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Constraints faced by small and marginal farmers in attaining livelihood security

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Abstract

The study was carried out in Betul district of Madhya Pradesh with the specific objectives to measure the socio-economic and personal attributes of small and marginal farmers along with the constraints associated with livelihood security among the selected farmers. The findings revealed that majority of respondents (51.20%) were belonged to the in middle age group, most of the respondents (31.25%) were having primary level of education, majority of the respondents (40.00%) were belongs to the OBC category, half of the respondents (50.00%) had medium size family). The study also reported that most (42.50%) of the respondents had possessed medium of livestock holding. The majority (52.50%) respondents had membership in one organization; most (47.5%) of the respondents had medium level of experience in farming. Further study shows that majority respondents (47.50%) were doing agriculture + labourer work. Whereas most (52.50%) of the respondents had low family income, majority (41.25%) respondents had medium level of cropping system and most (36.25%) of the respondents had medium level of mass media exposure. The important constraints responsible for attaining livelihood security were low market prices for the products, repeated crop failures and high costs of agriculture inputs as reported by the farmers.

Keywords: Constraints, small and marginal farmers, livelihood security

Introduction

Livelihood security, especially food security is the most important factor that determines the survival of humankind. Without food security, a nation cannot expect better life for its people. "Livelihood Security" can be defined as adequate and sustainable access to income and other resources to enable households to meet basic needs. This includes adequate access to food, potable water, health facilities, educational opportunities, housing, time for community participation and social integration (Frankenberger, 1996) [2]. The risk of livelihood failure determines the level of vulnerability of a household to income, food, health and nutritional insecurity. Therefore, livelihoods are secure when households have secure ownership of, or access to, resources and income earning activities, including reserves and assets, to offset risks, ease shocks and meet contingencies (Chambers, 1992) [3]. Unfortunately, not all households are equal in their ability to cope up with stress and repeated shocks. Poor people balance competing needs for asset preservation, income generation and present and future food supplies in complex ways (Maxwell and Smith, 1992) [6]. The livelihood security is a term which comprises of several other securities such as food security, economic security, educational security, social security, health security, institutional security and infrastructural security. All these securities are together contributing in achieving the overall livelihood security of a person. Keeping in view, present study was carried out in Betul district of Madhya Pradesh with following Specific objectives:-

1. To explore the socio-economic and personal attribute of small and marginal farmers.
2. To find out the constraints in attaining livelihood security.

Materials and Methods

The present research enterprise has carried out in the randomly selected Betul District of Madhya Pradesh. As the main emphasis of this study was is on livelihood security of small and marginal farmers. Based on number of household 10 marginal and 10 small farmers will be randomly selected from villages. First, a list of small and marginal household farmers has prepared from the villages in consultation with local leader and concerned block official. Amongst the list of small and marginal household 25 percentages of the respondents were randomly selected from each village. Thus, farmers of the four villages were finally

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constructed as 80 sample size for the study purposes. Suitable statistical tools are used to calculate factors associated with livelihood security among the small and marginal farmers.

Results and Discussion

Socio-economic and personal attribute of small and marginal farmers

Livelihood security of Small and Marginal farmers in Betul

district of Madhya Pradesh” was studied in which livelihood security is taken as a dependent variable and twelve variables namely, age, education, caste, family size, size of land holding, livestock holding, social participation, experience in farming, occupation, annual family income, cropping system and mass media exposure were selected as independent variables.

Table 1: Socio-economic and personal attribute of small and marginal farmers.

