

IMPACT OF GOVERNMENT ADVERTISEMENTS ABOUT AGRICULTURAL INFORMATION IN SENSITISING RURAL FARMERS: A STUDY OF MARATHWADA REGION IN MAHARASHTRA

Prachi Bhogale* and Namrata Singha Roy**

Abstract

To stimulate the agricultural sector, the Ministry of Agriculture, Government of India, has initiated a myriad of welfare initiatives aimed at farmers, entailing a substantial financial commitment. A portion of this financial outlay is also allocated to the dissemination of pertinent information among the farming community. However, a pertinent question arises: does this information reach the rural farmers and do they avail the benefit? The present study attempts to address this issue. Based on a tested questionnaire, a primary survey was conducted in Marathwada region of Maharashtra where the incidence of agrarian crisis is insurmountable. The study found a limited impact of government advertisements regarding agricultural information on farmers in terms of increasing their awareness level. The primary conduit for agricultural information, as ascertained by the study, predominantly stems from informal sources. Among the socio-economic characteristics, only education and land ownership are found to have an impact on the level of awareness and their willingness to acquire information on agriculture. The percentages of farmers, who are aware of the scheme and get its benefits, do not even exceed 30 per cent, irrespective of the scheme under consideration. It was found that only limited farmers are taking benefit of the scheme even after receiving information. A general disinterest was observed among the farmers because of the heavy paperwork of availing those benefits. To engender a constructive transformation in farmers' awareness levels regarding agricultural schemes and programmes, a well-thought-out and strategic endeavour becomes indispensable.

Keywords: Farmer's Awareness, Agricultural Extension Programme, Agrarian Distress, Maharashtra, Rural India

*Student, MA Applied Economics, Department of Economics, Christ (Deemed to be University), Bengaluru - 560029, Karnataka; Email: bhogale.ravindra@eco.christuniversity.in

**Assistant Professor, Department of Economics, Christ (Deemed to be University), Bengaluru - 560029, Karnataka; Email: namrata.singharoy@christuniversity.in

Introduction

Mainstream economics theorise development as an active transformation of largely feudal societies into modern market-oriented capitalist economies. Theory says that agricultural development is essential for improving industrialisation (Kalecki, 1960). In contrast to this view, the theory of 'unbalanced growth' indicates that agriculture could not become a leading sector due to its weak backward linkages (Hirschman, 1958). On the eve of Indian independence, the planning authorities took the path of progress and attributed it towards investing in heavy-scale basic industries. Later, since the 1990s, it was expected that the transition would be faster and more efficient. The Indian economy has achieved an average of 6-7 per cent GDP growth annually in the last decade of its development and remains one of the world's fastest-growing major economies with 6.9 per cent in FY 22-23 as per a recent press release by World Bank (Press release, April 4, 2023). While the service sector as well as the industrial sector becomes the engine of growth, the agriculture sector remains a left-behind sector. According to the recent Economic Survey 2022-23. The contribution of agriculture to the GVA has decreased from 19.5 per cent in 2014-15 to 17.3 per cent in 2022-23. But in terms of employment generation, it is still the largest employer providing livelihood to 46.5 per cent of the total labour force with more than 60 per cent for rural areas (PLFS Report, 2020-21). The problem is largely associated with declining farm profitability, lack of ability to make use of advanced technologies and modern equipment, and an increasing disinterest and lack of motivation among the rural youth in farming (Nagaraj N. et al., 2016). The agriculture sector of India's economy can therefore be said to be in a state of crisis.

The government is taking a lot of initiatives to revamp the agricultural sector. Various schemes and programmes are launched by the Government of India, including the Soil Health Card Scheme, Pradhan Mantri Fasal Bima Yojana, National Agriculture Market (e-NAM), and National Pension Scheme tailored specifically for farmers. The fiscal

