala, Gunpur, Rayagada
Uika Duryodhan	Machhakunda, Jagannathpur, Gunpur, Rayagada
Bhimasen Gouda	Malatipur, Jagannthpur, Gunpur, Rayagada
Rama Gouda	Sighibai, Jagannathpur, Gunpur, Rayagada
Raghunath Paikala	Malatipur, Jagannthpur, Gunpur, Rayagada
Jagdish Sahu	Karua, Jagannathpur, Gunpur, Rayagada
Radhankant Badapadara	Singibai, Jaganathpur, Gunpur, Rayagada
Puranjan Kadka	Gulumunda, Gulumunda, Kubedi, Rayagada
Ramakrishna Padhi	Gulumunda, Gulumunda, Kubedi, Rayagada
Udayanta Padhi	Gulumunda, Gulumunda, Kubedi, Rayagada
Anuradha Padhi	Gulumunda, Gulumunda, Kubedi, Rayagada
Raghunandan Padhi	Gulumunda, Gulumunda, Kubedi, Rayagada
Suryanarayan Nayak	Gulumunda, Gulumunda, Kubedi, Rayagada
R. Arilima	Gulumunda, Gulumunda, Kubedi, Rayagada
Sahadev Lima	Gulumunda, Gulumunda, Kubedi,

	Rayagada
Sada Lima	Gulumunda, Gulumunda, Kubedi, Rayagada
Gurudev Kadka	Gulumunda, Gulumunda, Kubedi, Rayagada
Ghana Lima	Gulumunda, Gulumunda, Kubedi, Rayagada
Sikhar Patika	Gulumunda, Gulumunda, Kubedi, Rayagada
Jaga Pani	Gulumunda, Gulumunda, Kubedi, Rayagada
Rabi Palaka	Gulumunda, Gulumunda, Kubedi, Rayagada
Laxminarayan Padhi	Gulumunda, Gulumunda, Kubedi, Rayagada
Kartika Gamanga	Panasaguda, Gulumunda, Kubedi, Rayagada
Sanku Sabar	Panasaguda, Gulumunda, Gunupur, Rayagada
Bisa Sabar	Panasaguda, Gulumunda, Kubedi, Rayagada
Adu Sabar	Panasaguda, Gulumunda, Kubedi, Rayagada
Prahalad Sabar	Panasaguda, Gulumunda, Kubedi, Rayagada
Buda Sabar	Panasaguda, Gulumunda, Kubedi, Rayagada
Mankada Sabar	Panasaguda, Gulumunda, Kubedi, Rayagada

Ramakanta Behera	Achaba, Gulumunda, Kubedi, Rayagada
Sudarsan Dhoba	Achaba, Gulumunda, Kubedi, Rayagada
Bhuban Dhoba	Achaba, Gulumunda, Kubedi, Rayagada
Laxmichand Sahu	Achaba, Gulumunda, Kubedi, Rayagada
Gapinath Panigrahi	Gulumunda, Gulumunda, Kubedi, Rayagada
Bairagi Gamanga	Pujariguda, Ulumba, Gunupur, Rayagada
Binayaka Pradhan	Bharasing, Bagsala, Gunupur, Rayagada
Sadananda Mahapatra	Bhaleri, Bagsala, Gunupur, Rayagada
Ramanath Panigrahi	Bhaleri, Bagsala, Gunupur, Rayagada
Rini Sabar	Pujariguda, Ulumba, Gunupur, Rayagada
Ramachandra Mahala	Bharasing, Bagsala, Gunupur, Rayagada
Ganapati Sabar	Dandaguda, Ulumba, Gunupur, Rayagada
Sania Sabar	Dandaguda, Ulumba, Gunupur, Rayagada
Ramesh Pradhan	Bharasing, Bagsala, Gunupur, Rayagada
Ganapati Bidika	Amaningi, Gunupur, Rayagarh
Kailash Gouda	Amaningi, Gunupur, Rayagarh
Basu Gamanga	Gaudaguda, Amasingi, Kudehi, Rayagarh
Subasa Gamanga	Goudagutha, Amapingi, Kudehi, Rayagada
Kailash Gouda	Amaningi, Kudehi, Gunupur, Rayagarh
Padman Gouda	Amapingi, Gunupur, Rayagada

