

## Possession of Livelihood Assets in Rural Households: An Economic Analysis

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### ABSTRACT

Agriculture is the principal source of food and livelihood in India. Demographically it is the broadest economic sector and plays a significant role in the overall socio-economic fabric of India. The study was conducted in two districts of Rohtak division namely Sonipat and Karnal by random selection and by selecting one block from each selected district and two villages from each of the selected block at random. From the selected four villages a sample of 300 respondents i.e. 75 small and marginal farm families from each village was drawn at random. Results of the study in physical capital revealed that cent per cent of farm families had their own house, majority (70.0%) of the farm families had high material possession, 85.3 per cent of families were having more than 2.5-5 acre of land. Regarding financial capital, majority of the farm families (82.0%) saved their money in the form of fixed deposit, 63.3 per cent of the farm families had medium agricultural assets. About economic security, 45.0 per cent of families were having annual income ranging between Rs. 3,00,001-4 lakh, majority (61.3%) of farm families had residential property of worth upto Rs. 3 lakh and 24.6 per cent of families were somewhat dissatisfied with their current financial condition.

**Keywords:** Agriculture, capital, families, livelihood

### INTRODUCTION

Agriculture as the most important sector of the Indian economy, contributes about 18.5 percent of the total Gross Domestic Product (GDP) and provides employment to about 67 percent of the working population of the country (Wadhwa, 2008). The Indian agriculture is characterized by millions of marginal and small farmers having share of 83 percent and 63 per cent of land holding in the country (Chand *et al.* 2011). Conceptually, livelihood can be defined as people's capacity to maintain a living. In the last few decades, several institutions (e.g. FAO, UNDP, DFID etc.) have developed frameworks to analyze sustainability of livelihoods. Most of these frameworks are similar. DFID's conceptual framework, however, draws attention to the measured changes in different

factors that contribute to livelihoods: five capitals i.e. human capital, social capital, natural capital, physical capital and financial capital, institutional process and organizational structure, vulnerability of livelihoods, livelihood strategies, and outcomes (DFID, 1999). So, the study was conducted with the objective to explore livelihood capabilities of rural farm families.

### METHODOLOGY

For determining livelihood security of small and marginal farm families two districts namely- Sonipat and Karnal were selected randomly from Rohtak division of Haryana state. One block from each selected district viz. Ganaur from Sonipat district and Karnal block from Karnal district were selected randomly. Two villages from each block were selected

randomly. From the selected four villages seventy five small and marginal farm families were drawn randomly, thus making a total sample of 300 respondents. Two components for livelihood capabilities i.e. physical capital, financial capital and one security i.e. economic security were included. Parameters of physical and financial capital were assessed on three point continuum and parameters of economic security were assessed on five point continuum. The collected data were quantified and interpreted by using suitable statistical tools such as frequency, percentage, weighted mean score and coefficient of correlation.

## RESULTS AND DISCUSSION

### Physical capital

A perusal of data in Table 1 indicates that all the selected farm families in both the districts had their

own house (100.0%). As regards type of house, it was noticed from the table 11 that majority (62.0%) of the farm families had semi-pucca type house and pucca (38.0%) in Sonipat district. About 77.3 per cent of the farm families were having pucca type house and 22.7 per cent were having semi-pucca house in Karnal district.

The Table 1 further reveals that as regards size of house, majority (65.3%) of farm families were having medium size of house followed by small house (34.7%) in Sonipat district whereas in Karnal district 48.7 per cent of the farm families were having small size of house followed by medium size of house (42.7%) and large size of house (8.7%) respectively. Table 1 clearly depicts that majority of the farm families (70.0%) had high material possession (household assets) followed by medium (23.6%) and low (6.3%).

**Table 1: Physical capital of farm families**

Variables	Sonipat (n=150)		Karnal (n=150)		Total (n=300)	
	f	(%)	f	(%)	f	(%)
<b>House ownership</b>						
Own	150	100.0	150	100.0	300	100.0
Rented	0	0.0	0	0.0	0	0.0
<b>Type of house</b>						
<i>Kutcha</i>	0	0.0	0	0.0	0	0.0
<i>Semi-pucca</i>	93	62.0	34	22.7	127	42.3
<i>Pucca</i>	57	38.0	116	77.3	173	57.7
<b>Size of house</b>						
Small (d" 100 sq m)	52	34.7	73	48.7	125	41.6
Medium (200-400 sq m)	98	65.3	64	42.7	162	54.0
Large (e" 400 sq m)	0	0.0	13	8.7	13	4.3
<b>Household assets</b>						
Low	14	9.3	5	3.3	19	6.3
Medium	23	15.3	48	32.0	71	23.6
High	113	75.3	97	64.7	210	70.0
<b>Transport and communication means</b>						
Low (0-5)	13	8.7	21	14.0	34	11.3
Medium (6-10)	79	52.7	35	23.3	114	38.0
High (11-15)	58	38.6	94	62.7	152	50.7
<b>Size of land</b>						
Less than 1 acre	4	2.7	0	0.0	4	1.3
1-2.5 acres	22	14.7	18	12.0	40	13.3
More than 2.5-5 acres	124	82.6	132	88.0	256	85.3

