

Original Research Article

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## Source of Irrigation, Cropping System Adopted and Mass Media Exposure of Beneficiary and Non-beneficiary Farmers under Pradhan Mantri Krishi Sinchayee Yojana at Belagavi District of Karnataka State

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### ABSTRACT

#### Keywords

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#### Article Info

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Belagavi district was selected for study area. Based on the utilization of fund allotted for micro irrigation, two taluks having highest and lowest fund utilization were selected, four taluks were selected for the study, making a total sample for the study 120. Ex-post facto research design was employed for the study; the data was elicited through personal interview method. The collected data were analysed using appropriate statistical tools. The important findings of the study were, Large majority of beneficiaries and non beneficiaries (95.00 and 91.66%) having bore well as source of irrigation. Great majority beneficiaries (91.66%) and non-beneficiary (96.66%) farmers adopting sugarcane as mono cropping system. Exactly half (50.00%) of the beneficiary farmers and more than half non beneficiaries (55.00%) had medium mass media exposure.

### Introduction

PMKSY aims at amalgamation of ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR), Ministry of Rural Development (MoRD) and On Farm Water Management (OFWM) component of National Mission on Sustainable Agriculture (NMSA) of Department of Agriculture and Cooperation

(DAC). Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) is approved for implementation across the country with an outlay of Rs.50,000 crore in five years. The central assistance will be based on utilisation by the State Government in different years in coming five year. If required, total allocation for this scheme will be enhanced to meet the requirement of the State Governments, so that objective of providing HarKhetKoPani and Per Drop More Crop could be achieved.

In view to resolve these problems and also to provide HarKhetkoPani “Pradhan Mantri

Krishi Sinchayee Yojana” (PMKSY) has been approved for implementation across the country.

The major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies (Per Drop More Crop), enhance recharge of aquifers and introduce sustainable water conservation practices by exploring the feasibility of reusing treated municipal waste water for peri-urban agriculture and attract greater private investment in precision irrigation system. The scheme also aims at bringing the Ministries/Departments/Agencies/Research & Financial Institutions concerned, engaged in creation/use/recycling/potential recycling of water brought under a common platform so that a comprehensive and holistic view of entire “water cycle” is taken into account & proper water budgeting is done for all sectors viz. household, agriculture & industries.

The pattern of assistance payable under the micro irrigation scheme will be 55% for small and marginal farmers and 45% for other farmers that both will be met by both Central Government and State Government at the ratio of 60:40 for all states except the North Eastern and Himalayan states. In the case of these states, ratio of sharing is 90:10. For the Union Territories, funding pattern is 100% grant by the Central Government.

The PMKSY-Per Drop More Crop mainly focuses on water use efficiency at farm level through precision/micro irrigation. The following facilities can be provided to farmers under the programme subject to Annual Action plan (AAP) approved activities included under District irrigation plan (DIP).

## **Materials and Methods**

### **Selection of district**

There are 30 districts in Karnataka state out of these Belagavi district of Karnataka was selected because of it has highest irrigation area.

### **Selection of blocks/taluks**

There are 10 taluks in Belagavi district out of these four taluks were selected based on fund allotted and utilisation for micro irrigation under PMKSY. Two were highest fund utilisation Gokak and Chikkodi. Two were lowest fund utilisation Bailhongal and Belagavi.

### **Selection of village**

There are 1270 villages, ten villages were selected randomly for the present study.

### **Selection of respondents**

From each selected village five beneficiary and five non-beneficiary farmers were selected randomly to constitute the total sample size of 120.

### **Tools used for data collection**

Survey is one of the tools used for collecting the relevant information from PMKSY beneficiary and non-beneficiary farmers. Structured, pretested interview schedule was employed to collect the information from PMKSY beneficiary and non-beneficiary farmers to elicit information regarding by utilising of micro irrigation to cropping system adopted, source of irrigation used and mass media exposure under PMKSY. The information was tabulated, analysed by the researcher personally and presented in the result and discussion.

## **Results and Discussion**

The findings of the present study as well as relevant discussion have been summarized under following heads:

### **Cropping system adopted by beneficiary and non-beneficiary farmers of PMKSY**

It could be seen from the results of the Table-1 that, farmers practices Sugarcane-Sugarcane (ratoon crop) cropping system (91.66%), whereas 86.66 per cent of them fallowed Sugarcane + Maize and 80.00 per cent of them Sugarcane -Soybean. Further 70.00 per cent of beneficiary respondents adopted Sugarcane + Chilli followed by 65.00 and 48.33 per cent of respondents follow Sugarcane + Onion and greengram/black-rabi sorghum as cropping system. While 33.33 and 31.67 per cent of them follow Sugarcane – cabbage/cauliflower and chickpea + Rabi sorghum. Almost least per cent of (08.33 %) respondents follow orchard crop as cropping system (Mango 05.00% and Grape 03.33 %)

