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## Livelihood problems and opportunities of farm families Ambala division of Haryana state

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### Abstract

The present investigation entitled “Livelihood problems and opportunities of farm families Ambala Division of Haryana State” was conducted in Ambala division of Haryana state. Two districts viz. Ambala and Yamunanagar were selected randomly from Ambala division. One block from each district viz. Sadhora block from Ambala and Nareingarh block from Yamunanagar district were selected randomly. Two villages from each block viz. Rajpur and Nashera from Sadhora block, Sain Majra and Badi Ujjal from Nareingarh were selected randomly. Seventy five small and marginal farmers were selected randomly from each village and thus 300 farm families constitute the sample size for present study. Statistical tools like frequency, percentages, weighted mean score, ranking and co-relation coefficient were applied for data analysis. Sixteen independent variables and two dependent variables were selected for study purpose. Livelihood security index was medium level for almost all the security but the score for nutritional security was low among all of them. Major problems faced by the farm families of Ambala district related to government followed by climate change, agriculture, household and market respectively. Whereas major problems related to Yamunanagar district was related to market, climate change, government, agriculture and household respectively. Major opportunities perceived by farm families of both districts was same i.e related to household followed by community resources, farm practices and provided by government respectively. Human, social, natural, physical and financial capital were found to be positively and significantly co-related with age, family size, family education status, size of house, occupation, annual income, size of land, social participation and information source utilization. Same trends were observed in all types of security chosen for study purpose viz. food, nutritional, economic, shelter/water and sanitation, health, education security and access to institution.

**Keywords:** Livelihood, problems, opportunities, farm, families

### Introduction

Agriculture plays a pivotal role in India economy. Its contribution to gross domestic product is around one sixth. It provides employment to 56 per cent of Indian workforce. In Haryana, the contribution of agriculture sector in total Net State Domestic Product (NSDP) decreased over the period due to high growth in manufacturing and industry sector and slower rate of growth in agriculture sector of the state. The share of agriculture employment also decreased due to expanding of non-farming activities in the state. The growth of commercial crops has significant potential for promoting exports of agricultural commodities and brings faster development in agro based industries. Agriculture not only contributes to overall growth of the economy but reduce poverty by providing employment and food security to majority of the population in the country. Thus agriculture is the largest providers of livelihood in rural India. Haryana is the land of small and marginal farmers. They constitute more than 80 per cent of agrarian population. Sustainable agriculture growth and food security depends on the performance of small and marginal farmers. Small and marginal farmers are more efficient than large farmers in term of per hectare output Chand *et al.* 2011. Sustainable agriculture growth and food security of the nation depends on the performance of small and marginal farmers. These farmers do farming by using the traditional technology. In traditional farming the cost of cultivation are so high that often the farmers can't recover even the money spent on agriculture. Since 1990s agriculture sector of the state has been shifting from accelerating to decelerating because it is non profitable and high risk, etc. National Crime Record Bureau (NCRB) indicates that the suicide rate among one lakh farmers in Haryana is 4.8 farmers. The proportion of farmer's suicide is 0.5 in comparison to general suicides of the state. Although, there are a number of reasons behind the suicidal rate of farmers. The main reasons are increase in cost of cultivation, indebtedness, climate change, surge in food grains prices. The problem of indebtedness damaged the social status of farmers and triggered to commit suicide. In India, on an average, one farmer commits suicide after every 30 minutes since 2002 (Sreedevi 2013) <sup>[2]</sup>, while in case of Haryana, suicide rate of farmers is 4.8 per one lakh farmers (NCRB).

Small and marginal farmers make larger contribution to the production of high value crops. They contribute around 60 per cent to the total production of vegetables, 55% to fruits against their share of 44% in land area (BIRTHAL *et al.* 2011) [3]. Their share in cereal production is 52% and 69% in milk production. Thus small and marginal farmers contribute to both diversification and food security. Small and marginal farmers depend on more than one resource and activity for earning their livelihood. They ensure food security by growing multiple cropping on a small piece of land, rearing animals and migrating to other cities as an unskilled labourer. Rural population has difficulty in accessing crucial information in forms they can understand in order to make timely decision. There is a concern that the gap between information rich and information poor is getting wider. New information and communication technologies are generating possible to solve the problems of rural poverty, inequality and giving an opportunity to bridge the gap between information rich and poor and support the sustainable development in rural and agricultural communities. In the modern era of information revolution, new technologies are revolutionizing the field of education. Access to information and improved communication is a crucial requirement for sustainable agriculture development.

