

HOUSE LISTING SURVEY REPORT

Strengthening Livelihoods and Enhancing Food and Nutrition Security of Small and Marginal Farmers in Koraput District of Odisha through a Farming System Model

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About the Report

This report is a documentation of house listing survey results undertaken as part of the project “Strengthening Livelihoods and Enhancing Food and Nutrition Security of Small and Marginal Farmers in Koraput District of Odisha through a Farming System Model (FSMK) study in Koraput district of Odisha during 2018-19.

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HOUSE LISTING SURVEY REPORT

Strengthening Livelihoods and Enhancing Food and Nutrition Security of Small and Marginal Farmers in Koraput District of Odisha through a Farming System Model

1. Background

The majority of the population of Koraput (88%) live in rural areas; more than 70 per cent of the farmers are small and marginal landholders with an average landholding of 1.63 hectare and operational holding of 0.6 hectare (GoO, 2011)¹. The district is disadvantaged by high levels of under nutrition; for e.g. 71 per cent children (0-59 months) and 63 per cent women (15-49 years) anaemic as per the National Family Health Survey (2015-16)²; the level of rural poverty at 78 per cent is highest in the state³. Agriculture is the primary occupation of people in the district and it is predominantly rainfed farming. *Kharif* is the main cropping season with rice being the major crop followed by finger millet, little millet, niger, maize, sorghum and pigeon pea. Green gram, black gram and vegetables are cultivated in *rabi* season over a small area. A study on “Strengthening Livelihoods and Enhancing Food and Nutrition Security of Small and Marginal Farmers in Koraput District of Odisha through a Farming System Model” was sanctioned by Department of Agriculture and Farmer’s Empowerment, Govt. of Odisha under Rashtriya Krishi Vikas Yojana (RKVY) to be implemented in Koraput district of Odisha.

Agricultural growth and better food intake can lead to positive nutritional outcomes through changes in diets and food consumption and through changes in women’s work and time use in agriculture production. Given the importance of agriculture as a source of food, employment and economic growth in rural areas, this is an enormous opportunity. Keeping this in mind, the M. S. Swaminathan Research Foundation (MSSRF) worked on a feasibility study on Farming System for Nutrition (FSN) to address nutrition deficiencies in Koraput district from mid 2013 to 2018 under the research programme on “Leveraging Agriculture for Nutrition in South Asia” (LANSA)⁴. Focusing on increasing the area and availability of nutrient dense crops, viz. finger millets and pulses and starting with on farm demonstrations with 13 farmers from across seven

¹ Government of Odisha - GoO (2011). District Statistical Hand book of Koraput, Directorate of Economics and Statistics, Bhubaneswar.

² NFHS (National Family Health Survey) 4 (2015-2016). International Institute of Population Sciences, Mumbai, India; 2015-2016. Accessed on 2 July 2019 Available from http://rchiips.org/NFHS/factsheet_NFHS-4.shtml

³ <http://www.desorissa.nic.in/pdf/Depth%20and%20severity%20of%20poverty%20in%20Rural%20Odisha.pdf>

⁴ <http://lansasouthasia.org/lansasouthasia//content/farming-system-nutrition>

villages in 2013, the coverage increased to 756 farmers from across 25 villages towards the end of the study period. Nutrition garden of fruits and vegetables were promoted at household level, fishery was promoted subject to availability of water bodies and selected men and women were capacitated to be community nutrition resource persons or hunger fighters. Measures were taken for sustainability by facilitating community managed seed banks to ensure seed availability, postharvest management and establishment of decentralised cluster level millet and pulse processing mills, and leveraging access to entitlements. Endline survey in late 2017 revealed enhancement in availability of nutrient dense crops and animal foods coupled with greater nutrition awareness contributing to more intake of nutritionally rich food, and greater dietary diversity. Based on the evidence from the FSN study in seven villages in one block of Koraput district, MSSRF proposed this study to replicate and upscale the approach to cover new areas.

This report presents the analysis of the house listing survey in the villages selected for the replicating the FSN approach, under the current study.

2. Methodology

2.1 Study Location

Mathapada *Gram Panchayat* comprising 39 villages and eight villages from Doraguda *Gram Panchayat* in Boipariguda block were selected for the study. Figures 1 and 2 show the location of state, district, block and the villages.