<b>Land ownership pattern*</b>						
Own land	150	100.0	150	100.0	300	100.0
Share and joint farming	38	25.3	26	17.3	64	21.3
Rented farmland	71	27.3	42	28.0	113	37.6
<b>Access to irrigation</b>						
Fully irrigated	142	94.6	147	98.0	289	96.3
Semi-irrigated	8	5.3	3	2.0	11	3.6
Dry land	0	0.0	0	0.0	0	0.0
<b>Source of irrigation*</b>						
Tube well	135	90.0	142	94.6	277	92.3
Canal	102	68.0	140	93.3	242	80.6
Rain fed	0	0.0	0	0.0	0	0.0

\*Multiple response

Data regarding means of transportation and communication shows that in Sonipat district, 52.7 per cent of the farm families had medium transportation and communication means followed by high (38.6%) and low (8.7%). While in Karnal district, 62.7 per cent of the sample households had high transportation and communication means followed by medium and low (23.3% and 14.0% respectively). In pooled sample, 50.7 per cent of the farm families were having high transportation and communication means followed by medium and low (38.0% and 11.3% respectively).

A glance at the table 1 further shows that most of the sample households in both the study areas (82.6%, 88.0%) were having more than 2.5-5 acre of land followed by 1-2.5 acre in both the districts (14.7%, 12.0%) respectively.

As regards land ownership pattern of farm families, although all the sample households were having their own land in both the districts, but 27.3 per cent of the respondents were also having rented farmland for farming and 25.3 per cent of the farm families did share and joint farming in Sonipat district while in Karnal district 28.0 per cent of the families were having rented farmland and 17.3 per cent of the farm families did shared and joint farming for increasing their farm income.

As far as access to irrigation was concerned, findings in table 1 depict that 94.6 per cent of farm

families in Sonipat and majority 98.0 per cent of farm families in Karnal reported fully irrigated area. It is obvious from the table 11 that a great majority of the sample households (90.0%) used tubewell as irrigation source in Sonipat district but in Karnal district main irrigation source was tubewell (94.6%) as well as canal (93.3%). Sinha (2011) indicate that majority of households (89.7%) families had their own house and cent per cent had their own land and they used tubewell for irrigation. Hoque (2015) reported that cent per cent of the sample respondents in the char areas of Barpeta and Jorhat districts have their own house.

Table 2 indicates the data regarding mean physical capital scores of Sonipat and Karnal districts. It is clear from table 12 that physical capital score in terms

**Table 2: Mean physical capital scores of farm families**

<b>Variables</b>	<b>Sonipat WMS</b>	<b>Karnal WMS</b>
House ownership	2.0	2.0
Type of house	2.38	2.77
Size of house	1.65	1.6
Household assets	2.66	2.61
Transport and communication means	2.3	2.49
Size of land	2.8	2.88
Land ownership pattern	2.43	2.56
Access to irrigation	2.94	2.98
Source of irrigation	2.57	2.50
<b>Overall</b>	<b>2.41</b>	<b>2.79</b>

WMS: Weighted Mean Score

**Low:** 1.00 - 1.66

**Medium:** 1.67- 2.33

**High:** 2.34 – 3.00

of type of house (WMS- 2.38, 2.77), household assets (WMS- 2.66, 2.61), size of land (WMS- 2.8, 2.88), land ownership pattern (WMS- 2.43, 2.56), access to irrigation (WMS- 2.94, 2.98), source of irrigation (WMS- 2.57, 2.50), were found to be high in both Sonipat and Karnal districts. Scores for house ownership was found medium in both the districts (WMS- 2.0, each), but transport and communication means were found high in Karnal (WMS- 2.49), but medium in Sonipat (WMS- 2.3) respectively.

### Financial capital

The findings in table 3 depict that majority of the selected farm families had livestock for subsidiary source of income in Sonipat (60.6%), Karnal (84.6%) and aggregate (72.6%). More than half of the sample

households (63.0%) were having their income from pension/government aid/other remittances. Further majority (58.7%) of the sample households in total had their income from service/business in addition to farming.