Arjun Sabar	Engereba, Titimiri, Dambasara, Rayagada
Surendra Gamanga	Goudagutha, Amapingi, Kudehi, Rayagada
Giridhaari Sabar	Engereba, Titimiri, Dambasara, Rayagada
Padma Charan Gouda	Amaningi, Kudehi, Gunupur, Rayagarh
Ramakanta Gamanga	Tikarapada, Uluntha, Gunupur, Rayagada
Iswar Gamanga	Tikarapada, Uluntha, Gunupur, Rayagada
Hadu Sabar	Tikarapada, Uluntha, Gunupur, Rayagada
Sadhan Gamanga	Tikarapada, Uluntha, Gunupur, Rayagada
Kandha Mahankada	Tikarapada, Ukumba, Gunupur, Rayagada
Lalia Sabar	Ombasara, Gunupur, Rayagada
Samanatha Sahukar	Ombasara, Gunupur, Rayagada
Bhima Sabar	Ombasara, Gunupur, Rayagada
Harekrishna Behera	Puruna gunpur, Gunpur, Rayagada
Sri Goura Nayak	Banchadiha, Dangabahal, Patnagada, Bolangir
Pidika Rajpa	Sana sarapali, Bandhugaon, Koraput
Milok Gamango	Ragidi, PO. B.Kapakhal, Gumma, Gajapati
Jije Bel Gamango	Ragidi, PO. B.Kapakhal, Gumma, Gajapati
Gamili Sakoro	Latur, PO. K Sipur, Gumma, Gajapati
Nuamajhi Mundika	Karlakana, Turiguda, PO. Kutraguda, Rayagada

Gagapati Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Janju Kadamaka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Natha Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Somanath Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Bimaraj Mundika	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Purnachandra Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Bibhisana Mundika	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Budu Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Purusotam Mundika	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Kumuti Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Dhanamali Mundika	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Krushna Ch. Mundika	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Biswanath Dumadanga	Madu, Jhuriguda, PO. Kutragada, Chandrapur, Rayagada
Mahoni Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Jita Pidikaka	Tinapadar, Turiguda, PO. Kutraguda, Block. Chandrapur, Muniguda, Rayagada

Dasarathi Mundika	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Kartika Ch. Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Arjuna Pidikaka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Iswar Kutuka	Karlakana, Turiguda, PO. Kutraguda, Rayagada
Minaketan Janda	Khalana, PO. Ghugamuda, PS. Sinapali, Nuapada
Jitendra Jagat	Khalana, PO. Ghugamuda, PS. Sinapali, Nuapada
Radhuram Jagat	Khalana, PO. Ghugamuda, PS. Sinapali, Nuapada
Dineka Janda	Khalana, PO. Ghugamuda, PS. Sinapali, Nuapada
Mansingh Punani	Chhota daralpada, PO. Ghugamuda, PS. Sinapali, Nuapada
Jagabandhu Jagat	Khalana, PO. Ghugamuda, PS. Sinapali, Nuapada
Rohit Sunani	Khalana, PO. Ghugamuda, PS. Sinapali, Nuapada
Gobinda Hansa	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Debakumar Hansa	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Laxman Pibhela	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Dhanuram Bana	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada

Gobinda Hansa	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Rajib Majhi	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada
Sanyasi Herana	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Ujala Sunasa	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Jayadhar Sunani	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Kruti Majhi	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Debakumar Herna	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Madhuram Nibhela	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Khageswar Bag	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Husen Hansa	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Jaya chandra Herna	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Gola Hansa	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Chakradhar Sunani	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Makuna Pidela	Kuntapatar, PO. Ghugamuda, PS. Sinapali, Nuapada
Krutika Majhi	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada

Jayapal Jag	Sadhadar, PO. Ghugamada, PS. Sinapali, Nuapada
Chan Pujari	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Kamala Bag	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada
Prema Majhi	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada
Bididhar Sunani	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Khirasindhu Sunani	Kaetadarbar, PO. Ghumaguda, PS. Sinapali, Nuapada
Khitiram Derna	Kaetadarbar, PO. Ghumaguda, PS. Sinapali, Nuapada
Jabahal Heran	Kuathapadar, PO. Ghumaguda, PS. Sinapali, Nuapada
Jitamitra Herna	Kuathapadar, PO. Ghumaguda, PS. Sinapali, Nuapada
Anubasingh Ghirela	Kuathapadar, PO. Ghumaguda, PS. Sinapali, Nuapada
Deba Kumar Hansa	Kuathapadar, PO. Ghumaguda, PS. Sinapali, Nuapada
Arakhita Herna	Kuathapadar, PO. Ghumaguda, PS. Sinapali, Nuapada
Khirasindu Majhi	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Kunu Sunani	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Tulabi Majhi	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada

Harisingh Sunani	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Dhanistha Majhi	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada
Rikhiram Bag	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada
Harisingh Majhi	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada
Bipin Sunani	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Prameswar Sunani	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Dambarudhar Bag	Phulachi, PO. Nangalabord, PS. Sinapali, Nuapada
Jagamohan Sunani	Khairapadar, PO. Ghugaguda, PS. Sinapalli, Nuapada
Sadadeb Khamari	Chandanpuri, GP/PO. Lerma, Block. Patnagada, Bolangir
Sagar Sahu	Khuntapani, PO. Lerma, Block. Patnagarh, Bolangir
Sibaji Tandi	Kahesatal, PO. Larambha, Block. Patnagard, Bolangir
Bhibisana Nayak	Rengali, Ambapali, PO. Tasienna, Via. Patnagarh, Bolangir
Trinath Nayak	Rengali, Ambapali, PO. Tasienna, Via. Patnagarh, Bolangir
Kirtan Kathar	Rengali, Ambapali, PO. Tasienna, Via. Patnagarh, Bolangir
Santosh Nayak	Rengali, Ambapali, PO. Tasienna, Via. Patnagarh, Bolangir

Baisananda Pradhan	Karlapita, PO. Undimahaja, PS./ Dist. Bolangir
Jadumani Pradhan	Kallapita, GP. Undimuhana, Bolangir
Hiradhar Sahoo	Rengali, Ambapali, PO. Tasienna, Via. Patnagarh, Bolangir
Kasta Barad	Karlapita, PO. Undimahaja, PS./ Dist. Bolangir
Chaitanya Pradhan	Karlapita, PO. Undimahaja, PS./ Dist. Bolangir
Nityadipa	Punia bahal, PO. Phatamunda, Patnagada, Bolangir
Ghana Tandi	Gunian bahal, PO. Phatamunda, PS. Patnagada, Bolangir
Bhibi Sabar	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Krushna Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Jayaram Sabar	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Dasamat Bhoi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Santosh Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Ludu Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Bhobana Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Bena Harizan	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi

Anchal Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Jayaram Sabar	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Sana Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Alekha Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Ani Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Danai Sabar	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Anju Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Ani Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Ratna Bag	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Narasingha Sabar	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Pramod Sabar	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Baladev Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Jayakala Sabar	-
Bali Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Raghunath Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi

Madhan Majhi	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Hari Sabar	Latka Khaman, Garbadhanpur, Block. Lanjigada, Kalahandi
Bhojaraj Bariha	Dabmal, PO. Baghamunda, PS. Patnagada, Bolangir
Paradhani Hiala	Budhahada, Dakuluguda, Rayagada
Santosh Chhatria	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Narasingh Gouda	Madibandha, Lanjigada, Kalahandi
Nakula Panda	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Biswanath Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Arata Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Phagun Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Paramananda Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Luchan Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Charasing Gouda	Manibandha, Lanjigada, Block: :Lanjigada