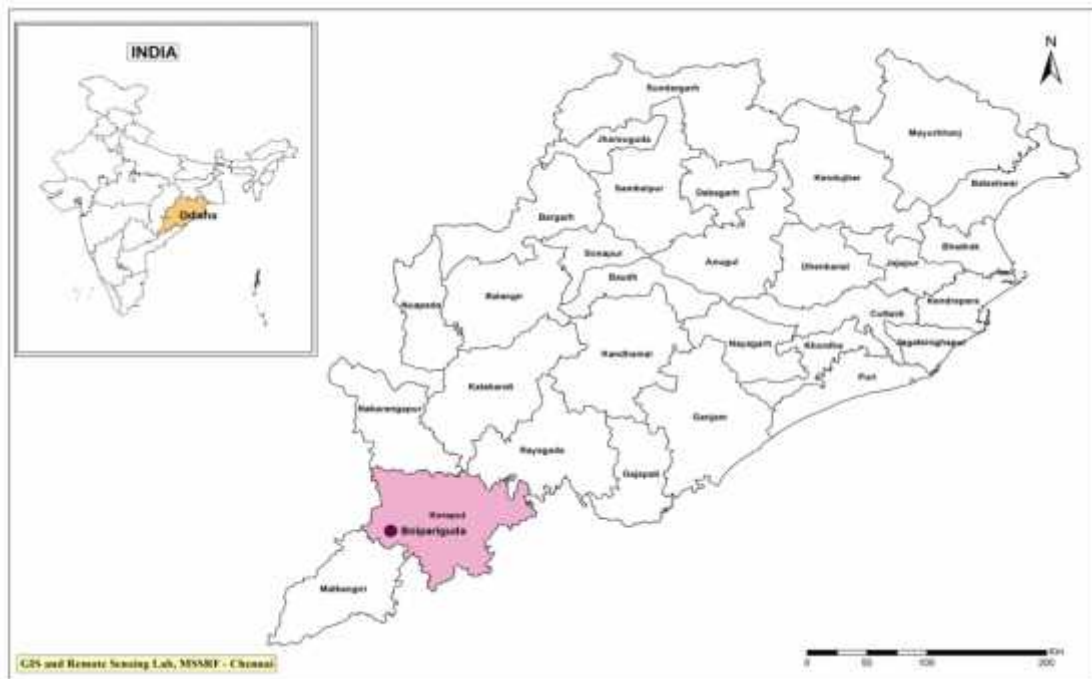


Figure 1: Map showing study district and block in Odisha State

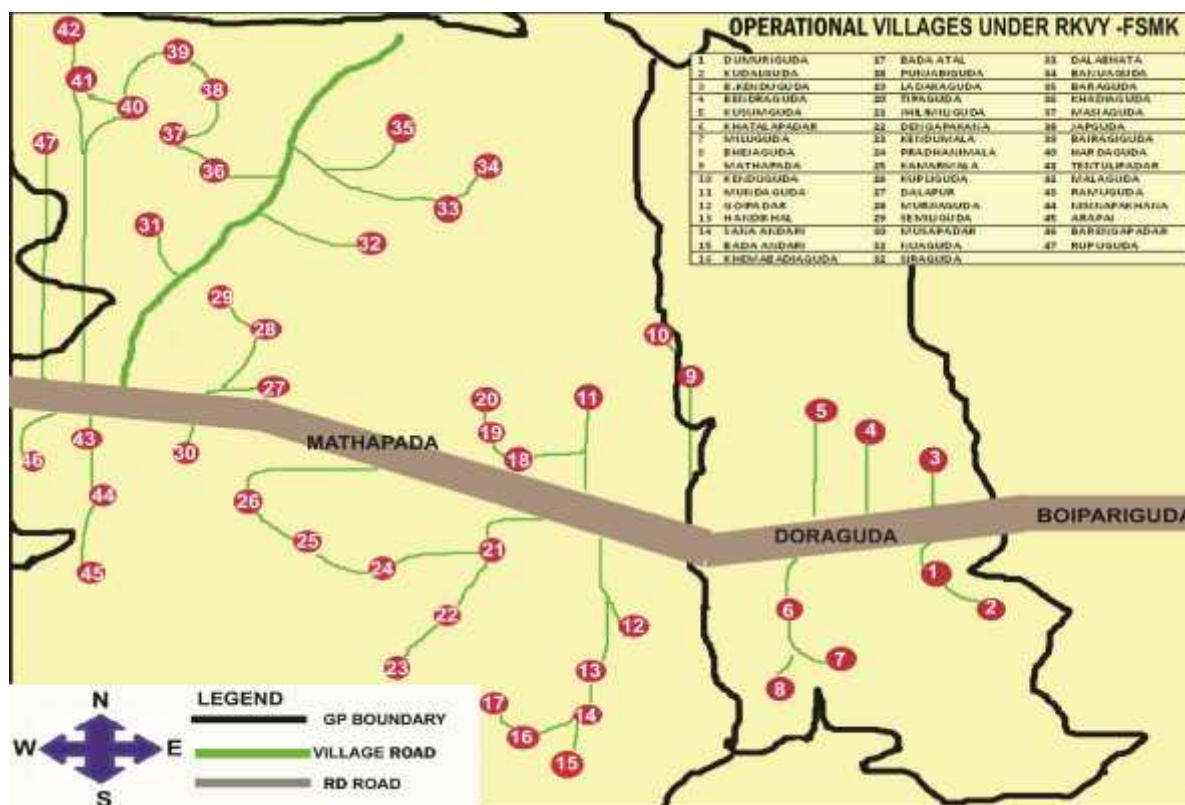


Figure 2: Map showing spread of the study villages

2.2 Survey

House listing survey was conducted during November - December 2018, to understand the demographic profile of the study villages. The socio economic characteristics, land class, livestock and home garden details were collected. The house listing survey questionnaire is given in Annexure.

3. Results

In total, there are 1575 households in the selected villages. Table 1 shows the number of households in each village. Ten villages in Mathapada *Gram Panchayat* and four villages in Doraguda *Gram Panchayat* are revenue villages.

Table 1: Number of households (HH) in the study villages

Gram Panchayat	Revenue Village	Village	No. of HHs	
Mathapada	Arapoi	Arapoi	21	
	Badaatala	Badaatala	25	
	Baringpod	Baringpodar	47	
	Dengapaka	Dengapaka	Dengapakana	23
			Kendumala	13
			Khemabadiaguda	5
	Goipadar	Goipadar	Bada andari	23
			Goipadar	51
			Handikhal	11
			Sana andari	26
	Jhilimili	Jhilimili	Jhilimiliguda	44
			Kamaramala	5
			Pradhanimala	7
	Mathapada	Mathapada	Banuaguda	55
			Baraguda	22
			Boiragiguda	4
			Dalabhata	67
			Dalapur	37
			Haradaguda	27
			Japguda	19
			Kenduguda	20
			Khadakiaguda	18
			Kupuliguda	12
			Ladkaguda	58
			Malaguda	11
			Masiaguda	35