commitment to these endeavours is noteworthy; in the fiscal year 2018-19, a substantial sum of Rs. 67,800 crore was allocated to these major schemes as part of the expenditure budget outlined in the Union Budget 2019-20. Remarkably, in the Interim Budget for the fiscal year 2019-20, shortly preceding the elections, the government orchestrated a remarkable escalation in the budget allocated to the agricultural sector, resulting in a monumental surge of 107 per cent. This increase catapulted the budget from Rs. 67,800 crore in the revised budget estimates for 2018-19 to a substantial Rs. 1,40,764 crore. In addition to the funding directed towards the practical execution of these programmes, a segment of the budget is also earmarked for promotional activities. These promotional efforts encompass diverse mediums, such as print media (encompassing newspapers, posters, etc.), as well as modern digital channels, including mobile phones, radio, and television broadcasts. The primary objective of these promotional campaigns is to effectively disseminate awareness about each specific government scheme or programme, targeting both the general populace and the specific demographic groups it targets. The Union Minister of Information and Broadcasting, Mr Anurag Thakur, revealed that the Central government has expended a substantial sum of ₹6,491.56 crore on advertisements in print and electronic media since 2014 (as of 14th December, 2022, as reported by Hindustan Times). Notably, the Bureau of Outreach and Communication has managed the issuance of advertisements on behalf of various Ministries and Departments, primarily utilising electronic media platforms such as TV, radio, digital cinema, websites, and SMS.

Despite substantial financial investments in agricultural initiatives by the government, the distressing circumstances faced by farmers persist, giving rise to a distressing trend of farmer suicides throughout India. According to the data provided by the National Crime Records Bureau, the lamentable tally of 10,811 individuals associated with the agricultural sector (comprising farmers, cultivators, and agricultural labourers) tragically

took their own lives during the year 2021, constituting 6.6 per cent of the overall suicide victims in the nation (NCRB, 2021). This underscores a glaring disparity between the government's well-intentioned programmes for the betterment of farmers and the tangible impact of these initiatives on the ground. This disparity may commence with the lack of awareness among farmers regarding these programs, extending all the way to the challenges they face in accessing the benefits offered by the schemes.

Therefore, a question arises as to what extent does the dissemination of information regarding programmes and schemes reach the general public as well as to those groups of people to whom that particular scheme is directed. In the contemporary world, where the impetus for change and progress stems from information, the expansion of this knowledge must be meticulously tailored to accommodate the needs of the agricultural community. The dissemination of information related to agricultural pursuits can be achieved through a diverse array of channels, encompassing radio, television, mobile devices, and a plethora of social media platforms. There are very limited studies on the impact of advertisements on farmers' welfare. Limited indeed, a handful of literature originates from Nigeria, which has identified radio as an immensely potent medium for disseminating awareness among the farming community (Agwu, et al., 2008; Njoku, 2016; Mithamo, et al., 2015). Within the context of India, the scope of such investigations remains underexplored. A few studies, such as Das et al. (2012) and Ganesan, et al. (2013), have observed the influence of mobile phone usage on the rural economy and concluded that the proliferation of mobile phones is on the rise, attributing to their widespread penetration. Nevertheless, these mobile devices exhibit limitations stemming from factors such as the quality, timeliness, and credibility of the information they convey.

Furthermore, a noteworthy study conducted by Shaik, Jhamtani, and Rao (2004) examined the performance of three ICT projects in Madhya Pradesh, Maharashtra, and Andhra Pradesh. Their

analysis underscored concerns about enhancing the delivery of information to farmers. Concerning the role of producer organisations in improving service delivery to producers/farmers, the study by Cherukuri et al. (2014) observed that access to technology and other farm advisory services for producers within a producer organisation or partner arrangement is much more effective than for non-partners. A separate inquiry by Reddy et al. (2016) demonstrates that transformative shifts occurring within rural communities are partially attributed to market dynamics and, additionally, influenced by public policy initiatives. Sajesh and Suresh (2016), in their scholarly exploration, arrived at the conclusion that despite the presence of various agencies designed for agricultural extension, the extension system in India confronts formidable challenges rooted in financial, infrastructural, and human resource constraints.

A discourse paper authored by Glendenning and Ficarelli (2012) proffered that the potency of information delivered through ICTs gains greater significance when it is tailored to local contexts, augmenting its value and actionable nature, thereby yielding consequential effects on agricultural management. According to the meta-analyses of Fabregas et al. (2019), the dissemination of agricultural knowledge via mobile technologies in sub-Saharan Africa and India resulted in a 4 per cent increase in crop yields and a 22 per cent rise in the likelihood of adopting recommended agrochemical inputs. The conveyance of market intelligence can also engender systemic impacts, mitigating price disparities and reducing transactional overhead. A study conducted by Das P. and Pradip D. (2021) meticulously assessed the factors influencing the accessibility and usability of novel media, identifying barriers and charting shifts in farmer behaviour through online social marketing, thus inducing societal transformation. From a managerial standpoint, it behoves the government to extend services that educate agrarians and farmers about new media. Entrepreneurs in the realm of application and software development can tap into this sector to introduce tailored products for

farmers. The work of Suchiradipta B. and Raj S. (2018) delved into the utilisation of social media among agricultural extension professionals, elucidating their perceived benefits for agricultural progress. Organisations were found to be catching up in social media adoption but lagged in implementing concrete policies to steer the application of digital tools.