Magasira Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Harichakar Gouda	Manibandha, Lanjigada, Block: :Lanjigada, Kalahandi
Syamsundar Harizan	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Rabi Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Benudhar Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Ramachandra Harizan	Madibandha, Lanjigada, Kalahandi
Bharat Gouda	Madibandha, Lanjigada, Kalahandi
Dhanurya Gouda	Madibandha, Lanjigada, Kalahandi
Harichandra Gouda	Madibandha, Lanjigada, Kalahandi
Matiram Rout	Laguda, Lanjigada, Kalahandi
Bheru Rana	Karuguda, Lanjigada road, Block: Lanjigarh, Kalahandi
Tanu Chatria	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Jitamitra Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi

Kesaba Gauda	Madibanta, Lanjigada road Lanjigada, Kalahandi
Bailochana Sabara	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Abira Sabara	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Mahadeba Sabara	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Kailasa Sabara	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Kalakutu Sabara	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Bisarba Sabara	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Jujne Sabar	Kidinga, Lanjigada road, Block: Lanjigarh, Kalahandi
Urban Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati
Ajit Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati

Jakhiya Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati
Iskem Mondol	Linga, PO. Asruiyigada, Gumma, Gajapati
Ilaganta Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati
Paparbidi Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati
Johan Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati
Dabin Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati
Somiso Mondol	Linga, PO. Asruiyigada, Gumma, Gajapati
Aluka Gomango	Linga, PO. Asruiyigada, Gumma, Gajapati
Pitoro Raito	Kinlungorjang
Pajona Gamango	Linga, PO. Asruiyigada, Gumma, Gajapati
Laki Raito	Patimal, PO. Asruiyoda, Via. Gumma, Gajapati
Mojesh Sarbin	Rasidi, PO. B. Kolakuta, Via. Gumma, Gajapati
Sarasu Raita	Patimul, PO. Asroyagada Via. Gumma, Gajapati

Jadan Gomangu	Engerda, PO. B.Kitalhala, Via. Gumma, Gajapati
Parichha Nayak	Samagaita, PO. Ashrayagarh, via. Gumma, PS. Seranga, Gajapati
Aroto Mondol	Linga, PO. Asruiyigada, Gumma, Gajapati
Ismad Gamang	Rasidi, PO. B. Kolakuta, Via. Gumma, Gajapati
Gadadhar Santa	Ruisibandha, PO. Jharigaon, Nabarangpur
Krushna Santa	Dhanuna mal, Jharigaon, Nabarangpur
Purna chandra Gouda	Hatibadi, PO. Jharigaon, Nabarangpur
Kamalochan Sing	Baraguda, PO. Jharigaon, Nabarangpur
Huta Nayak	Omaripada, Kutrichhapar, Jharigaon, Nabarangpur
Jadab Bishoi	Phulabhata, Nabarangpur
Saman Pujari	Phulabhata, Nabarangpur
Haladhar Gouda	Kutrichhapar, Jharigaon, Nabarangpur
Manasae Bhuja	Kutrichhapar, Jharigaon, Nabarangpur
Biseswar Dhurua	Soripada, GP. Kutrichhapar, Nabarangpur
Lalita Kumar Jani	Duragaon, PO. BM Semla Kosaguda, Nabarangpur
Tunaram Pujari	Tradisemna, PO. B.M. Semla Kosaguda, Nabarangpur

Rukuni Majhi W/o. Bishnu Majhi	M. Semla, vill. B.M. Semla, Block. Kosagumuda, Nabarangpur
Mohan Majhi	B.M. Semla, Nabarangpur
Nila Bhadra	B.M. Semla, Block. Kosagada, Nabarangpur
Sripati Santa	Jharbandhaguda, PO. Ekamba, Block. Jharigaon, Nabarangpur
Sindhu Panka	Goramba, PO. Ekamba, PS. Umakote, Nabarangpur
Mandhar Gopala	Ekamba (Kha), PO. Ekamba Block. Jharigaon, Nabarangpur
Baraj Santa	Jamajhola, PO. Thikamba, Block. Jharigaon, Nabarangpur
Sripati Ganda	Dhanapur, GP/PO. Ekamba, Block. Jharigaon, Nabarangpur
Bidyadhar Nayak	GP/Vill. Gurusinga, PO/PS. Jharigaon, Nabarangpur
Narasingha Majhi	Banjhiamba, Jharigaon, Nabarangpur
Krushna Gouda	Jamuguda, Jharigaon, GP. Gurusinga, Nabarangpur
Jhasiram Khanda	Kusumi, PO/PS. Jharigaon, Nabarangpur
Tankadhar Mali	Kusumi, PO/PS. Jharigaon, Nabarangpur
Tularam Utara	Kujaguda, PO/PS. Kodinga