### Methodology

The study was conducted in Haryana state. Haryana state has been divided into four divisions- Ambala, Hisar, Rohtak and Gurgoun divisions. The present study was conducted in Ambala Division which comprises of five districts *viz.*, Ambala, Kaithal, Kurukshetra, Panchkula and Yamunanagar out of five districts, two districts from Ambala division that is Ambala and Yamunanagar were selected randomly. One block from each district namely Sadhora from Yamunanagar district and Nargard from Ambal district were selected randomly. Two villages that is Rajpur and Nashera from Sadhora block and Badi Ujjal and Sain Majra were selected from Nareingarh block randomly. From the selected villages a sample of 75 small and marginal farm families were drawn

randomly. Thus a total of 300 respondents were selected randomly as a sample for the present study. Data were collected by the investigator with help of pre-structured interview schedule. Frequency, percentage, weighted mean score, overall mean score, co-relation coefficient were applied to draw the inferences from the collected data.

### Result and Discussion

Problems are the factors that impede the farmer's efforts to sustain their livelihood for betterment of their life. Small and marginal farmers face many problems related to agriculture, related to market, related to climate change and related to government and related to household. Frequencies, weighted mean scores were calculated and the rank were assigned accordingly. Average mean score was also calculated to find out the major problem related to livelihood. From the data presented in the Table 1 it is clear that major problems related to agriculture 'Small size of land' was ranked I with highest (WMS, 2.49), 'high labour cost' ranked II with (WMS, 2.42) and 'high cost of inputs' ranked III with WMS, 2.19.

It is also concluded that in problems related to household 'lack of capital' ranked I with highest weighted mean score (2.60), 'low education' ranked II with the WMS, 2.08. In problems related to government 'Low support price' ranked I with highest weighted mean score (2.46) and 'Broadcasting time of agricultural program is not suitable' ranked IV with weighted mean score (1.75), and in problems related to market, 'Price fluctuation of outputs' ranked the highest with WMS, 2.03, 'Poor access to market' ranked II with WMS, 1.83 and 'Lack of improved seeds and fertilizers' stands III (WMS, 1.76). Table 27 further indicated that problems related to climate change, 'soil fertility' ranked I with WMS 2.73, 'Unavailability of natural water bodies (canals, rivers)' ranked V with weighted mean score of 1.57. Major problems faced by farm families was related to government followed by climate change, agriculture, household and market with average mean score 2.08, 2.05, 2.04, 2.01 and 1.87 respectively.

**Table 1:** Livelihood problems faced by farm families in Ambala District

Sr. no	Category	Ambala (n=150)						
		Always (3)	Sometimes (2)	Never (1)	Weighted Frequency score	Weighted mean	Rank	Average Mean score
1.	<b>Problems related to agriculture</b>							
	Small size of land	91(60.67)	42(28.00)	17(11.33)	374	2.49	I	2.04
	Pest infestation	52(34.67)	75(50.00)	23(15.33)	329	2.19	III	
	Lack of farm implements	42(28.00)	83(55.33)	25(16.67)	317	2.11	IV	
	High labour cost	74(49.33)	65(43.33)	11(7.33)	363	2.42	II	
	High production cost	41(27.33)	62(41.33)	47(31.33)	294	1.96	V	
	Post harvest losses	12(8.00)	47(31.33)	91(60.67)	181	1.21	VII	
	High cost of inputs	65(43.33)	50(33.33)	35(23.33)	328	2.19	III	
	Low productivity of livestock	32(21.33)	54(36.00)	64(42.67)	268	1.79	VI	
2.	<b>Related to household</b>							
	Lack of capital	100(66.67)	40(26.67)	10(6.66)	390	2.6	I	2.01
	Large family size	18(12.00)	44(29.33)	88(58.67)	230	1.53	VI	
	Occurrence of illness	15(10.00)	114(76.00)	21(14.00)	294	1.96	IV	
	Poor access to resources	35(23.33)	70(46.67)	45(30.00)	290	1.93	V	
	Low education	51(34.00)	60(40.00)	39(26.00)	312	2.08	II	
	Lack of skill	40(26.67)	69(46.00)	41(27.33)	299	1.99	III	
3.	<b>Related to government</b>							
	Broadcasting time of agriculture program is not suitable	29(19.33)	54(36.00)	67(44.67)	262	1.75	IV	2.08
	Poor access to extension	20(13.33)	45(30.00)	85(56.67)	235	1.56	V	
	Lack of cold storage facilities	94(62.67)	23(15.33)	33(22.00)	361	2.41	II	
	No timely procurement	63(42.00)	70(46.67)	17(11.33)	340	2.26	III	
	Low support price	78(52.00)	63(42.00)	9(6.00)	369	2.46	I	

