

A Study On Perception Of Usefulness Of Pmksy Among The Grape Growers In Tamil Nadu

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Abstract

Micro Irrigation technology plays a vital role in Agriculture in saving water and increasing productivity through effective utilization of every drop of water. Micro Irrigation has received considerable attention from farmers for its perceived ability to contribute significantly to groundwater resources development, agricultural productivity and economic growth. Drip Irrigation System is a life saver for many farmers in India, by enhancing the yield and quality of the produce. Increasing water scarcity and limited availability of labour has paved the way for implementation of Micro Irrigation scheme. Micro Irrigation technology improves water use efficiency by 40 per cent to 60 per cent by precise water application. Through fertigation technology, fertilizers are directly applied to the root zone in drip irrigation; hence fertilizer use efficiency is also increased.

Government of India is committed to accord high priority to water conservation and its management. To this effect Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been formulated with the vision of extending the coverage of irrigation and improving water use efficiency 'More crop per drop' in a focused manner with end to end solution on source creation, distribution, management, field application and extension activities.

The project is being implemented across India and is being implemented in various districts of Tamil Nadu. Knowing the perception of the beneficiaries about the usefulness of this scheme will help the policymakers to take this to the next level. To find out, the study was conducted in Dindigul district of Tamil Nadu with 120 beneficiaries and its results are shared here. The result indicated that maximum number of the respondents had positive and favourable perception towards the PMKSY scheme.

Key words: PMKSY, drip irrigation, grape growers, perception

Introduction

According to the FICCI, 2016, agriculture accounts for approximately seventy per cent of global freshwater withdrawals and ninety per cent of its consumptive use. There is considerable strain on water resources due to non-judicious conveyance and application in agricultural practices. A United Nations (UN) study further indicates that nearly 3.4 billion people would be living in water scarce countries by the year 2025. Without doubt, agriculture is a sector wherein 'water scarcity' has very critical relevance, specially, in context of the ongoing climate change vulnerabilities.

In India, food grain production has largely been possible through irrigated agriculture. But over fifty per cent of cultivated land that produces more than eighty percent of nutri-cereals, pulses, oilseeds, fruits and vegetables is monsoon dependent. Such land in 'rainfed' regions also

face vagaries of aberrant monsoons, soil degradation, nutrient deficiencies and more importantly declining ground water table. We are a food secure nation notwithstanding. However, a mammoth challenge for the future is increasing agricultural productivity, first and foremost, by prudent and efficient use of water resources. The Doubling Farmers Committee (DFI) Report of Government of India, 2018 correctly observes that to achieve doubling farmers income the need of the hour is to ensure scientific and egalitarian application of water to achieve the right crop result and also avoid wastage.

Therefore, to address end to end solutions for water management in agriculture, Government of India has launched a comprehensive flagship programme called, ‘Pradhan Mantri Krishi Sinchayee Yojana.’ More specifically, the ‘Per Drop More Crop’ component of the scheme focuses on micro irrigation systems (sprinkler, drip, pivots, rain-guns etc.) that promote precision farming by making water available in a targeted manner to the root zone of crops. There is an area ceiling of five hectare on subsidy support and subsidy can be topped by state governments.

During the inaugural year of this programme (2015-16), Tamil Nadu had just 32,290 hectares under micro-irrigation. Then, that the State government had started giving additional subsidy to what was already provided by the Centre to small & marginal and big farmers by developing a website, “Micro Irrigation Management Information System” (MIMIS). Through this, the implementation from registration of beneficiaries to the final round of release of funds has been made online. It simplified the procedure and speeded up the approval process.

Recently, Tamil Nadu has topped the all-India level for micro-irrigation (MI), under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), with coverage of 2,06,853.25 ha for the FY 2019-20. A perusal of data on the PMKSY website shows that during the inaugural year of the programme (2015-16), Tamil Nadu had just around 32,290 hectares under micro-irrigation, lagging behind various states like Telangana (39,864 ha), Rajasthan (56,345 ha), Karnataka (64,220 ha), Andhra Pradesh (94,104 ha) and Gujarat (about 1.43 lakh ha) (krishijagran.com).

But now, it has come in the first position in micro-irrigation coverage & followed by Karnataka and Gujarat with 1,41,103.56 Ha and 1,08,322.00 Ha of coverage respectively. Interestingly, at the all-India level, 43.71 lakh ha of land were brought under micro-irrigation in the last 5 years.