Dumara Utara	Jhanaguda, PO/PS. Kodinga
Motisingh Jani	Chalashguda, PO/PS. Kodinga, Nabarangpur
Banu Utara	Daniguda, PO./PS Kodinga, Nabarangpur
Madhuban Harijan	Durkaguda, PO. Kandapuri, Nabarangpur
Antu Jani	Parajaguda, Pandaguda, Nabarangpur
Sarabu Gouda	Chalashguda, PO/PS. Kodinga, Nabarangpur
Kesab Bhadra	Dangachuan, Panduguda, PO. Kandapuri, Nabarangpur
Antu Harizan	Dangachuan, Panduguda, PO. Kandapuri, Nabarangpur
Madhu Bhadra	Parajaguda, Pandaguda, Nabarangpur
Dambaru Bhadra	Mahazanguda, PO/GP. Maneigaon, Nabarangpur
Jugasai Bhadra	Nunpani, PO./GP. Ekari, PS. Kodinga, Block. Kosagumuda, Nabarangpur
Prahalad Gouda	Gajabaguda, PO. Madeigaon PS. Kodinga, Nabarangpur
Rainu Santa	Narapadar, PO/GP. Madeigaon Nabarangpur
Suman Harizan	Jaragaon, PO/GP. Madeigaon Kodinga, Nabarangpur
Tulasidas Padka	Dangarigada, GP. Borigaon PS. Dabugaon, Nabarangpur

Dhansingh Utara	Kohakaguda, GP. Kodakhunta, PS. Dabugaon, Nabarangpur
Sudar Utara	Ghodakhunta, PS. Dabugaon Nabarangpur
Purana Utara	Masuguda, Kohakaguda
Nilakantha Pujari	Menjar, PO. Ghodakhunta, PS. Dabugaon, Nabarangpur
Dambu Sabar	GP. Ghodakhunta, PS. Dabugaon, Nabarangpur
Deba Gouda	Dangarigada, GP. Borigaon PS. Dabugaon, Nabarangpur
Jagabandhu Gouda	Dangariguda, GP. Borigaon Dabugaon, Nabarangpur
Hari Panaka	Pariabeda, GP. Borigaon, PS. Dabugaon, Nabarangpur
Dasarath Gouda	Dangariguda, GP. Borigaon Dabugaon, Nabarangpur
Kusa Gouda	Modigaon, PO. Junapani, Block. Dabugaon, Nabarangpur
Sana Gouda	Modigaon, PO. Junapani, Block. Dabugaon, Nabarangpur
Debisingh Bhadra	Junapani, PO. Junapani
Dhananjaya Harijan	Rabanaguda, PO. Borigaon, Block. Dabugaon, Nabarangpur
Kamulu Bhadra	Anasara, PO. Junapani, Block. Dabugaon, Nabarangpur

Rupsingh Majhi	vill/PO. Kabaguda, Block. Dabugaon, Nabarangpur
Bhakachanda Majhi	Daragula, PO. Jabaguda, Block. Dabugaon, Nabarangpur
Balaram Bhadra	Malidangari, PO. Kabaguda, Block. Dabugaon, Nabarangpur
Basuna Tuika	Budhahada, Bisamakatak
Kumuti Tuika	Budhahada, Bisamakatak
Gaura Bag	Budhahada, Bisamakatak
Balaram Dangari	Budhahada, Bisamakatak
Sekra Dangari	Budhahada, Bisamakatak
Biswanath Chichuan	Sikabandha, Dabuluguda, Bisamakatak
Sarathi Batra	Budhahada, Bisamakatak
Parsuram Batria	Budhahada, Bisamakatak
Bajhu Tuika	Budhahada, Bisamakatak
Narnu Tuika	Budhahada, Bisamakatak
Daranu Hikka	Budhahada, Bisamakatak
Duryodhan Tuika	Budhahada, Bisamakatak
Padman Kasi	Kumudabali, Muniguda
Purandhar Kasi	Singari Kumudabali
Brundaban Kasi	Singari Kumudabali

