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Profile characteristics of the Beneficiary and Non-beneficiary Farmers of PMKSY

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ABSTRACT: The development of the government's many agricultural development programs is correlated with our country's progress. Active engagement is required for the implementation of development schemes to be successful. With the aim of increasing water use efficiency in the agricultural sector by promoting appropriate technological interventions like drip and sprinkler irrigation technologies and encouraging farmers to use water-saving and conservation techniques, the Government of India has been implementing the Centrally Sponsored Scheme on Micro Irrigation. The primary goals of PMKSY are to coordinate irrigation investments at the field level, increase cultivable land under guaranteed irrigation, increase adoption of precision irrigation and other water-saving technologies (more crop per drop), improve aquifer recharge, and introduce sustainable water conservation practises by investigating the viability of reusing treated municipal waste water. Respondents were selected from two Tehsils of Jalgaon district namely Rawer and Yawal and two Tehsils of Ahemednagar district namely Parner and Shrigonda. Tehsils and villages were selected purposively based on maximum number of beneficiaries under the scheme. Total of 160 beneficiary farmers and 160 non-beneficiary farmers were selected for study. The total sample size was 320.Primarily socio-economic and personal characteristic of each beneficiaries and non-beneficiaries was considered for the study. According to the study, Majority of beneficiaries were young age (38.75%)and 40.63 per cent non-beneficiaries were middle aged, per cent and 62.50 per cent beneficiaries of PMKSY and non-beneficiaries are having secondary education,78.75 per cent and 71.25 per cent beneficiaries and non-beneficiaries had medium level of farming experience 26 to 40 years, Majority of beneficiaries(46.25%) and non-beneficiaries (49.38%) had medium level of annual income, majority of beneficiaries and non-beneficiaries are under small farmer category i.e. having land 1.01 to 2.00ha, 23.75 per cent and 28.75 per cent of PMKSY beneficiaries and non- beneficiaries had medium. The results also showed that most respondents have medium extension contact, economic motivation and marketing behaviour. The current research is limited by the various issues such as time and other resources were limited because this was a student's research. Because the study's conclusions are based solely on the replies of 320 respondents, its applicability is restricted. The investigator was compelled to restrict the number of variables used for the study due to time and resource constraints.

Keywords: PMKSY, beneficiaries, Non-beneficiaries, Agriculture and Micro irrigation.

INTRODUCTION

The development of the government's many agricultural development programs is correlated with our country's progress. Active engagement is required for the implementation of development schemes to be successful. With the aim of increasing water use efficiency in the agricultural sector by promoting appropriate technological interventions like drip and sprinkler irrigation technologies and encouraging farmers to use water-saving and conservation techniques, the Government of India has been implementing the Centrally Sponsored Scheme on Micro Irrigation.

The primary goals of PMKSY are to coordinate irrigation investments at the field level, increase cultivable land under guaranteed irrigation, increase adoption of precision irrigation and other water-saving technologies (more crop per drop), improve aquifer recharge, and introduce sustainable water conservation practises by investigating the viability of reusing treated municipal waste water.

The PMKSY is the result of the merger of the Department of Land Resources' (DoLR) Integrated Watershed Management Programme (IWMP), the Department of Agriculture and Cooperation's (DAC) On Farm Water Management (OFWM), and the

Ministry of Water Resources, River Development & Ganga Rejuvenation's (MoWR, RD& GR) Accelerated Irrigation Benefit Programme (AIBP). The strategy will be implemented by the Ministries of Rural Development, Agriculture, and Water Resources. Construction of water harvesting structures, contour bunding, small check dams and agricultural ponds are among the projects largely carried out by the Ministry of Rural Development. The MoWR, RD, and GR are responsible for the development of water distribution systems, the construction of diversion canals, field channels, lift irrigation, and a guaranteed irrigation source.

MATERIAL AND METHODS

For assessing the impact of Pradhan Mantri Krishi Sinchayee Yojana there are four components but at present more work completed on two components i.e. Per Drop More Crop and Har Khet Ko Pani. The beneficiaries of these two components will be identified. From each village 10 beneficiaries and 10 non-beneficiaries under this project were purposively selected. Total 160 beneficiaries and for analyzing impact 160 non-beneficiaries from same village were selected thus total 320 beneficiaries were selected for present study. These two districts were selected purposively as there were more physical area covered under this scheme.

Respondents were selected from two Tehsils of Jalgaon district namely Rawer and Yawal. From Rawer tehsil, Vivare Bk., Vivare Kd., Rasalpur, Kerhale Bk. villages were selected for the study. From Yawal Tehsil, Bhalod, Nhavi, Kingaon, Kolwad villages were selected. Tehsils and villages were selected purposively based on maximum number of beneficiaries under the scheme. Total 80 beneficiary and 80 non-beneficiary farmers were selected from Jalgaon district.