It can be observed from Table 3 that considerable percentage (52.0%) of the farm families in Sonipat district perceived themselves in higher income level category while in Karnal 62.0 per cent of the sample households considered themselves in middle income level.

The survey data regarding saving of households reveals that in total sample, 70.3 per cent of the households had savings upto Rs. 40,000, followed by 22.6 per cent who had savings from Rs. 40,001 to

**Table 3: Financial capital of farm families**

Variables	Sonipat (n=150)		Karnal (n=150)		Total (n=300)	
	f	(%)	f	(%)	f	(%)
<b>Subsidiary income sources*</b>						
Services/Business	82	54.7	94	62.7	176	58.7
Livestock	91	60.6	127	84.6	218	72.6
Pensions/govt.aid/other remittances	73	48.6	116	77.3	189	63.0
<b>Self-perceived economic status</b>						
Lower income level	40	26.7	12	8.0	52	17.3
Middle income level	32	21.3	93	62.0	125	41.7
Higher income level	78	52.0	45	30.0	123	41.0
<b>Saving of households (Rs.)</b>						
Upto Rs. 40,000	123	82.0	88	58.7	211	70.3
Rs. 40,001-80,000	25	16.6	43	28.7	68	22.6
Above Rs. 80,001	2	1.3	19	12.6	21	14.0
<b>Forms of saving*</b>						
Saving account/FD	119	79.3	127	84.7	246	82.0
Jewellery	8	5.3	13	8.7	21	7.0
Life Insurance	24	16.0	32	21.3	56	18.7
<b>Livestock possession</b>						
No livestock	0	0.0	0	0.0	0	0.0
Upto 4 livestock	107	71.3	51	34.0	158	52.6
More than 4 livestock	43	28.7	99	66.0	142	47.3
<b>Agricultural assets</b>						
Low (0-5)	67	44.6	36	24.0	103	34.3
Medium (6-10)	78	52.0	112	74.6	190	63.3
High (11-15)	5	3.3	2	1.3	7	2.3

\*Multiple response

80,000 and only 14.0 per cent of the farm families had savings above Rs. 80,001. Similar trend was recorded in both the districts. In case of forms of savings rural families saved their money in different forms like banks, fixed deposit, jewellery, life insurance etc. Majority of the farm families (82.0%) saved their money in the form of fixed deposit, 18.7 per cent had life insurance and only 7.0 per cent of the farm families saved their money in the form of jewellery.

A glance at the table 3 also shows that 71.3 per cent of the farm families possessed upto 4 livestock while 28.7 per cent had more than 4 livestock in Sonipat district whereas in Karnal district 66.0 per cent of the farm families owned more than 4 livestock and 34.0 per cent sample households had upto 4 livestock.

In Sonipat district little more than half (52.0%) of farm families had medium possession of agricultural assets followed by low (44.6%) and high (3.3%) while in Karnal majority (74.6%) of farm families had medium followed by low (24.0%) and high (1.3%). In pooled sample also, an overwhelming majority i.e. 63.3 per cent of the farm families had medium agricultural assets followed by low (34.3%) whereas very few respondents had high level of agricultural assets (2.3%). The findings are in line with Pal *et al.* (2009) and Bijalwan *et al.* (2011) who observed that majority of the respondents possessed up to 5 livestock, followed by more than 5 livestock. Holding good number of livestock could be attributed to the fact that livestock rearing was the most preferred secondary occupation. Livestocks support agriculture and allied activities besides providing nutritional, social, economic, religious and recreational benefits to the people. Pradeepa (2014) reported that majority of households had upto 6 livestock and their other subsidiary income sources were pension, livestock, service etc.

Mean financial capital scores of farm families has been presented in Table 4. It is clear from table 4 that in Sonipat district, most of the parameters of financial capital fell in medium category i.e. subsidiary income

sources (WMS-2.03), self-perceived economic status (WMS-2.25), livestock possession (WMS- 2.28), agricultural assets (WMS- 1.58). However, form of saving was found to be of high level (WMS- 2.73) while total savings of households were of low level (WMS- 1.19). Similar trend was observed in Karnal district except that self-perceived economic status (WMS- 2.22) and livestock possession (WMS- 2.66) were high in Karnal while these were found medium in Sonipat district. Overall mean score of financial assets was found medium in both the districts, Karnal having higher score (2.15) as compared to Sonipat.