Pandab Kasi	Singari Kumudabali
Surendra Kasi	Singari Kumudabali
Krushna Kasi	Singari Kumudabali
Daibari Kasi	Singari Kumudabali
Ankur Kasi	Singari Kumudabali
Hara Kasi	Singari Kumudabali
Mambara Gadaka	Bambakhal, Hanumantpur, Chandrapur
Arla Gadala	Bambakhal, Hanumantpur, Chandrapur
Anam Kusulia	Indira Abas sahi, Chandrapur
Madunga Majhi	Bambakhal, Hanumantpur, Chandrapur
Mina Gadaka	Bambakhal, Hanumantpur, Chandrapur
Butudi Gadaka	Bambakhal, Hanumantpur, Chandrapur
Mundura Gadala	Bambakhal, Hanumantpur, Chandrapur
Jitandra Gadka	Bambakhal, Hanumantpur, Chandrapur
Buda Majhi Gadala	Dastakhal, Hanumantpur, Chandrapur
Suresh Madka	Bambakhal, Hanumantpur, Chandrapur
Kambidi Gadka	Bambakhal, Hanumantpur, Chandrapur

Jitendra Gadka	Bambakhal, Hanumantpur, Chandrapur
Hakila Gadala	Bambakhal, Hanumantpur, Chandrapur
Pirna Gadka	Bambakhal, Hanumantpur, Chandrapur
Tihili Gadka	Bambakhal, Hanumantpur, Chandrapur
Diu Madka	Bambakhal, Hanumantpur, Chandrapur
Kedar Gadka	Bambakhal, Hanumantpur, Chandrapur
Gundana Gadka	Bambakhal, Hanumantpur, Chandrapur
Madan Madka	Bambakhal, Hanumantpur, Chandrapur
Ramesha Gadaka	Bambakhal, Hanumantpur, Chandrapur
Prasanta Gadaka	Bambakhal, Hanumantpur, Chandrapur
Rama Gadaka	Bambakhal, Hanumantpur, Chandrapur
Buluka Gadaka	Bambakhal, Hanumantpur, Chandrapur
Kumuti Gadaka	Bambakhal, Hanumantpur, Chandrapur
Adinga Gadaka	Bambakhal, Hanumantpur, Chandrapur
Naresha Gasaka	Bambakhal, Hanumantpur, Chandrapur

Bhima Gadaka	Bambakhal, Hanumantpur, Chandrapur
Peti Gadaka	Bambakhal, Hanumantpur, Chandrapur
Tapanga Gadaka	Bambakhal, Hanumantpur, Chandrapur
Madhu Gadaka	Bambakhal, Hanumantpur, Chandrapur
Malaya Patra	Indira Abas sahi, Chandrapur
Adinga kitanga	Indira Abas sahi, Chandrapur
Sutura Kumbrika	Indira Abas sahi, Chandrapur
Jayashen Didunga	Indira Abas sahi, Chandrapur
Krenja Majhi	Indira Abas sahi, Chandrapur
Kalidashi Malika	Indira Abas sahi, Chandrapur
Dishaka Jarumundaka	Indira Abas sahi, Chandrapur
Rama Kitanga	Indira Abas sahi, Chandrapur
Krusna Bisai	Indira Abas sahi, Chandrapur
Bikrama Kitanga	Indira Abas sahi, Chandrapur
Trinatha Nayaka	Indira Abas sahi, Chandrapur
Anil Senap	Indira Abas sahi, Chandrapur
Rabindra Dudunga	Indira Abas sahi, Chandrapur
Sukru kritanga	Indira Abas sahi, Chandrapur
Elapa Gageranga	Indira Abas sahi, Chandrapur