In Ahmednagar District, also two tehsils were selected based on maximum no. of beneficiaries namely Parner and Shrigonda. From Parner tehsil, four villages Ralegan Siddhi, Javala, Ralegan Therpal, Nighoj are selected. Similarly, in Shrigonda tehsil, four villages namely Deodhaithan, Ghotavi, Pargaon Sudrik, Rajapur are selected. Tehsils and villages were selected purposively based on maximum number of beneficiaries under the scheme. Total 80 beneficiary and 80 non-beneficiary farmers were selected from Ahmednagar district for study. Total of 160 beneficiary farmers and 160 non-beneficiary farmers were selected for study. The total sample size was 320.

RESULTS AND DISCUSSION

Profile characteristics of the beneficiary and non-beneficiary farmers of PMKSY

The respondents descriptions based on chosen personal, socio-economic, communicational and psychological variables. Each variable's results have been explored separately. These findings are listed below:

Table 1: Distribution of respondents on the basis of their profile characteristics.

Sr. No.	Variables	Categories	Beneficiary(n=160)		Non-beneficiary(n=180)	
			Percentage	Frequency	Frequency	Percentage
Distribution of respondents based upon Age						
1.	Age	Young (Up to 35 years)	68	42.50	21	13.12
		Middle (36 to 55 years)	62	38.75	86	53.75
		Old (above 55 years)	30	18.75	53	33.13
Distribution of respondents based upon Education						
2.	Education	Illiterate	3	01.88	15	09.38
		Pre-primary education (I-IV std)	18	11.25	21	13.12
		Primary education (V-VII std)	65	40.63	100	62.50
		Secondary education (VIII-X std)	60	37.50	18	11.25
		Higher secondary (XI-XII std)	14	08.74	06	03.75
		Higher education (Graduation and above)	3	01.88	15	09.38
Distribution of respondents based upon Farming Experience						
3.	Farming Experience	Low (Up to 25 years)	22	13.75	11	06.87
		Medium (25 to 40 years)	126	78.75	114	71.25
Distribution of respondents based upon Annual Income						
4.	Annual Income	Low (Up to 480000)	57	35.63	68	42.50
		Medium (480001 to 765000)	74	46.25	79	49.38
		High (765001 and above)	29	18.12	13	08.12
Distribution of respondents based upon Land Holding						
5.	Land Holding	Marginal (Up to 1.00)	36	22.50	85	53.12
		Small (1.01 to 2.00)	38	23.75	46	28.75
		Medium (2.01 to 4.0)	46	28.75	14	08.75
		Large (4.01 to 5.00)	33	20.63	09	05.63
		Medium (0.7 to 1.0 ha)	98	54.44	79	43.89
		More (1.1 and above)	45	25.00	40	22.22
Distribution of respondents based upon Extension Contact						
6.	Extension Contact	Low (Up to 7)	50	31.25	72	45.00
		Medium (8 to 10)	72	45.00	70	43.75
		High (11 and above)	38	23.75	18	11.25

		Medium (14 to 16)	92	51.11	85	47.22
		High (17 and above)	50	27.78	34	18.89
Distribution of respondents based upon Economic Motivation						
7.	Economic Motivation	Low (Up to 25)	29	18.12	33	20.63
		Medium (26 to 28)	87	54.38	111	69.37
		High (29 and above)	44	27.50	16	10.00
Distribution of respondents based upon Marketing Behaviour						
8.	Marketing Behaviour	Low (Up to 10)	14	08.75	20	12.50
		Medium (11 to 13)	85	53.12	100	62.50
		High (14 and above)	61	38.13	40	25.00

1. Age. From Table 1 it was noticeable that young farmers (42.50%) accounted for the bulk of the beneficiaries, followed by middle-aged farmers (38.75%) and elderly farmers (18.75%). Similarly, the majority of non-beneficiary farmers were middle-aged (53.75%), with older and younger farmers coming in second and third, respectively, at 33.13% and 13.12%. It is reasonable to conclude that the respondents in both categories belonged to the younger and middle age groups. Younger farmers had greater enthusiasm than middle-aged and elderly farmers. In contrast, respondents in the younger age group had more financial freedom and were able to act autonomously to carry out their objectives. Younger respondents were more productive at work and had a moderate amount of farming experience compared to older and middle-aged respondents. The results are consistent with the findings of Bansode *et al.* (2013); Ghanghas (2018).

2. Education. Table 1 noticeable that the majority of beneficiaries (40.63%) have completed secondary education, followed by upper secondary education (37.50%), primary education (11.25%), higher education or a degree (08.75%), and illiteracy (01.88%). While the majority of farmers who were non-beneficiary had only a secondary education (62.50%), the next highest levels of education were primary (13.12%), higher secondary (11.25%), illiterate (09.38%), and degree-holding (03.75%). In comparison to non-beneficiary farmers, the majority of beneficiary farmers had secondary or higher level education, suggesting that the more educated beneficiaries used drip and sprinkler systems. The findings are in agreement with the findings of Dhande (2017).

