



Personal Characteristics and Knowledge of Beneficiary Farmers towards Pradhan Mantri Krishi Sinchai Yojana in Amber Block of Jaipur, India

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The main goal of the study was to assess the socio-economic profile and knowledge of the beneficiaries farmers towards the Pradhan Mantri Krishi Sinchai Yojana. It is established that the majority (54.17%) of farmers were from the middle-aged group, and 43.33% of respondents had a small family size, i.e., up to 5-8 members. In selected villages, 90.00% were literate, while 10.00% of the illiterate respondent were doing agriculture only (76.67%), with 34.17% of medium-type farmers having medium land holdings and (76.67%) of the respondent having an annual income of 1 lakh, revealing that (75.83%) had extension contact with private agencies. It reveals that the majority of the respondents, accounting for 43.33 percent of the total sample, had a medium score

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of information. From the study, it was also established that the respondents (50.00%) had medium-level knowledge, further (32.50%) of them had low-level knowledge, and (17.50%) respondents had a high level of knowledge about PMKSY schemes for the study area.

Keywords: Personal characteristics; knowledge; yojana.

1. INTRODUCTION

Water is a natural resource, which is essentially required for agricultural production. To feed the ever-increasing population of country, enhancement in production from limited resources is the need of hour. Agricultural productivity can be enhanced if land and water resources are utilized efficiently, and energy is channelized properly. India has 18% of world population, having 4% of world's fresh water, out of which 80% of the exploitable water resources in the country is consumed by different agricultural activities [1]. Irrigation is major water consuming activity in agriculture with only 38% water use efficiency with prevalent method of irrigation therefore a lot needs to be done to improve it. Pradhan Mantri Krishi Sinchai Yojana (PMKSY)-Per Drop More Crops has provided a sound framework for the expansion of Micro Irrigation coverage area of 36.20 lakh ha in scheme from 15th July 2015 [2]. The scheme has been launched with budget of 50,000 crore for period of 5 years (2015-16 to 2019-20). The PMKSY (Per Drop More Crop) includes installation of micro-irrigation systems, use of efficient water conveyance and precision water application devices like drips, sprinklers, pivots and rain-guns in the farm "(Jal Sinchai)", and extension activities for promotion of scientific moisture conservation and agronomic measures including adoption of proper cropping patterns, to maximize use of available water including rainfall and minimize irrigation requirement "(Jal Sanrakshan)". The Ministry of Agriculture and Farmers Welfare, Government of India, has launched the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) to address India's key agricultural challenges in the 21st century i.e., to reduce poverty and ensure food security for the growing population in the face of climate change, scarce and limited water and land resources. This initiative proposes to provide irrigation to every farm in the country (Har Khet Ko Pani) and improve water use efficiency (Per Drop More Crop and Income) [3].

The irrigation initiatives have always been the favourite of leaders for political grandstanding. However, we need to remember public irrigation in India has proved a bottomless pit. According to a Reserve Bank of India (RBI) study, during 1991–2007, the country invested well over Rs 2 lakh crore (at 2007 prices) in irrigation and food control [4].

Water is a critical resource in agriculture and allied sector and it is estimated that globally, on average, agriculture accounts for 70 percent of global fresh water withdrawals. At present, this task at central level is performed by Pradhan Mantri Krishi Sinchai Yojana (PMKSY) [5].

To cope with water scarcity, with improving agricultural water productivity as the single most important avenue for managing water demand in agriculture. The famous slogan of 'More Crop per Drop' (Molden, 1997) or 'Per Drop More Crop' as rechristened by the Prime Minister of India featured throughout the past decade in analyses of WP of crops, cropping systems and agricultural production systems [6,7].

2. MATERIALS AND METHODS

The research study was conducted in Jaipur district of Rajasthan. Jaipur district was purposively selected for the study. There are 22 blocks in Jaipur district of Rajasthan. Out of 22 blocks Amber block was selected through purposive sampling. Out of 193 villages 5 villages were selected randomly viz: Archrol, Ani, Bagwada, Dhand and Chandwasa for the study. Thus, in all 120 respondents' sample for the investigation. Based on the objectives of study, an interview schedule was prepared. The information was elucidated from respondents with the help of structured scheduled through descriptive research design. The information was collected by personally interviewing respondents using structured interview schedule [8,9].