The scheme is being successfully implemented in all the states across India and is being implemented in all the districts of Tamil Nadu. Knowing the user feedback on the benefits of this program will help policy makers take this to the next level. To find out, the study was conducted with 120 beneficiaries in Dindigul district and its results are discussed here.

Methodology

The study was conducted in Dindigul district of Tamil Nadu based on existence of maximum area under horticultural crops cultivation, State and Central Governments schemes are implemented every year to increase the production of horticultural crops and the district takes place third place in production of grapes cultivation in Tamil Nadu. Among the fourteen

blocks in Dindigul district Attur block was selected for this study based upon the maximum area under the cultivation of grapes. The Attur block consists of twenty two villages. The area under grapes cultivation with drip irrigation in each of these twenty two villages was obtained from the State Department of Horticulture. Considering the maximum area under grapes cultivation, five villages were selected for the study.

PMKSY scheme covers about 3571.80 hectares of area in Dindigul district. It recommended two types of micro irrigation system namely drip and sprinkler in this district. The State Horticulture Department recommended drip irrigation as most suitable and profitable irrigation method for horticultural crops. Dindigul district ranked third position in grape cultivation next to Theni and Coimbatore districts of Tamil Nadu with an area about 105 hectares. Keeping these perspectives in mind, the present study was undertaken to identify the perception of usefulness of PMKSY among the grape growers in Tamil Nadu. A sample size of 120 respondents was fixed for this study considering the limitations of time and other resources. From the list of farmers in the selected five villages, farmers who had cultivated grapes with drip irrigation under PMKSY scheme were identified. All the 120 respondents were identified from selected five villages by using the proportionate random sampling technique.

The perception of usefulness of the PMKSY scheme in grape cultivation was operationalised for the purpose of the present study as the expressed opinion of the participations about the procedure and services provided by PMKSY schemes.

As stated by Sivasubramanian (2003) the farmers were considered as the best indication of the functional aspects and information structure provided by the schemes. Hence in the present study, the participant farmers were contented as the respondents to study this aspect. Based upon the personal discussion with the farmers, field level extension workers, Deputy Director of Horticulture and the Staffs in Department of Horticulture, Government of Tamil Nadu, during my preliminary study, totally Eight dimensions were delineated to study the procedures and services of PMKSY scheme. Hence the experience of participant respondents was measured over the selected eight dimensions scale used to measure each of the dimension are as follows. The scoring procedure followed by Sivasubramanian (2003) was used in this study.

i. Benefit accrued by the respondents

This referred to the opinion of the respondent about the benefit accrued from PMKSY scheme. The opinion of the participants were obtained on a five point scale the points i.e. Most beneficial, Beneficial, Somewhat beneficial, Less beneficial and Least beneficial and it was assigned with the scores 5,4,3,2 and 1 respectively.

ii. Propaganda about the PMKSY scheme in the area

This referred to the efforts made by the Extension Functionaries of the PMKSY scheme to inform the potential beneficiaries about the existence of PMKSY its development programme. Incentives given under each programme, finally to persuade them to participate in the activities of PMKSY. The opinion of the respondents were obtained on a four continuum i.e. Informed with full details and also persuaded, Only informed with full details, Only informed with some details, Never even informed with full details and its were assigned with the scores 4,3,2 and 1 respectively.

iii. Method of availing benefits

This referred to the opinion of the respondents on the procedure they underwent of availing the benefits other than the subsidy, from the different programmes of PMKSY. Their opinion was ascertained on a five point continuum i.e. Very simple, Simple, Somewhat complicated, Complicated, High complicated, Most complicated and assigned with the scores of 5,4,3,2 and 1 respectively.

iv. Arranging services and supplies

This referred to the opinion of the responds about the services and supplies arranged by the Extension Functionaries of PMKSY. It was measured on a five point scale namely, Most arranged, Much arranged, Somewhat arranged, Less arranges, Least arranged and the scores of 5,4,3,2, and 1 were allotted respectively to quantify the response.

v. Timely arrangement of services and supplies

The opinion of the respondents about the timely input supplies arranged by the Extension Functionaries of PMKSY scheme was measured on five point continuum namely, Long before season, Little above season, Just in time, After the season, Late after season with the scores 5,4,3,2 and 1 respectively.

vi. Adequacy of services and supplies

The opinion of the participants about the adequacy of supplies arranged by the Extension Functionaries of PMKSY was measured on a five point continuum viz., More than required, Little above season, Little less than the required, Less than required with the scores 5,4,3,2 and 1 respectively.

vii. Method of obtaining subsidy

The opinion of the respondents on the method of obtaining subsidy was measured on a five point scale namely, Most easy, More easy, Neither difficult nor easy, More difficult, Most difficult with the scores of 5,4,3,2 and 1 respectively. By this, higher the score easier would be the procedure.

viii. Treatment given by the Officials

How the respondents were treated at the time of their contacts by the Officials attending on them were measured using a five point scale namely, Very cordial, Cordial, Neither cordial nor harsh, Harsh and Very harsh. The scores allotted for respective points were 5,4,3,2 and 1 respectively.