3. Farming Experience. From table 1 it was noticeable that majority of the beneficiary farmers having Medium level of farming experience about 26 to 40 years (78.75%) followed by low level of farming experience up to 25 years (13.75%) and high level 41 years and above (07.50%) respectively. In case of Non-beneficiary majority of the farmers were having medium level of farming experience 26 to 40 years (71.25%), followed by high level of farming experience 41 years and above (21.88%), low level of farming experience up to 25 years (06.87%). The majority of the farmers who received benefits had medium-level farming experience, which suggests that they had enough agricultural experience to use sprinklers and drip irrigation. According to a line with Prasad (2008); Dhande (2017).

4. Annual Income. From table 1 it was noticeable that regarding the beneficiary farmers who received the benefits, 46.25 percent of them reported having a medium yearly income, followed by low (35.63%) and high (18.12%) incomes. Comparably, the majority of non-beneficiary farmers earn a medium amount of money annually (49.38%), followed by low (42.50%) and high (08.12%). Comparing beneficiary farmers to non-beneficiary farmers, we may conclude that the bulk of PMKSY beneficiaries had medium yearly incomes, followed by high annual incomes. The findings listed were discovered to be closely connected to the observations made by Bannapure (2007); Ahire *et al. (*2015)

5. Land holding. According to the statistics in the table, majority of the beneficiary farmers were semi-medium farmers (28.75%), (23.75%) of the farmers were small farmers, (22.50%) of the farmers were marginal farmers, (20.63%) of the farmers were medium and big farmers were about (4.37%). In case of non-beneficiary farmers, majority of the farmers were marginal (53.12%) followed by small (28.75%), semi-medium (8.75%), medium (5.63%) and big farmers (3.75%). We may draw the conclusion that the land holdings of the two farmer groups were identical. The bulk of farmers fell into the category of having up to 4 hectares of land because of the fragmentation of the land and the formation of nuclear families, which reduced the amount of land held by each farmer. The causes behind the partition of land because of family separation are the existence of marginal, tiny, semi-medium, and medium land holdings. Similar conclusions were published by Paulraj *et al*. (2020); Swain *et al*. (2020).

6. Extension Contact. According to the data presented in Table 1, noticeable that in case of beneficiary farmers medium extension contacts were held by the majority of farmers (45.00%), followed by low (31.25%) and high (23.75%). Conversely, the bulk of farmers who were non- beneficiary had low extension connections (45.00%), followed by medium (43.75%) and high (11.25%). This showed that compared to non-beneficiary farmers, beneficiary farmers had more extension contacts. Farmers were obtaining information about various agriculture-related schemes through extension contacts with Agril. Officers. The findings are found contradictory in the study of Jamanal *et al.* (2020); Choubitker (2007); Boruah *et al.* (2015).

7. Economic Motivation. According to table 1, majority of the farmers who received the benefits had a

medium level of economic motivation (54.38%), followed by high (27.50%) and low (18.12%). In case of non-beneficiary farmers maximum number of farmers were having The three categories of economic motivation are medium (69.37%), low (20.63%), and high (10.00%). Comparing beneficiary farmers to non-beneficiary farmers, we could see that beneficiary farmers' economic motivations ranged from medium to high. Similar findings are reported by Fartyal and Rathore (2014).

8. Marketing Behaviour. In Table 1 shows that maximum number of beneficiary farmers were having medium marketing behaviour (53.12%) followed by high (38.13%) and low (08.75%). Regarding non-farmers, the bulk of them (62.50%) exhibited medium marketing behaviour, followed by high marketing behaviour (25.00%) and low marketing behaviour (12.50%). The average marketing behaviour score for farmers who receive assistance is 12.40, whereas the average score for farmers who do not receive assistance is 11.94. The findings are in line with the research of Pisure *et al.* (2014).

CONCLUSIONS

Overall findings of the study stated that majority of beneficiary farmers had up to 35 years age received up to secondary education, were having 25 to 40 years farming experience, medium annual income, small land holders, having medium area under vegetable crop, extension contact, mass media exposure, economic motivation and marketing behaviour is medium level.

Majority of Non- Beneficiaries middle aged, secondary level education, 25 to 40 years farming experience, medium annual income, having land from 1.01 to 2.00ha, medium level of extension contact, economic motivation and marketing behaviour. The empirical findings of the study can produce helping hands for the future researchers, reviewers, policymakers to study impact of the similar type of research.

FUTURE SCOPE

The present study is focused on only two component of PMKSY scheme i.e. HarKhetKoPani and Per Drop More Crop, further studies can be made on remaining two components. Further the study is confined to only two districts, to derive wider generalizations; studies should be conducted in other districts of Maharashtra where Physical area covered under PMKSY Scheme. More number of variables and perceived impact indicators can be included in the further perceived impact studies of PMKSY Scheme.

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Conflict of Interest. None.

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