Among non-beneficiaries, large majority of farmers practices Sugarcane-Sugarcane (ratoon crop) cropping system (96.66%), whereas 90.00 per cent of them fallowed Sugarcane + Maize and Sugarcane-Soybean (76.66%). further 73.33 per cent of respondents follow Sugarcane+Chilli followed by 71.66 and 46.66 per cent of respondents follow Sugarcane + Onion and greengram/black-rabi sorghum as cropping system. While 40.00 and 31.67 per cent of them follow chickpea + Rabi sorghum and Sugarcane-cabbage/cauliflower, respectively. Meager 15.00 per cent of non-beneficiary respondent fallow orchard crop as cropping system (Mango 08.33% and Grape 06.66 %).

The possible reason attributing might be that these are suited to cropping systems were suited to their agro climatic region and these

crops are also more economical, profitable and they are very commonly practice in that region since long years. Similar findings were observed in the study conducted by Biradar (2019).

### **Source of irrigation used by beneficiary and non-beneficiary farmers of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)**

It could be seen from the results of the Table-2 that, almost all the beneficiary farmers (95.00 %) had bore well as a source of irrigation, followed by 66.66 per cent and 58.33 per cent of farmers were having a source of irrigation as river and canal, respectively. While only 18.33 per cent of beneficiary farmers had open well as a source of irrigation. A very high majority of the non-beneficiaries (91.66 %) had bore well as a source of irrigation followed by river (71.64%) and canal (50.00%). A negligible portion (18.33%) of non-beneficiary farmers had open well as a source of irrigation.

The plausible reason might be that a good majority of beneficiary and non beneficiary farmers are growing sugarcane followed by sugarcane ratoon and for plantation crops these crops required irrigation at all stages of crop growth. This necessities them to go for micro irrigation. The present findings had support with findings of Shambuling appa (2016).

### **Mass media exposure of beneficiary and non-beneficiary farmers of Pradhan Mantr Krishi Sinchayee Yojana (PMKSY)**

The data inferred from the Table-3 that, two fourth (51.67%) of the beneficiary farmers had medium mass media exposure level, while 26.67 per cent and 21.66 per cent of them had high and low levels of mass media exposure, respectively. whereas in case of non-beneficiaries exactly half (50.00%) of the

respondents had medium mass media exposure level, followed by equal 25.00 per cent them had low and high mass media exposure category.

**Table.1** Cropping system followed by beneficiary and non-beneficiary farmers of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) (n=120)

Cropping system	Beneficiaries (n <sub>1</sub> =60)		Non-beneficiaries (n <sub>2</sub> =60)	
	Frequency	Per cent	Frequency	Per cent
Sugarcane-sugarcane ratoon	55	91.66	58	96.66
Sugarcane+maize	52	86.66	54	90.00
Sugarcane+onion	39	65.00	43	71.66
Sugarcane+cabbage/cauliflower	20	33.33	19	31.66
Sugarcane+chilli	42	70.00	44	73.33
Sugarcane ratoon-soyabean	48	80.00	46	76.66
Horsegram- rabi sorghum	21	35.00	22	36.66
Rabi sorghum+chickpea	19	31.66	24	40.00
Greengram/blackgram-rabi sorghum	29	48.33	28	46.66
Mango	03	05.00	05	08.33
Grape	02	03.33	04	06.66

**Table.2** Source of irrigation used by beneficiary and non-beneficiary farmers of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) (n=120)

Source of irrigation	Beneficiaries (n <sub>1</sub> =60)		Non-beneficiaries (n <sub>2</sub> =60)	
	Frequency	Per cent	Frequency	Per cent
Open well	11	18.33	10	16.66
Bore well	57	95.00	55	91.66
Canal	35	58.33	30	50.00
River	40	66.66	43	71.64

**Table.3** Overall distribution of the beneficiary and non-beneficiary farmers of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) according to their mass media exposure (n=120)

Sl No	Category	Beneficiaries (n <sub>1</sub> =60)		Non-beneficiaries (n <sub>2</sub> =60)	
		Frequency	Percentage	Frequency	Percentage
1	Low	13	21.66	15	25.00
2	Medium	31	51.67	30	50.00
3	High	16	26.67	15	25.00
	Total	60	100.0	60	100.0
		Mean=11.31 SD=5.84 Low=8.83 High=13.80		Mean=11.00 SD=5.33 Low=8.78 High=13.50	

**Table.4** Mass media exposure of beneficiary and non-beneficiary farmers of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) (n=120)