3. RESULTS AND DISCUSSION

1. Socio Economic Profile

Table 1. Socio economic profile of the respondents

Sl.no.	Variables	Frequency	Percentage
1.	Age		
	Young (<31)	29	24.17
	Middle (31-45)	65	54.17
	Old (46-58)	26	21.67
2.	Education		
	Illiterate	12	10.00
	Up to primary	42	35.00
	Up to high Secondary	20	16.67
	Graduate or above	46	38.33
3.	Family Size		
i.	Small (up to 4 members)	46	38.33
ii.	Medium (5-8 members)	52	43.33
iii.	Large (9 and above)	22	18.34
	Total	120	100
4.	Family Type		
	Nuclear	48	40
	Joint	72	60
5.	Occupation		
	Agriculture	92	76.67
	Labour	4	3.33
	Service	24	20.00
6.	Land Holding		
	Less than 5 ha	36	30.00
	1-5 ha	80	66.67
	More than 5	4	3.33
7.	Extension Contacts		
	Private Agencies	91	75.83
	Private Dealer	90	75.00
	Progressive farmers	88	73.33
	Village level workers (VLWs)	87	72.50
	Agriculture Supervisor	71	59.17
	Assistance Agriculture Officers (AAOs)	72	60.00
	Agriculture Officers (AO)	75	62.50
	Personal of NGOs	43	35.83
8.	Annual Income		
	Rs 10,000 to 1.0 lac per annum	18	15.00
	Rs 1.0 lac per annum	92	76.67
	Rs 2.5 lac per annum	10	8.33
9.	Source of Information		
	Low (16-19)	35	29.16
	Medium (20-21)	52	43.33
	High (22-24)	33	27.5
10.	Economic motivation		
	Low (06 to 18 score)	29	24.16
	Medium (19 to 30 score)	58	48.33
	High (31 to 42 score)	33	27.5
11.	Risk Orientation		
	Low	33	27.5
	Medium	46	38.33
	High	41	34.16

A majority (54.17%) % of farmers were from the middle-aged group, and 43.33% of respondents had a small family size, i.e., up to 5-8 members. In selected villages (90.00%) were literate, while (10.00%) of the illiterate respondent were doing agriculture only (76.67%), with 34.17% of medium-type farmers having medium land holdings, and (76.67%) of the respondent having

annual income (1 lakh), revealed that (75.83%) had extension contact with private agencies. It reveals that the majority of the respondents, accounting for(43.33%) of the total sample had a medium score of information, the maximum farmer had a medium level of economic motivation (48.33%), and (38.33%) of the total sample had a medium level of risk orientation.

Table 2. Knowledge level of the farmers towards Pradhan Mantri Krishi Sinchai Yojana

Sl. No.	Statement	Frequency	Percentage	Rank
1	PMKSY was launched on 1st July 2015.	90	75.00	II
2	PMKSY is applicable in which season?	65	54.17	VII
3	Which crops are covered under PMKSY?	55	45.83	IX
4	PMKSY scheme was applicable to which categories of farmers?	88	73.33	III
5	Which crop insurance scheme also covers tenant farmers?	85	70.83	IV
6	Which is the company providing crop insurance under PMKSY?	52	43.33	X
7	Which type of losses covered under PKMBY	35	29.17	XIV
8	Which of the following scheme is the replacement scheme of NAIS / MNAIS?	25	20.83	XVII
9	Is PMKBY not for commercial crops?	27	22.50	XVI
10	Whether policy application form has to be filled in order to avail crop irrigation services?	36	30.00	XIII
11	Whether Policy forms for loan farmers is filled automatically?	12	10.00	XVIII
12	Is PMKSY has high premium rate compared to previous schemes?	56	46.67	VIII
13	Do you know that PMKSY is deducted from the amount of loan they take from the bank?	95	79.17	I
14	Is Common Service Centres helps in facilitation of PMFBY for non-loanee farmers?	49	40.83	XII
15	Do you know that, if the crop gets damaged, the farmer can report crop loss and also apply for claim on the PMFBY portal?	67	55.83	VI
16	Do you know that losses caused by draught would be assessed at individual farm level?	34	28.33	XV
17	Are you aware of the time period of reporting losses for Yojana claims?	51	42.50	XI
18	Do you know which crops are notified in your area under PMKSY	54	45.00	X
19	Can we rectify the mistakes of online application applied under PMKSY?	81	67.50	V

Table 3. Overall knowledge level of farmers regarding PMKSY scheme for agriculture development

Sl. No.	Scores	Respondents	
		Frequency	Percentage
1	Low (up to 33)	39	32.5
2	Medium (29 to 37)	60	50
3	High (38 and above)	21	17.5
	Total	120	100