A. Distribution of respondents according to their age (N=80)			
Age group (in years)	f	%	Mean value
Young age (up to 35years)	15	18.80	47.55
Middle age (36 to 50 years)	41	51.20	
Old age (above 50 years)	24	30.00	
B. Distribution of respondents according to their education (N=80)			
Education Category	F	%	Mean value
Illiterate (1)	20	25.00	47.55
Primary (2)	25	31.25	
Middle school (3)	16	20.00	
High school (4)	8	10.00	
Higher secondary (5)	5	6.25	
Graduate & above (6)	6	7.50	
C. Distribution of respondents according to their caste (N=80)			
Categories of Caste	f	%	Mean value
ST	30	37.5	47.55
SC	14	17.50	
OBC	32	40.00	
GENERAL	4	5.00	
D. Distribution of respondents according to their family size (N=80)			
Category of family size	f	%	Mean value
Small (Up to 4 members)	35	43.75	5.35
Medium (5 to 8 members)	40	50.00	
Large (More than 8 members)	5	6.25	
E. Distribution of respondents according to their size of land holding (N=80)			
Category of land holding	f	%	Mean value
Marginal (up to 2.5 acres)	40	50.00	3.00
Small (2.51-5 acres)	40	50.00	
F. Distribution of respondents according to their livestock holding (N=80)			
level of Livestock holding	f	%	Mean value
Low (< 2.88)	27	33.75	4.00
Medium (2.88 - 5.33)	34	42.50	
High (> 5.33)	19	23.75	
G. Distribution of respondents according to their social participation (N=80)			
Categories of Social participation	f	%	Mean value
No membership	13	16.25	47.55
Member in one organization	42	52.50	
Member in more than one organization	11	13.75	
Office bearer in one organization	7	8.75	
Office bearer in more than one organization	7	8.75	
H. Distribution of respondents according to their Experience in farming (N=80)			
Experience in farming (in years)	f	%	Mean value
Low (< 18.87)	19	23.75	22.68
Medium (18.87 – 26.93)	38	47.52	
High (> 26.93)	23	28.75	
I. Distribution of respondents according to their occupation (N=80)			
Occupation	f	%	Mean value
Agriculture alone	16	20.00	47.55
Agriculture + Animal husbandry	7	8.75	
Agriculture + service	6	7.50	
Agriculture + Animal husbandry + Labourer work	8	10.00	
Agriculture + Business	5	6.25	
Agriculture + Labourer work	38	47.50	
J. Distribution of respondents according to their annual family income (N=80)			
Annual family income (in rupees)	f	%	Mean value
Low (<50,000)	42	52.50	

Medium (50-1,00,000)	33	41.25	58672.50
High (>1,00,000)	5	6.25	
K. Distribution of respondent according to their cropping system (N=80)			
Cropping system	f	%	Mean value
Low (< 15.82)	24	30.00	16.37
Medium (15.82 – 17.72)	33	41.25	
High (> 17.72)	23	28.75	
L. Distribution of respondents according to their mass media exposure (N=80)			
Mass media exposure	f	%	Mean value
Low (< 19.16)	24	30.00	20.49
Medium (19.16 -21.86)	29	36.25	
High (> 21.86)	27	33.75	

Age

The perusal of the Table indicates that the majority (51.20 percent) of respondents were in middle age group followed by the old age and young age group which accounts for 30 and 18.80 percent respectively. It is clear from the data that the majority of the respondents (51.20 percent) were from middle age group, which indicates that mostly agricultural activities are performed by this age group of farmers and younger generation has least participation in agriculture activities. This finding has been supported by findings of Lal (2014)^[5] and Preeti (2018)^[7].

Education

The Table 2 indicates that majority of the respondents (31.25 percentage) were having primary level of education followed by 25 percentage respondents were having illiterate, middle level of education (20 percentage), 10 percentage respondents had high school, 6.25 percentage respondents had higher secondary school and graduate & above level of education (7.5 percentage).

These findings of the study are consistent with Rai (2015)^[8] and Arya (2018)^[1], who were also found that majority of respondent having primary level of education.

Caste

The results of table 3 revealed that most of the respondents (40 percentage) were belongs to the OBC category, followed by 37.5, 17.5 and 5 percent of the respondents in the ST, SC and in the general categories respectively. This conclusion was supported by results of Lal (2014)^[5] and Preeti (2018)^[7].