4.	Related to market							1.87
	Poor access to market	35(23.33)	55(36.67)	60(40.00)	275	1.83	II	
	Lack of improved seeds and fertilizers	20(13.33)	75(50.00)	55(36.67)	265	1.76	III	
	Price fluctuation of outputs	45(30.00)	65(43.33)	40(26.67)	305	2.03	I	
5.	Related to climate change							2.05
	Low rainfall	50(33.33)	83(55.33)	17(11.33)	333	2.22	II	
	Declining soil fertility	110(73.33)	40(26.67)	-	410	2.73	I	
	Crop damage by late heavy rain	24(16.00)	40(26.67)	86(57.33)	238	1.58	IV	
	Unavailability of natural water bodies (e.g. canals, rivers)	15(10.00)	55(36.67)	80(53.33)	235	1.57	V	
	Crop yield reduction due to drought effect	50(33.33)	75(50.00)	25(16.67)	325	2.17	III	

### Livelihood problems faced by farm families in Yamunanagar district

Problems are the factors that impede the farmer's efforts to sustain their livelihood for betterment of their life. Small and marginal farmers face many problems related to agriculture, related to market, related to climate change and related to government. Frequencies, weighted mean scores were calculated and the ranks order was assigned accordingly.

Average mean score was also calculated to find out the major problem related to livelihood.

From the data presented in the table 2 it is clear that major problems related to agriculture 'Small size of land' was ranked I with highest (WMS, 2.40), 'higher cost of inputs' ranked II with (WMS, 2.38 and 'high labour cost' ranked III with WMS, 2.28.

**Table 2:** Livelihood problems faced by farm families in Yamuna Nagar District

Sr. no	Category	Yamuna Nagar (n=150)						Average Mean score
		Always (3)	Sometimes (2)	Never (1)	Weighted Frequency score	Weighted Mean	Rank	
1.	<b>Problems related to agriculture</b>							2.15
	Small size of land	73	63	14	361	2.40	I	
	Pest infestation	59	51	50	329	2.19	IV	
	Lack of farm implements	49	53	48	301	2.00	VII	
	High labour cost	61	70	19	342	2.28	III	
	High production cost	58	53	39	319	2.12	VI	
	Post harvest losses	53	66	31	322	2.14	V	
	High cost of inputs	73	61	16	357	2.38	II	
	Low productivity of livestock	37	42	68	263	1.7	VIII	
2.	<b>Related to household</b>							2.10
	Lack of capital	140	10	-	440	2.93	I	
	Large family size	17	63	70	247	1.64	VI	
	Occurrence of illness	10	129	11	299	1.99	IV	
	Poor access to resources	40	60	50	280	1.93	V	
	Low education	46	79	25	321	2.14	II	
	Lack of skill	50	51	49	301	2.00	III	
3.	<b>Related to government</b>							2.22
	Broadcasting time of agriculture program is not suitable	49	63	38	309	2.06	IV	
	Poor access to extension	50	40	60	290	1.93	V	
	Lack of cold storage facilities	47	74	29	318	2.12	II	
	No timely procurement of input	62	58	30	390	2.6	III	
	Low support price	73	63	14	359	2.39	I	
4.	<b>Related to market</b>							2.41
	Poor access to market	48	73	29	319	2.12	III	
	Lack of improved seeds and fertilizers	79	55	16	418	2.78	I	
	Price fluctuation of outputs	67	66	17	350	2.33	II	
5.	<b>Related to climate change</b>							2.24
	Low rainfall	64	62	24	340	2.26	III	
	Declining soil fertility	70	62	28	362	2.41	II	
	Crop damage by late heavy rain	15	47	88	227	1.51	V	
	Unavailability of natural water bodies (e.g. canals, rivers)	119	31	-	419	2.79	I	
	Crop yield reduction due to drought effect	65	57	28	337	2.24	IV	