Harekrusna Malayashari	Indira Abas sahi, Chandrapur
Hanu Paricha	Indira Abas sahi, Chandrapur
Bhanu Pidikaka	Indira Abas sahi, Chandrapur
Gupteswar Matabesi	Indira Abas sahi, Chandrapur
Somanatha Humudanga	Madu, Kutraguda, Chandrapur
Parsuram Batra	Budhahada, Bisamakatak
Asant Kutuka	Lundubadi, Kutraguda, Chandrapur
Balaram Dangari	Budhahada, Bisamakatak
Judhisthi Batra	Budhahada, Bisamakatak
Dasarathi Dumatanga	Madu, Kutraguda, Chandrapur
Narendra Kutuka	Lundubadi, Kutraguda, Chandrapur
Sukru Tuika	Budhahada, Bisamakatak
Siri Tuika	Budhahada, Bisamakatak
Dhanial Tuika	Budhahada, Bisamakatak
Jagabandhu Tuika	Budhahada, Bisamakatak
Lakhi Tuika	Budhahada, Bisamakatak
Balabhadra Kutuka	Lundubadi, Kutraguda, Chandrapur
Budu Kutuka	Kundurunadi, Kutraguda, Chandrapur
Mahendra Kutuka	Madu, Kutraguda, Chandrapur
Jayashen Kutuka	Madu, Kutraguda, Chandrapur
Anirudha Kutuka	Madu, Kutraguda, Chandrapur

ANNEXURE-5

Survey format & questionnaire

The survey used a detail format & questionnaire with the following broad categories:

1. Name/address
2. Age/sex/caste/family size
3. Monthly expenditure
4. Land holding status
5. Soil testing status
6. Cropping system
7. By-products, if any
8. Food availability
9. Employment details(primary/secondary occupation with income)
10. Subsidiary occupation
11. Agricultural details(like, vulnerability to economic loss, etc.)
12. Details of community status & social issues
13. Cost of cultivation of commercial crops
14. Last 3 years rate of agricultural investments
15. Types of contract
16. Perception of farmers
17. Land quality details(carrying capacity, etc.)
18. Soil contamination details
19. Effects of change of cropping pattern
20. Increase (if any) in agricultural wastes
21. Effects on agro-biodiversity:
<ul style="list-style-type: none">• On general biodiversity• On water• On air quality• On human health

It is difficult here to reproduce the whole format because it is long enough. However, some sample questions are reproduced below:

Before contract farming				After contract farming			
Persons engaged in agriculture	Income from agriculture	Persons hired for farming	Wage rate	Persons engaged in agriculture	Income from agriculture	Persons hired for farming	Wage rate
Before contract farming				After contract farming			
Persons engaged in agriculture	Income from agriculture	Persons hired for farming	Wage rate	Persons engaged in agriculture	Income from agriculture	Persons hired for farming	Wage rate

EFFECTS OF CHANGE IN CROPPING PATTERN ON								
Soil			Water			Environment		
Status	Scale* (0-5)	Suggestive Mitigation Measures	Status	Scale* (0-5)	Suggestive Mitigation Measures	Status	Scale* (0-5)	Suggestive Mitigation Measures

Some of the sample responses are reproduced below under the category of agricultural details(three response-rows represent three different respondents):

Vulnerability to economic loss			Greater competition for natural resources (land, water, forests, fodder)			Change in Land use affecting long term profitability of land			Loss of land to non-agricultural use		
Status	Scale* (0-5)	Suggestive Mitigation measures	Status	Scale* (0-5)	Suggestive Mitigation measures	Status	Scale* (0-5)	Suggestive Mitigation measures	Status	Scale* (0-5)	Suggestive Mitigation measures
yes	5	Traditional food crop cultivation instead of commercial/mono crop	yes	2	Land Security	Yes	3	Minimum use of chemical fertilizers & pesticides	No	0	-
yes	5	Traditional food crop cultivation instead of commercial/mono crop	Yes	4	Forest conservation & protection	Yes	4	Using compost method of cultivation	Yes	6	To stop Monocrop cultivation
yes	2	Traditional food crop cultivation instead of commercial/mono crop	yes	5	Practice traditional cultivation	yes	2	Mixed crop & Traditional Crop cultivation	yes	3	-