Family size

The data presented in table 4 showed that most of the respondents (50 percent) had medium size family followed by 43.75 and 6.25 percentage had small and big size families respectively. Therefore, from the above results it can be concluded that majority of the respondents (93.75 percent) had medium to small size family. The possible reason for this finding that majority of the respondents might have adopted family planning and lived with their parents as Indian culture. The results of Roy *et al.* (2013)^[9] support this finding.

Size of land holding

The table 5 shows that the frequency distribution of respondents on the basis of size of land holding. The selected respondents were classified into two groups as mentioned in the table. Here, it is quite clear that 50.00 percent respondents were found marginal as well as same percent respondents were also found small level of size of land holding.

Livestock holding

The table 6 reveals that majority of the respondents (42.50 percent) had possess medium of livestock holding followed by 33.75 and 23.75 percent had low and high category of livestock holding, respectively. This might be because the respondents have small to marginal land holding and have animal husbandry as a most common occupation to supplement family income in order to reduce the risk and secure family livelihood. This study is similar to finding of Sabapara *et al.* (2014)^[10] and Rai (2015)^[8].

Social participation

The result of table 7 revealed that majority of the respondent (52.50 percent) had membership in one organization followed by 16.25, 13.75, 8.75 and 8.75 percent of them had no membership, more than one organization, office bearer in one organization and office bearer in more than one organization, respectively. It is clear from the results that a huge majority of the respondents (52.50 percent) were having membership in at least one organization. The finding support with the results of Sabapara *et al.* (2014)^[10] and Rai (2015)^[8].

Experience in farming

The perusal of table 8 revealed that majority (47.5 Percentage) of the respondents had medium level of experience in farming, followed by high and low level of experience which accounts 28.75 and 23.75 percent, respectively. It is observed from the finding that majority of the farmers had medium level of farming experiences which indicates that respondents have optimum expertise in reducing risk and securing livelihood of their family. This study is similar to finding of Senthil (2013)^[11] and Swathi (2016)^[12].

Occupation

The table 9 revealed that 47.50 percent of respondents were doing agriculture + labourer work while, 20.00 percent were doing agriculture alone, 10.00 percent had agriculture + animal husbandry + labourer work, while 8.75 percent had agriculture + animal husbandry, 7.5 percent had agriculture+ service, and remaining 6.25 percent found to have agriculture + business. It is clear from the finding that majority of the respondents (47.5 percent) had Agriculture+ labourer work as their occupation. The possible reason for this finding may be that the respondents had small to marginal land holdings to supplement their income to sustain the livelihood.

Annual family income

The result presented in Table 10 revealed that majority of the respondents (52.50 percent) had low family income followed by 41.25 and 6.25 percent of them had medium family income and high family income, respectively. Thus, from the result it

can be inferred that majority of the respondents (93.75 percent) had low to medium family income. The probable reason might be that respondent had limited resources for income generation. This study is similar to finding of Lal (2014)^[5] and Rai (2015)^[8].

Cropping system

It is evident from table 11 that majority of the 41.25 percent respondents had medium cropping system followed by 30.00 and 28.75 percent of them had low cropping and high cropping system, respectively. It revealed from the study that majority (71.25 percent) of the respondents had adopted medium to low level of cropping system which might be due to the low investment capacity and low level of knowledge about the importance of cropping system regarding livelihood security

Mass media exposure

The results presented in table 12 reveals that 36.25 percent of the respondents had medium level of mass media exposure

followed by 33.75 and 30.00 percent respondents had low and high level of mass media exposure, respectively. It is observed from the study that maximum percentage of the respondents had medium to high level of mass media exposure. It might be due to the respondent were quite aware about prevalent mass media in the study area. This conclusion was supported by results of Lal (2014)^[5] and Eqbal (2015)^[4].