It is also concluded that in problems related to household 'lack of capital' ranked I with highest weighted mean score (2.93), 'low education' ranked II with the WMS, 2.14. In problems related to government 'Low support price' ranked I with highest weighted mean score (2.39) and 'lack of cold storage facilities' ranked II with weighted mean score (2.12) and in problems related to market, 'lack of improved seeds and fertilizers' ranked the highest with WMS, 2.78, 'price fluctuation of outputs' ranked II with WMS, 2.33 and 'poor

access to market 'ranked III (WMS, 2.12). Table 2 further indicated that problems related to climate change, 'Unavailability of natural water bodies (e.g. canals, rivers)' ranked I with WMS 2.79, 'Declining soil fertility' ranked II with weighted mean score 2.42 and 'low rainfall' ranked III (WMS, 2.26) respectively. Major problem faced by the farmers were related to market, climate change, agriculture, government and household with average mean 2.41, 2.24, 2.22, 2.15 and 2.10 respectively.

### Livelihood opportunities perceived by farm families in Ambala District

Livelihood opportunities are the factors that facilitates the farmer's efforts to sustain their livelihood for betterment of their life. Small and marginal farmers have opportunities related to facilities provided by government, farm practices, households and community resources. Frequencies, weighted mean scores were calculated and the ranks order was assigned accordingly. Average mean score was also calculated to find out the major opportunities related to livelihood.

From the data presented in the table 3 it is clear that major opportunities provided by government related to 'subsidies on Agri-machinery' was ranked I with (WMS, 2.23), 'Compensation for economic losses provided by government' ranked II with (WMS, 1.79 and 'Good extension services by department of agriculture/agricultural universities' ranked III with WMS, 1.74. It was also concluded that in opportunities

related to farm practice 'Enhancement of soil quality' ranked I with highest weighted mean score (2.13), 'farmers should be encourage to use organic farming, diversification of agriculture' ranked II with the WMS, 1.73. In opportunities related to households 'livestock husbandry' ranked I with highest weighted mean score (1.94) and 'skill enhancement' ranked II with weighted mean score (1.83) and 'educated family member' ranked III with WMS, 1.69. Table 29 further indicated that opportunities related to 'community land ranked I with WMS 2.14, 'development of waste land' ranked II with weighted mean score of 1.57 and 'efficient management of water resources' ranked III with weighted mean score of 1.35. Average mean score of various opportunities was 1.82, 1.69, 1, 65 and 1.64 related to household community resources, farm practices and facilities provided by government respectively.

**Table 3:** Livelihood opportunities perceived by farm families in Ambala District

Sr. no	Category	Ambala (n=150)						Average Mean score
		Always (3)	Sometimes (2)	Never (1)	Weighted Frequency score	Weighted Mean	Rank	
<b>Provided by government</b>								
1.	Good extension services by deptt of agriculture/agril universities	24	63	63	261	1.74	III	1.64
	Vocational training opportunities	11	72	67	244	1.63	IV	
	Technological innovations to raise agricultural productivity	1	18	131	170	1.13	VI	
	Subsidies on agri-machinery	49	87	14	335	2.23	I	
	Compensation for economic losses provided by government	25	69	56	269	1.79	II	
	Provide better market facilities	9	33	108	201	1.34	V	
<b>Related to farm practices</b>								
2.	Farmers should be encourage to use the organic farming, diversification of agriculture	24	62	64	260	1.73	II	1.65
	Food processing	16	50	84	232	1.55	IV	
	Cultivation of medicinal herbs	-	31	119	181	1.21	V	
	Vermicomposting	24	48	78	246	1.64	III	
	Enhancement of soil quality	51	67	32	319	2.13	I	
<b>Related to household</b>								
3.	Skill enhancement	31	63	56	375	1.83	II	1.82
	Educated family members	17	69	64	253	1.69	III	
	Livestock husbandry	37	67	46	291	1.94	I	
<b>Related to community resources</b>								
4.	Community land	41	89	20	321	2.14	I	1.69
	Efficient management of water resources	9	34	107	202	1.35	III	
	Development of wasteland	4	77	69	235	1.57	II	