**Table 4: Mean financial capital scores of farm families**

Variables	Sonipat WMS	Karnal WMS
Subsidiary income sources	2.03	2.10
Self-perceived economic status	2.25	2.22
Saving of households	1.19	1.54
Forms of saving	2.73	2.66
Livestock possession	2.28	2.66
Agricultural assets	1.58	1.77
<b>Overall</b>	<b>2.01</b>	<b>2.15</b>

WMS: Weighted Mean Score

**Low:** 1.00 - 1.66

**Medium:** 1.67- 2.33

**High:** 2.34 -3.00

### Economic security

The findings in the Table 5 depict that a considerable percentage (48.0%) of farm families were having annual income ranging between Rs. 2,00,001-3 lakh followed by Rs. 3,00,001-4 lakh (38.0%) and above 4 lakh (14.0%) whereas in Karnal district, fifty two per cent of sample households had annual income ranging between Rs. 3,00,001-4 lakh followed by Rs. 2,00,001-3 lakh (28.7%) and above Rs. 4 lakh (19.3%) respectively.

Possessions of productive assets were categorized in two heads- livestock and land. A glance at the Table 5 shows that in Sonipat district, 55.3 per cent of sample households had livestock values in between Rs. 60,001-90,000 followed by Rs. 30,001-60,000 (30.7%), Rs. 90,001-1,20,000 (11.3%) and upto Rs.30,000 (2.7%). In Karnal district, majority (65.3%)

**Table 5: Economic security of farm families**

Variables	Sonipat (n=150)		Karnal (n=150)		Total (n=300)	
	f	(%)	f	(%)	f	(%)
<b>Household annual income</b>						
Upto Rs. 1 lakh	0	0.0	0	0.0	0	0.0
Rs. 1,00,001-2 lakh	0	0.0	0	0.0	0	0.0
Rs. 2,00,001-3 lakh	72	48.0	43	28.7	115	38.3
Rs. 3,00,001-4 lakh	57	38.0	78	52.0	135	45.0
Above Rs. 4 lakh	21	14.0	29	19.3	50	16.6
<b>Possession of productive assets</b>						
Livestock						
Upto Rs. 30,000	4	2.7	11	7.3	15	5.0
Rs. 30,001-60,000	46	30.7	98	65.3	144	48.0
Rs. 60,001-90,000	83	55.3	32	21.3	115	38.3
Rs. 90,001-1,20,000	17	11.3	9	6.0	26	8.7
Above Rs. 1,20,000	0	0.0	0	0.0	0	0.0
<b>Land</b>						
Upto Rs. 20 lakh	0	0.0	0	0.0	0	0.0
Rs. 20,00,001- 25 lakh	34	22.6	26	17.3	60	20.0
Rs. 25,00,001- 30 lakh	89	59.3	117	78.0	206	68.6
Rs. 30,00,001- 35 lakh	18	12.0	5	3.3	23	7.7
Rs. 35,00,001- 40 lakh	9	6.0	2	1.3	11	3.6
<b>Possession of unproductive assets</b>						
Gold						
Upto 50 gm	13	8.6	5	3.3	18	6.0
51-100 gm	88	58.6	67	44.6	155	51.7
101-150 gm	49	32.7	53	35.3	102	34.0
151-200 gm	0	0.0	25	16.7	25	8.3
Above 201gm	0	0.0	0	0.0	0	0.0
<b>Value of residential property</b>						
Upto Rs.3 lakh	86	57.3	98	65.3	184	61.3
Rs. 3,00,001- 6 lakh	52	34.7	43	28.7	95	31.7
Rs. 6,00,001- 9 lakh	12	8.0	9	6.0	21	7.0
Rs. 9,00,001- 12 lakh	0	0.0	0	0.0	0	0.0
Above Rs. 12 lakh	0	0.0	0	0.0	0	0.0
<b>Household currently in debt</b>						
No	59	39.3	83	55.3	142	47.3
Yes, a little	77	51.3	25	16.7	102	34.0
Moderate amount	14	9.3	42	28.0	56	18.7
High amount	0	0.0	0	0.0	0	0.0
Unmanageable	0	0.0	0	0.0	0	0.0
<b>Level of satisfaction with current financial condition</b>						
Satisfied	13	8.6	59	39.3	72	24.0
Somewhat satisfied	24	16.0	12	8.0	36	12.0
Don't know	19	12.7	26	17.3	45	15.0
Somewhat dissatisfied	53	35.3	21	14.0	74	24.6
Dissatisfied	41	27.3	32	21.3	73	24.3

of the sample households had livestock of worth Rs. 30,001-60,000 followed by Rs. 60,001-90,000 (21.3%), upto Rs. 30,000 (7.3%) and Rs. 90,001-1,20,000 (6.0%) in form of productive assets.