			Mathapada	68
			Mundaguda	68
			Murjiaguda	45
			Nuaguda	69
			Punjabiguda	15
			Semiliguda	10
			Siraguda	34
Tentulipadar			102	
Tipaguda	80			
Musapadar	Musapadar	46		
Nisinapak	Nisinapak	Nisinapakhna	82	
		Ramaguda	15	
Rupaguda	Rupaguda	53		
Doraguda	Bergaon	B.kenduguda	16	
		Bendraguda	31	
	Doraguda	Kusumguda	28	
	Miluguda	Miluguda	Bhejaguda	16
			Khatalapadar	10
			Miluguda	12
	Minarbali	Minarbali	Kudalguda	38
Dumuriguda			51	
Total			1575	

The total population is 6795 with 3360 male and 3435 female. Table 2 shows the revenue village-wise population.

Table 2: Demographic profile of study villages

Block	Gram Panchayat	Revenue Village	Number of Households	Total Population	Population	
					Male	Female
Boipariguda	Mathapada	Arapoi	21	101	49	52
		Badaatala	25	100	49	51
		Baringpodar	47	227	115	112
		Dengapakana	41	189	89	100
		Goipadar	111	441	223	218
		Jhilimiliguda	56	230	117	113
		Mathapada	876	3,726	1,839	1,887
		Musapadar	46	192	99	93
		Nisinapakhna	97	448	222	226
		Rupaguda	53	254	128	126
	Doraguda	Bergaon	47	194	98	96
		Doraguda	28	138	63	75
		Miluguda	38	161	75	86
		Minarbali	89	394	194	200
Total			1575	6795	3360	3435

About 61% of the population are adults, 6% are adolescents, 23% are school going children between 5 to 14 years of age and 10% are children less than 5 years of age. Table 3 shows the distribution of population by age group and gender.