### Livelihood opportunities perceived by farm families in Yamunanagar District

Small and marginal farmers have opportunities related to facilities provided by government, farm practices, households and community resources. Frequencies, weighted mean scores were calculated and the ranks order was assigned accordingly. Average mean score was also calculated to find out the major opportunities related to livelihood. From the data presented in the table 30 it is clear that major opportunities provided by government related to 'subsidies on agri-machinery' was ranked I with (WMS, 2.23), 'Compensation for economic losses provided by government' ranked II with (WMS, 1.83) and 'vocational training opportunities' ranked III with (WMS, 1.74). It was also concluded that in opportunities related to farm practice 'Enhancement of soil quality' ranked I with

highest weighted mean score (2.26), 'farmers should be encourage to use organic farming diversification of agriculture' ranked II with the (WMS, 1.81). In opportunities related to households 'livestock husbandry' ranked I with highest weighted mean score (2.03) and 'educated family member' ranked II with weighted mean score (1.95) and 'skill enhancement' ranked III with (WMS, 1.91). Table-4 further indicated that opportunities related to 'community land ranked I with (WMS 2.27), 'development of waste land' ranked II with weighted mean score of 1.63 and 'efficient management of water resources' ranked III with weighted mean score 1.46. average mean score of various opportunities was 1.96, 1.79, 1.74 and 1.70 related to agriculture community resources, farm practices and facilities provided by government respectively.

**Table 4.** Livelihood opportunities perceived by farm families in Yamuna nagar District

Sr. no	Category	Yamuna nagar (n=150)						
		Always (3)	Sometimes (2)	Never (1)	Weighted Frequency score	Weighted Mean	Rank	Average Mean score
<b>Provided by government</b>								
1.	Good extension services by dept of agriculture/ agril universities	29	67	54	275	1.83	II	1.70
	Vocational training opportunities	17	77	56	261	1.74	III	
	Technological innovations to raise agricultural productivity	3	21	126	177	1.18	V	
	Subsidies on agri-machinery	47	91	12	335	2.23	I	
	Compensation for economic losses provided by government	27	71	52	275	1.83	II	
	Provide better market facilities	13	37	100	213	1.42	IV	
<b>Related to farm practices</b>								
2.	Farmers should be encourage to use the organic farming, diversification of agriculture	29	64	57	272	1.81	II	1.74
	Food processing	20	55	75	245	1.63	IV	
	Cultivation of medicinal herbs	1	35	114	187	1.24	V	
	Vermicomposting	31	53	66	265	1.77	III	
	Enhancement of soil quality	59	71	20	339	2.26	I	
<b>Related to household</b>								
3.	Skill enhancement	35	67	48	287	1.91	III	1.96
	Educated family members	37	69	44	293	1.95	II	
	Livestock husbandry	43	69	38	305	2.03	I	
<b>Related to community resources</b>								
4.	Community land	50	91	9	341	2.27	I	1.79
	Efficient management of water resources	15	39	96	219	1.46	III	
	Development of wasteland	9	76	65	244	1.63	II	

The findings of the present study are in accordance with study of Singh *et al.* (2013) <sup>[4]</sup> who reported that farmers are facing many problems in Punjab *viz.* high price of Bt seed, labour shortage, inadequate irrigation facilities, low availability of irrigation water and lack of capital resource <sup>[5]</sup> who reported main problems faced by cotton growers were endemic to the pest and disease, soil problem, drought and late heavy rain fail and effect of insecticides. It was also reported by Dev (2012) <sup>[6]</sup> that market oriented reforms were not ample. Government interventions and other support were needed for small land holding farmers to achieve goals. The finding of Bhargava (2015) <sup>[7]</sup> concluded that Indian government important role in the development of agriculture sector in the means of agriculture input subsidies such as electricity, irrigation, credit, seeds and fertilizers.

### Conclusion

Major livelihood problems faced by farm families of Ambala district was related to government followed by climate change, agriculture, household and market respectively. Major problems faced by the farmers of Yamunanagar were related to market, climate change, agriculture, government and household respectively. Livelihood opportunities perceived by farm families of both districts were related to household, community resources, farm practices and related to government respectively. Main opportunities was 'related to household' in both the selected districts which comprises of skill enhancement, educated family member and livestock husbandry.

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