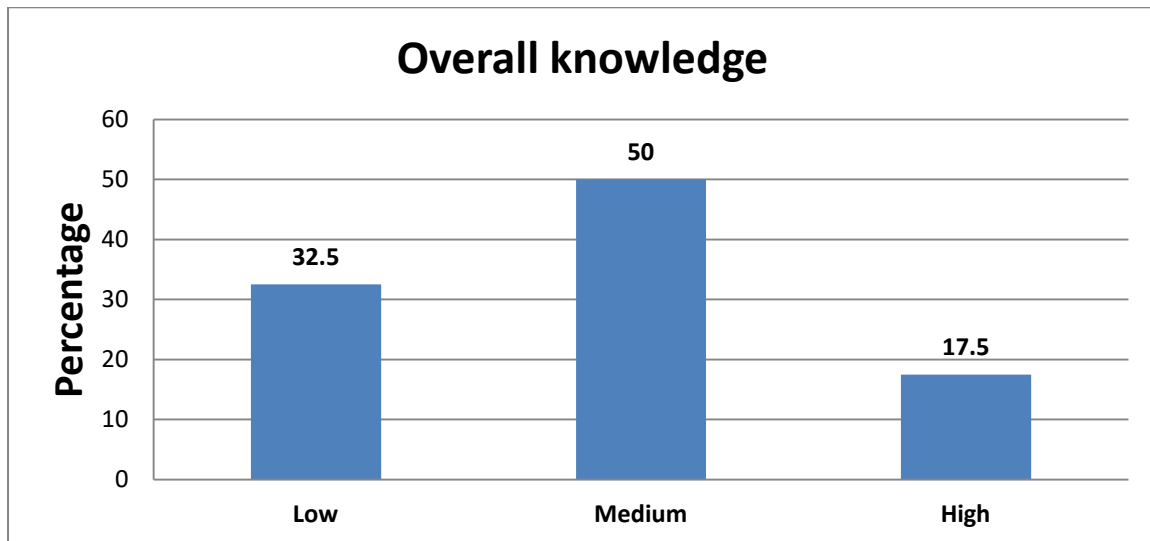


Fig. 1. Knowledge level of the farmers

Table 4. Correlation between knowledge level of respondents with the profile of the beneficiaries

S. no.	Variables	Correlation coefficient (r)
1	Age	0.917*
2	Education	0.990*
3	Family Size	0.925*
4	Occupation	0.25 NS
5	Land Holding	0.998*
6	Extension Contacts	0.591**
7	Annual Income	0.924*
8	Source of Information	0.206**
9	Economic motivation	0.253**
10	Risk Orientation	0.4218**

*=Correlation is significant at the 0.01 level of probability

**= Correlation is significant at the 0.05 level of probability,

NS=Non-significant

It was observed that half of the respondents (50.00%) had medium level knowledge, further (32.50%) of them had low level knowledge and (17.50%) respondents had high level of knowledge about PMKSY schemes for study area. In general, from above result it may be said that majority of the respondents had medium level knowledge about government schemes for agriculture development.

Individual aspect wise knowledge of respondents was also worked out for drawing a picture about the areas where respondents had good knowledge and where they were lacking, so that areas where respondents had low level of knowledge can be given more importance in future.

It is concluded that the independent variables i.e. age, education, landholding, annual income, type of family, family size, annual income were positively and significantly correlated with the Knowledge of respondents towards PMKSY at 0.01% of probability. and Source of information, extension contacts, risk orientation and economic motivation were positively and significantly correlated with the Knowledge of respondents towards PMKSY at 0.05% of probability and occupation was negatively and non-significantly correlated with the Knowledge of respondents towards PMKSY. Therefore, the null hypothesis was rejected for these variables.

4. CONCLUSION

A majority (54.17%)% of farmers were from the middle-aged group, and 43.33% of respondents

had a small family size, i.e., up to 5-8 members. In selected villages (90.00%) were literate, while (10.00%) of the illiterate respondent were doing agriculture only (76.67%), with 34.17% of medium-type farmers having medium land holdings, and (76.67%) of the respondent having annual income (1 lakh), revealed that (75.83%) had extension contact with private agencies. It reveals that the majority of the respondents, accounting for 43.33% of the total sample had a medium score of information, the maximum farmer had a medium level of economic motivation (48.33%), and (38.33%) of the total sample had a medium level of risk orientation. It is also revealed that the respondents (50.00%) had medium level knowledge, further (32.50%) of them had low level knowledge and (17.50%) respondents had high level of knowledge about PMKSY schemes for study area.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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