Sl. No	Mass media	Subscribed/ Possessed		Programmes/ articles	Extent of Participation															
					Beneficiaries						Mass media	Subscribed/ Possessed		Programmes/ articles	Non-beneficiaries					
					Regularly		Occasionally		Never			f	%		Regularly		Occasionally		Never	
					f	%	f	%	f	%					f	%	f	%	f	%
1.	Newspaper	20	33.33	Agriculture articles	05	08.33	11	18.33	44	73.33	Newspaper	24	40.00	Agriculture articles	03	05.00	11	18.33	46	76.66
				News	14	23.33	20	33.33	26	43.33				News	12	20.00	20	33.33	28	46.66
				Entertainment	07	11.66	22	36.66	31	51.66				Entertainment	07	11.66	22	36.66	31	51.66
2.	Farm Magazines	01	01.66	Agriculture articles	-	00.00	03	05.00	57	95.00	Farm Magazines	03	05.00	Agriculture articles	-	00.00	01	01.66	59	98.33
3.	Radio	-	00.00	Agriculture programmes	-	00.00	-	00.00	-	00.00	Radio	-	00.00	Agriculture programmes	-	00.00	-	00.00	-	00.00
				News	-	00.00	-	00.00	-	00.00				News	-	00.00	-	00.00	-	00.00
				Entertainment	-	00.00	-	00.00	-	00.00				Entertainment	-	00.00	-	00.00	-	00.00
4.	TV	60	100.0	Agriculture programmes	09	15.00	36	60.00	15	25.00	TV	60	100.0	Agriculture programmes	07	11.66	34	56.66	19	31.66
				News	39	65.00	17	28.34	04	06.66				News	36	60.00	17	28.34	07	11.66
				Entertainment	40	66.67	18	30.00	02	03.33				Entertainment	43	71.66	15	25.00	02	03.33
5	Internet	35	58.33	Agriculture information	01	01.67	15	25.00	44	73.33	Internet	39	65.00	Agriculture information	01	01.67	15	25.00	44	73.33
				News	-	00.00	19	31.66	41	68.33				News	-	00.00	19	31.66	41	68.33
				Entertainment	15	25.00	20	33.33	25	41.66				Entertainment	14	23.33	20	33.33	26	43.33

f-Frequency, %-Percentage

It is clear from the Table 4 that amongst different mass media learnt, television, a Cent per cent of beneficiary and non-beneficiary farmers (100.0%) was possessed by all the farmers because television was the most effective common medium because of its rising popularity and monopolization dominated in its utilization compared to other electronic media which was possessed by most of the farmers, due to its strong audio-visual effect on viewers, television viewing was used mainly for entertainment programmes.

It is also obvious from the Table 4 that, majority (66.67%) of the respondents regularly watched entertainment programs in the tv followed by more than three fifth (61.67%) of the respondents watched news in TV program and three fifth (60.00%) of the respondents never watched agricultural programmes in the TV. It is because of its strong audio-visual impact on viewers. After the tedious work in the field, farmers were tending to view entertainment programmes.

With regard to internet, one fourth (25.00%) of the respondents occasionally browsed entertainment programmes in the internet followed by nearly two fifth (31.66%) of the respondents occasionally browsed news in the internet and majority (73.33%) of the respondents never browsed internet for agricultural information. Probable reason for this is now a day's mobile became the part of life and large number of farmers use mobile to call friends and many use internet to get entertainment. While some of them used to get agriculture information.

Looking in to newspaper section majority (73.33%) of the respondents never read agricultural articles followed by more than half (43.33%) of the respondents occasionally read the entertainment news and slightly more than one third (51.66%) of the respondents

regularly read the news. Since, newspaper is one of the cheapest mass communication media and literacy of farmers in the study area resulted in this kind of results. Further, access to library in most of the villages tends to expose them to print media like newspaper.

Further, it was discouraging to note that none of farmers listened radio programme Probable reason is that nowadays, radio has become less popular because of increasing popularity of television and its affordability. Further, lack of interest and time to listen the programmes broadcasted in radio might also be the reason that farmers never used.

A meagre per cent (01.66%) of the farmers occasionally read the agricultural articles in the farm magazine. It might be because of lack of knowledge to subscribe, lack of interest.

The results are in conformity with the findings of Mohan and Reddy (2012), Ghintal (2013) and Padmaja (2018).

In conclusion the great majority (95.00%) of beneficiaries and (91.66%) of non-beneficiaries had bore well as source of irrigation and great majority beneficiaries (91.66%) and non-beneficiary (96.66%) farmers adopting sugarcane as mono cropping system. While half (50.00 %) of the beneficiary farmers and more than half per cent of non-beneficiaries (55.00%) had medium mass media exposure.

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