Table 3: Distribution of population by age group and gender

Age group	Total Population	Population	
		Male	Female
Less than 5 years	698	363	335
5 to 9 years	794	426	368
10 to 14 years	788	387	401
15 to 17 years	392	202	190
18 years above	4,123	1,982	2,141
Total	6,795	3,360	3,435

Majority (99%) of the population in the selected villages are Hindus and remaining 1% are Christians. About 74% of the population are Scheduled Tribes (ST), 13% are Scheduled Caste (SC), 12% belong to Other Backward Caste (OBC) and the remaining one per cent belongs to

general caste Bhumia, Kandha, Paroja, Gadaba, Kotia and Bhatra are the major sub castes that constitute the ST group; Harijan is the major sub caste in SC followed by Dombo. Gouda, Kamar, Rana, Paiko, Sundhi and Kumbhar are the sub castes under OBC group. Table 4 shows the distribution of caste and sub castes in the study location.

Table 4: Distribution of households by caste and sub caste

Caste	Sub-caste	Number of Households	% of Households
SC	Dombo	94	5.97
	Harijan	107	6.79
	Keuta	1	0.06
ST	Bhatra	24	1.52
	Bhumia	598	37.97
	Gadaba	60	3.83
	Kandha	327	20.76
	Kotia	29	1.84
	Paroja	128	8.13
	Saura	1	0.06
OBC	Bairagi	2	0.13
	Baishnaba	4	0.25
	Gouda	64	4.06
	Kamar	42	2.67
	Khandayat	2	0.13
	Kumbhar	8	0.51
	Paiko	21	1.33
	Rana	34	2.16
	Sundhi	10	0.63
	Telugu	3	0.19
General	Brahmin	12	0.76
	Kambaja	1	0.06
	Karana	3	0.19

More than half the households (54%) are 1 to 4 member households; 44 per cent households have 5 to 8 members and two per cent of households have more than 8 members. About 54% households live in semi pucca house, 36% in kutch house and the remaining 10% live in pucca house. About 87% of the households source drinking water from tube well or bore well, 8% of the households source water from taps, 3% from open well or dug well and 2% from surface water (Table 5). Majority of the households (68%) have toilet facility, but they mostly not used, due to poor water facility.

About 89% of households have ration card, out of which 84% have priority household ration cards (PHH) and 5% have Antyodaya Anna Yojana (AAY) ration cards. About 84% of households reported having bank account.

Table 5: Source of drinking water

Drinking water sources	Number of Households	% of Households
Open well/dug well	53	3.37
Surface water (tank/pond/river/dam etc.)	23	1.46
Tap water	123	7.81
Tube well/bore well	1,376	87.37

Majority of heads of households (73%) are illiterate; 14% have completed primary education. Only 6% and 5% have completed middle school and secondary school respectively, 1% has completed higher secondary and 1% has completed graduation. About 43% of the heads of households are farmers, 22% are agriculture labourers, 20% are engaged in non agriculture wage labour, 9% are doing business, 2% are salaried workers, 3% are getting pension and 1% are not in labour force (Table 6).

Table 6: Primary Occupation of the head of the household

Occupation	Number of Households	% of Households
Farmer	675	42.7
Agriculture labour	354	22.5
Non Agriculture labour	310	19.7
Business	135	8.6
Pension	55	3.5
Salaried worker	26	1.7
Not in labour force	20	1.3

About 42% of the households in the selected villages have marginal landholding (< 1 ha) followed by 24% with small landholding (1 to 2 ha.); 11 % have semi medium land (2 to 4 ha); 2% have medium land (4 to 10 ha); 21% of the households are landless.