Constraints faced by small and marginal farmers in attaining the livelihood security

Constraint refers to situation or circumstances which restrict the performance of an individual. To assess the constraint in achieving the livelihood security among the small and marginal farmers, the "Garrett Ranking Method" was used and gave rank according to their mean value. The constraints faced by respondents were categorized into four categories i.e technical, economic, communicational and miscellaneous constraints faced by them in attaining the livelihood security.

Table 2: Constraints in attaining livelihood security

Technical constraints			
S. No.	Statements	Mean value	Rank
1.	Lack of awareness of appropriate technologies and technical knowledge to improve crop productivity.	48.17	I
2.	Lack of proper guidance / training workers before any new initiative / venture starts.	36.9	II
3.	Lack of awareness about the healthy practices such as spraying, application of fertilizers, milking, husbandry management etc.	33.1	III
4.	Lack of information on scientific crop management practices like dodge fertilizer / insecticide / pesticide, optimum space, land preparation.	26.36	IV
5.	Lack of awareness about the Schemes / Subsidy for agribusiness / Animal Husbandry.	14.38	V
6.	Non-availability of agricultural machinery and equipment's.	7.03	VI
Economic constraints			
S. No.	Statements	Mean value	Rank
1.	Low market prices for the products.	60.67	I
2.	Lack of credit available to the farmers.	36.35	II
3.	High costs of farming inputs.	25.01	III
4.	Lack of employment during off-season in the village.	23.48	IV
5.	High wage for labour.	10.91	V
6.	In case of crop damage / livestock death, delay in obtaining insurance.	5.9	VI
Communicational constraints			
S. No.	Statements	Mean value	Rank
1.	Lack of information on the product's marketing.	43.48	I
2.	Discussion by the higher authorities / scientists during Krishi Goshti, field issues get low priority.	33.8	II
3.	Lack of farmers participation in different programs such as Kisan Mela, demonstration, training, community meetings, etc.	23.76	III
4.	Lack of extension functionaries for giving any new information about new technologies.	22.05	IV
5.	Lack of regular and effective training for upgrading the technological know-how.	6.8	V
6.	Lack of mobile towers / telecom services and Internet access.	2.5	VI
Miscellaneous constraints			
S. No.	Statements	Mean value	Rank
1.	Repeated crop failures.	59.49	I
2.	Bad / improper reaction from bank / money loan workers when taking out loan / debt from them.	52.7	II
3.	Higher interest rates paid for taking a loan from institutions that lend money.	30.33	III
4.	Lack of non - availability of inputs such as seeds, feeds, fodder, pesticides etc.	30.22	IV
5.	Lack of assured sources of plant protection measures.	22.12	V
6.	Lack of assured sources of irrigation.	20.53	VI
7.	Repeated crop failures.	59.49	I

Technical constraints perceived by the respondents

The data presented in table 13 indicates that six technical constraints and the rank pattern experienced by the respondents. Out of six constraints perceived by them, first rank was assign to the "lack of awareness of appropriate technologies and technical knowledge to improve crop productivity (mean score 48.17)".It might be due to many

respondents were not much aware about the new technologies and techniques in the agricultural and livestock production through which they could improve their respective productions and can get good returns.The other constraints perceived by the respondents in order of their importance in descending order.

Economic constraints perceived by respondents

The results of table 14 revealed that six different economic constraints experienced by the respondents for attaining the livelihood security. The first rank was assigned to the constraints “low market prices for the products (mean score 60.67)” since, over time the costs of agricultural inputs have risen tremendously leading to increases in the total costs of agricultural and livestock production, but at the same time, prices for various agricultural and livestock products have not been risen proportionately, as a result of which respondents have suffered significant losses in agricultural production. The second rank was given to the lack of credit available to the farmers. The other constraints perceived by the respondents in order of their importance in descending order