The scores of all the above eight aspects were studied separately to find out the perception of participants about the procedures and services of the respective programmes of PMKSY scheme in which they participated. For the purpose of discussion, first and the second scale point were clubbed as the most; the third point was retained as medium and the fourth fifth point were the least.

Interview schedule is a set of questions which are used to gather data from the respondents by an interviewer in a face to face situation. A well-structured interview schedule was prepared in English taking into consideration of the various objectives of the study. The schedule is given in Appendix-IV. Necessary precautions were taken to ensure that the questions in the schedule were unambiguous, concise, complete and comprehensive. Besides, the schedule was pre-tested in a non-sample area and necessary modifications were carried out before the final administration. Preliminary visits were made to get the basic data regarding the study area. Rapport was developed with the respondents through informal discussion. Data were collected by personal interview with the respondents in their farms and homes. The data collected were analyzed using percentage analysis and (ii) cumulative frequency

By adopting the methodology explained above, the data were collected, coded, tabulated, analyzed and interpreted. The findings and discussions are presented in the succeeding chapter.

Results and discussion

Perception about the PMKSY scheme was considered as a prerequisite for participation in the programmes. Hence the perception was studied under eight aspects and the results are presented with Tables 1 to 8.

I. Benefit accrued by the respondents

Table 1. Benefit accrued by the respondents through PMKSY scheme

(n = 120)

Sl. No.	Category	Number	Per cent
1.	Least beneficial	7	05.84

2.	Somewhat beneficial	29	24.16
3.	Most beneficial	84	70.00
	Total	120	100.00

It is interesting to see from the Table 1, that majority of the respondents perceived the PMKSY scheme as most beneficial (70.00 per cent) followed by somewhat beneficial (24.16 per cent) and Least beneficial (5.84 per cent). This finding is in line with findings of Sivapriyan (2018). Hence it concluded that the respondents expressed the usefulness of the PMKSY as most beneficial.

II. Propaganda about PMKSY

The Perception of respondents about on propaganda PMKSY scheme is reported in the Table 2.

Table 2. Perception of respondents on propaganda about PMKSY scheme
(n = 120)

Sl. No.	Category	Number	Per cent
1.	Only informed without given details	18	15.00
2.	Only informed with some details	38	31.66
3.	Fully informed with full details and also persuaded	64	53.34
	Total	120	100.00

It is observed from the Table 2, more than half of the respondents perceived as (53.34 per cent) fully informed with full details also persuaded, followed by only informed with some details (31.66 per cent) and only informed without given details (15.00 per cent). From this it may be inferred that most of the features about information were felt very satisfied to the respondents and also persuaded due to their participation. This finding is in line with findings of Latha (2015).

III. Methods of availing benefits

The Perception of respondents about on methods of availing benefits is reported in the Table 3.

Table 3. Perception of respondents on methods of availing benefits
(n = 120)

Sl. No.	Category	Number	Per cent
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1.	Very complicated	24	20.00
2.	Somewhat complicated	54	45.00
3.	Very simple	42	35.00
	Total	120	100.00

The details in Table 3 shows that nearly half of the respondents (45.00 per cent) expressed that the method of availing benefits were somewhat complicated followed by 35.00 per cent respondents expressed that it was very simple and 20.00 per cent of the respondents expressed that method of availing benefits was very complicated. This finding is in line with findings of Sivasubramanian (2003)

IV. Arranging services and supplies

The Perception of respondents about on arranging services and supplies is reported in the Table 4.