As regards value of land, it can be seen from the Table 5 that an overwhelming percentage (68.6%) of farm families had land estimated worth of Rs. 25,00,001- 30 lakh followed by Rs. 20,00,001- 25 lakh (20.0%). Few farm families had land worth of Rs. 30,00,001- 35 lakh (7.7%) and Rs. 35,00,001- 40 lakh (3.6%) in the form of productive assets.

As far as possession of unproductive assets was concerned, it was categorized in two heads- gold and value of residential property. It can be seen from the Table 5 that in pooled sample, 51.7 per cent of farm families had gold jewellery of 51-100 gm followed by 101-150 gm (34.0%). Less than ten per cent farm families had 151-200 gm (8.3%).

Table 5 clearly predict that majority (61.3%) of farm families had residential property of worth upto Rs. 3 lakh followed by more than Rs. 3,00,001- 6 lakh (31.7%) and more than Rs. 6,00,001- 9 lakh (7.0%). Similar data was observed in both the districts.

Table 5 further pinpoint that less than half (47.3%) of the farm families reported that they were not in debt, 34.0 per cent of farm families were in little debt, only 18.7 per cent farm families had moderate amount of debt. None of the farm families had high and unmanageable debt.

For measure the level of satisfaction of farm families their self-opinion was recorded and on the basis of Table 5 brings to the light that about 35.3 per cent of selected farm families in Sonipat district were somewhat dissatisfied with their current financial condition followed by dissatisfied (27.3%), somewhat satisfied (16.0%), don't know (12.7%). Only 8.6 per cent of families were satisfied with their current financial condition. In Karnal district, about 39.3 per cent of farm families were satisfied followed by dissatisfied (21.3%), don't know

(17.3%), somewhat dissatisfied (14.0%) and somewhat satisfied (8.0%) with their current financial condition. Shyamalie (2008) in a comparative study of hills of India and Sri Lanka and found that except savings, level of productive and unproductive assets and other indicators obtained low scores in both study districts. The score of productive assets was slightly higher in Kangra. However, the composite index score of the overall economic security in Kangra (2.04) showed a lower value than the sample of NuwaraEliya district (2.15), indicating greater vulnerability of women in Kangra district to economic insecurity.

## CONCLUSION

The study concludes that cent per cent of families had their owned house, having high household assets, were having more than 2.5-5 acre of fully irrigated land. Majority of families had their subsidiary income source from livestock, saved money in saving account/ FD, had medium agricultural assets. Most of farm families had land and livestock as productive assets and gold and residential property as unproductive assets.

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## REFERENCES

- Bijalwan, A., Sharma, C.M. and Kediya, V.K. 2011. Socio-economic status and livelihood support through traditional agroforestry systems in hill and mountain agro-ecosystem of Garhwal Himalaya. *The Indian Forester*. 138 (12): 1423-1430.
- Chand, R., Prasanna, P.A. and Singh, A. 2011. Farm size and productivity: Understanding the strengths of smallholders and improving their livelihoods. *Economic and Political Weekly*. 46 (3): 26-27.
- DFID. 1999. Sustainable livelihoods guidance sheets: The livelihoods learning platform. [www.livelihoods.org](http://www.livelihoods.org).
- Hoque, M.D. 2015. A Study of livelihood pattern in the socio-economic milieu of char areas in Assam.

Ph.D. Thesis (Unpublished), Gauhati University, Guwahati.

Pal, G., Bhagat, M. L. and Bhattacharya, A. 2009. Socio-economic characteristics of lac growers in Jharkhand. *MANAGE Extension Research Review*. 8 (6): 61-68.

Pradeepa, B.P. 2014. Livelihood security of farmers in Karnataka: An econometric analysis. Ph.D. Thesis (Unpublished), University of Mysore, Manasagangothri.

Shyamalie, H.W. 2008. Socio-economic status and livelihood security of women: comparative study of

hills of India and Sri Lanka. Ph.D. Thesis (Unpublished), CSK Himachal Pradesh *Krishi Vishvavidyalaya*, Palampur.

Sinha, M.K. 2011. Ethnobotany in relation to health and livelihood security in district Bastar of Chhattisgarh State. Ph.D. Thesis (Unpublished), Pt. Ravishankar Shukla University, Raipur.

Wadhwa, S. C. 2008. Agricultural lending as a sound business strategy for commercial banks. *Journal of Indian Institute of banking and finance*, Jan - March 2008: 23. [www.iibf.org.in](http://www.iibf.org.in)