Backyard area was reported by 81% of households with an average backyard area of 17.7 cents⁵. About 68% of households have poultry with an average of 6 birds. About 39% and 37%

⁵ One cent is 0.01 acre

of households owned cow and bullock with an average of 2 cows and 2 bullocks per household, respectively; 17% and 14% of the households owned buffalo and goat at an average of 3 buffalos and 3 goats per household, respectively; 16% of households owned sheep with an average of 4 sheep per household. Few households owned duck/ swan. Only 6% of the households reported having pond.

Forty nine per cent of the households reported that any one member of the household is a member of a village committee like Self Help Group (SHG), school committee or other village committees.

Table 7: Household annual income

Annual Income (Rs.)	% of household
<50000	66.3
50000 to <75000	21.7
75000	12.0

The approximate annual income of 66% of households is less than Rs.50000/- as seen from Table 7; only 12% of household reported an annual income more than or equal to Rs. 75000.

4. Way forward

Based on the house listing survey, a baseline survey is to be conducted for a subsample of 315 households (20% of the total households) drawn through random sampling for in-depth study, to understand the prevailing agriculture pattern, livestock, food consumption pattern and nutrition knowledge. It will be ensured that the distribution of socio economic variables and land class in the sample remain similar to the total population.

Annexure

Survey Questionnaire

M. S. SWAMINATHAN RESEARCH FOUNDATION, JEYPORE

Schedule No _____, **HH ID:** _____

Date of Interview: ____/____/____, Investigator Name :

Name of the Village/Hamlet:

Revenue Village: *Gram Panchayat:*

1. Name of the Respondent:

2. Aadhar No. of Head of the HH: _____ Contact No. _____

3. Caste: ST SC OBC Other (Specify-----)

4. Sub-caste:

5. Religion: Hindu Muslim Christian Other (Specify-----)

6. Total Members in the Household: _____

7. Particulars of the Household Member:

Member ID.	Name	Relationship ¹	Sex	Age ²	Education ³	Marital Status ⁴	Primary Occupation ⁵
101		Head of the HH		--.---			
102				--.---			
103				--.---			
104				--.---			
105				--.---			
106				--.---			
107				--.---			
108				--.---			
109				--.---			
110				--.---			
111				--.---			
112				--.---			

HH-all members sharing a common kitchen 1. Relationship to Head of the household; 2. Age- in completed years, (age in complete year and month for below 5 year), 3. Education- Completed years of schooling/college), 4. Marital Status- Un married (UM), married (M), widow (W), separated (S) / divorced (DV) 5. Primary Occupation (farmer, agricultural labourer, Non-agriculture labourer, (Govt. employee - teacher driver, peon, clerk), tailor, disari, tea shop, vegetable seller, grocery seller etc.) - to write as described by the respondent where primary refers to six months or more of employment in a year;

8. Land details (in Acres)

Land Type	Operational Land		Leased out	Fallow land
	Own	Leased in		
Up Land				
Medium Land				
Low Land				
Total				

9. Ownership of Livestock (Fill numbers)

Bullock	Cow	Buffalo	Goat	Sheep	Poultry	Pig	Duck/Swan	Others (specify)

10. Does your household have backyard area? Yes / No: _____ ,

If yes, how much area: _____ (in cent)

11. Does your household have pond? Yes / No: _____.

12. Type of House: Own / Rented /Own (govt. provided)/ others (specify): _____

13. Nature of House: Kutcha / Semi-pucca / Pucca: _____ (based on roof materials)

14. What is the principal source of drinking water

a) Tap water supply	
b) Tube well/bore well	
c) Open well/ Dug well	
d) Surface water (tank/pond, river, dam, stream, canal, lake, etc.)	

15. Does your household have toilet facility? Yes/No

16. What is the principal source of income of the household?

Cultivation/livestock/fishing/other agricultural activity/non-agricultural enterprises/wage-salaried employment/pension/remittances/any other (specify)_____

17. What is the approximate annual income of the household (in Rs.)? _____

18. Does the household possess ration card? Yes /No: _____

a. If Yes, type of card: AAY / Priority Households (PHH) /Non Priority households (NPHH)

19. Are you a member of any of the- SHG/Farmers' Group/Village Development Council/FPO/Any other (specify):_____

20. Do you have bank account in your name? :

a. If yes, provide the details: A/C. No _____

b. Name of the Bank:_____ Branch _____

Signature of the Investigator