Table 4. Perception of respondents on arranging services and supplies

(n = 120)

Sl. No.	Category	Number	Per cent
1.	Least arranged	17	14.16
2.	Somewhat arranged	31	25.84
3.	Mostly arranged	72	60.00
	Total	120	100.00

The Table 4, vividly shows that most of the respondents (60.00 per cent) expressed arranging services and supplies under this scheme was mostly arranged followed by somewhat arranged (25.84 per cent) and least arrange (14.16 per cent) respectively. This might may due to the effort made by the Officials in the State Horticulture Department by supplying the services at correct time. This finding is in line with findings of Sivasubramanian (2003)

V. Timely arrangement of services and supplies

The Perception of respondents about on timely arrangement of services and supplies is reported in the Table 5.

Table 5. Perception of respondents on timely arrangement of services and supplies

(n = 120)

Sl. No.	Category	Number	Per cent
1.	Long before season	88	73.34
2.	Just in time	26	21.66
3.	Late after the season	6	05.00
	Total	120	100.00

It may be seen from the Table 5, that majority of the respondents (73.34 per cent), before the commencement of season they carry out the technical services and essential input provided by the concerned authorities to the grape growers would increase the adoption and it leads to production in this area. Hence majority of the respondents perceived that services and supplies were arranged long before the season or just in time. Late arrangement was reported only by very meagre percentage of the respondents (5.00 percent) due to improper communication. This finding is in line with findings of Sivasubramanian (2003)

VI. Adequacy of services and supplies

The Perception of respondents about on adequacy of services and supplies is reported in the Table 6.

Table 6. Perception of respondents on adequacy of services and supplies

(n = 120)

Sl. No.	Category	Number	Per cent
1.	More than required	19	15.84
2.	Just required	84	70.00
3.	Less than the required	17	14.16
	Total	120	100.00

Table 6, shows that nearly three fourth of the respondents (70.00 per cent) were expressed the perception on adequacy of services and supplies were just required followed by more than required (15.84per cent) and less than required (14.16per cent). This might be due to nature of the scheme and mutual cooperation with the Extension functionaries, respondents and implementing companies.

VII. Method of obtaining subsidy

The Perception of respondents about on method of obtaining subsidy is reported in the Table 7.

Table 7. Perception of respondents on method of obtaining subsidy

(n = 120)

Sl. No.	Category	Number	Per cent
1.	Most difficult	13	10.83
2.	Neither difficult nor easy	76	63.33
3.	Most easy	31	25.84
	Total	120	100.00

The Table 7, reveals that majority of the respondents (63.33 per cent) expressed that the method of obtaining subsidy was neither difficult nor easy followed by most easy (25.84 per cent) and most difficult (10.83 per cent). This is because of the friendly approach of the Officers and the treatment given by them leads to respondents to choose the neither difficult nor easy category. Only least number of the respondents expressed perception on most difficult because of the rigid procedures at the time of obtaining subsidies. This finding is in line with findings of Sivasubramanian (2003).

VIII. Treatment given by the Officials

The Perception of respondents about on method of obtaining subsidy is reported in the Table 8.

Table 8. Perception of respondents on treatment given by the Officials

(n = 120)

Sl. No.	Category	Number	Per cent
1.	Very cordial	115	95.84
2.	Neither cordial nor harsh	5	04.16
3.	Very harsh	--	--
	Total	120	100.00

It is evident from the Table 8, that there is no one was unsatisfied with the treatment given by the Officials. Majority of the respondents (95.84 per cent) had very cordial treatment by the Officers, followed by neither cordial nor harsh (4.16 per cent) of the PMKSY scheme. It

motivates the farmers to do their farming better. This finding is in line with findings of Sivasubramanian (2003).

Conclusion

Impact of PMKSY was judged by the perception of the respondents about the scheme. The set of the questions under eight aspects and those questions were directly encountered to the farmers to know their perception about the scheme. The analysis showed that majority of the respondents (70.00 per cent) perceived the PMKSY scheme as most beneficial, more than half of the respondents (53.34 per cent) perceived as fully informed with full details also persuaded. 45.00 per cent of the respondents expressed that the method of availing benefits were somewhat complicated. This analysis also showed that the most of the respondents (60.00 per cent) expressed arranging services and supplies under this scheme were mostly arranged and majority of the respondents (73.34 per cent) perceived that services and supplies were arranged long before the season. It also showed that 70.00 per cent of the respondents were expressed the perception on adequacy of services and supplies were just required and the majority of the respondents (63.33 per cent) expressed that the method of obtaining subsidy was neither difficult nor easy followed by most easy (25.84 per cent). It is also evident from the interview that majority of the respondents (95.84 per cent) had very cordial treatment by the Officers.

From this result indicated that maximum number of the respondents had positive and favourable perception towards the PMKSY scheme.

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