Communicational constraints perceived by respondents

The results presented in table 15 indicates that communicational constraints experienced by the respondents in respect of attaining livelihood security. Lack of information on product’s marketing was ranked first as their as their mean score 43.48 observed highest. The last rank was given to the constraints lack of mobile towers / telecom services and Internet access although it is also an important constraints perceived by the respondents

Miscellaneous constraints perceived by respondents

The various miscellaneous constraints and rank pattern experienced by the respondents for attaining the livelihood security. First constraints perceived by respondent were repeated crop failures (mean score 59.49)” because agriculture is totally dependent on nature, farmers have been faced with many natural and unforeseen calamities that they did not anticipate, resulting in severe losses. The other constraints perceived by the respondents in descending order of their importance. The last rank was given to the constraints lack of sufficient infrastructural facilities such as adequate market, roads, electricity, transport facilities etc.

Conclusion

On the basis of above findings the study finally concluded that majority of the respondents belongs to middle age group, OBC category, having primary level of education, medium family size, medium level of livestock holding, medium level of farming experience, medium level of annual family income, medium level of cropping system and medium level of mass media exposure. Lack of awareness of appropriate technologies and technical knowledge to improve crop productivity, low market prices for the products, lack of information on the product's marketing, and repeated crop failures were the top most constraints experienced by the respondent for attaining livelihood security. The study suggested that there is a need of improving basic infrastructural facilities, viz. irrigation supply, market facilities, employment opportunities, cold- storage, warehouse etc. and to overcome the constraints faced by small and marginal farmers for improving the overall livelihood security level of the farmers.

References

1. Arya. S In his study on livelihood security of small and marginal farm families of Ambala division of Haryana state. Unpublished Ph.D. thesis; CCSHAU, Hisar, 2018.
2. Frankenberger T. Measuring household livelihood

security: an approach for reducing absolute poverty. Food Forum, No. 34. Washington, DC, USA, 1996.

3. Chambers R, Conway G. Sustainable livelihoods: practical concepts for the 21st century. IDS Discussion Paper 296. Institute of Development Studies: Brighton, 1992.
4. Eqbal Md. S. An Assessment of Livelihood Security through Dairying among Tribal of Jharkhand. Unpublished Ph.D. thesis; NDRI, Karnal, 2015.
5. Lal SP. Assessment of Livelihood Security and Resilience among Farmers affected by National Calamity in Bihar. Unpublished M.Sc. thesis; NDRI, Karnal, 2014.
6. Maxwell S, Smith M. Household food security: a conceptual review. In S. Maxwell and T. Frankenberger, eds. Household food security: concepts, indicators, and measurements: a technical review. New York, NY, USA and Rome, UNICEF and IFAD, 1992.
7. Preeti. In her study on Livelihood Security of Small and Marginal Farm Families in Hisar Division of Haryana State. Unpublished Ph.D. thesis; CCSHAU, Hisar, 2018.
8. Rai SK. Agricultural diversification for livelihood security of rural people of south Gujarat. Unpublished Ph.D. thesis, 2015.
9. Roy ML, Chandra N, Kharbikar HL, Joshi P, Jethi R. Socio-economic status of Hill Farmers: An exploration from Almora district in Uttarakhand. International Journal of Agriculture and Food Science Technology. 2013;4(4):353-358.
10. Sabaparati GP, Fulsoundar AB, Kharadi VB. Personal and socio-economic characteristics of dairy animal owners and their relationship with knowledge of dairy husbandry practices in Surat district of Gujarat. Journal of Animal Research. 2014;4(2):175-186.
11. Senthil A. Effectiveness of advanced communication contrivances in transfer of technology among tribal farmers - An experimental study. Ph. D Thesis. AC&RI, TNAU, Coimbatore, 2013.
12. Swathi G. A study on Livelihoods of tribal farmers in Andhra Pradesh. Unpublished Ph.D. thesis; ANGRAU, Bapatla, 2016.