From the existing literature, it was found that only a few studies have examined the effectiveness of digital media, including radio, television and mobile phones in the context of India. Also, the studies that try to gauge the impact of television in creating awareness among farmers were very limited. Since radio and television broadcasts can be controlled by the government, this study mainly focuses on the awareness level of the farmers about different schemes for them, which the government tries to increase through radio and television advertisements and programmes.

Research Objectives

With this background, the present study has the following objectives:

1. To understand the sources through which farmers acquire agricultural information
2. To check whether there is any relationship between the socio-economic characteristics of an individual and their awareness level of different government initiatives for them.
3. To find out whether the government advertisements broadcasted on radio and television reach the rural farmers.
4. To examine whether the farmers get benefit of the schemes or programmes designed for them, after acquiring the information about it.

Research Methods

For this study, purposive sampling technique is used. Since the objective of this study is to assess the impact of government advertisement through radio and television on rural farmers, individual farmer is taken as the sampling unit. According to

the National Crime Record Bureau, Maharashtra ranks first in the number of suicides committed. Within Maharashtra, Vidarbha and Marathwada are the two regions that witness the highest number of farmer suicide cases. There are few studies (Mohanty, 2005; Mishra, 2006; Dongre & Deshmukh, 2012) that deal with farmer suicides in Vidarbha region. But there is hardly any study that dealt with Marathwada region. Considering this fact, this study has selected a sample from Marathwada region of Maharashtra where the incidence of agrarian distress is maximum. Two villages of Marathwada region, namely Ganori and Shelgaon, were chosen for the study. Forty farmers were interviewed individually with the help of a pre-tested structured questionnaire. The socio-economic variables include age, gender, marital status, education level, activity status (main activity as well as allied activity), ownership of land and land size. Along with this, certain other information such as whether the respondents have bank account, Aadhaar card, LPG cylinders, etc., were also acquired. For this study, certain concepts have been used, and on that basis, the questionnaire was prepared. These can be defined as follows:

- **Government Advertisement:** It refers to the advertisements about agricultural information broadcast by the government through television and radio
- **Agricultural Information:** It refers to any information related to agriculture. It includes information from farming activities, weather information, crop output prices, crop insurance, and agriculture marketing.
- **Sensitisation:** It refers to the increase in awareness level of the farmers regarding various schemes and programmes for them.
- **Awareness:** It refers to a fair knowledge of the different government schemes that are designed by the government.

Data was analysed and computed using descriptive statistics. The cross-tabulation technique was used to explore the data in different

dimensions. Since most of the responses are discrete, the Chi-square test was performed to establish the arguments statistically.

Findings and Discussion

General Information of Surveyed Individuals:

General information about the surveyed individuals of the study region is presented in Table 1. The total number of surveyed individuals was 40, including 85 per cent males and 15 per cent females. Among the sample of respondents, only three (about 7.5 per cent) do not own land. The sample included farmers owning land from 0.5 acres to about 5 acres. Fifteen per cent of the individuals have less than one-acre land, 27.5 per cent have 1-2 acres, 20 per cent have 2-3 acres and 37.5 per cent have more than 3-acre land. The

ages of the respondents ranged between 25 years to 80+ years. About 45 per cent of the respondents were in the age group of 45-64 years, followed by 35 per cent in the age group of 25-44 years and 17.5 per cent belonged to 65 years and above. Majority of the respondents (58 per cent) have Secondary/Higher Secondary level education. The major occupation is farming where 87.5 per cent of the individuals are involved. The other activities involved farm labour, daily wage work and domestic work. Fifteen per cent of the respondents have an average annual income of less than Rs.25000 and the majority have an income within the limit of Rs.25000-Rs.75000 per year. Also, 27.5 per cent of respondents reported annual income of more than Rs.1 lakh.

Table 1

General Information on Surveyed Individuals

	Characteristics	Count
Age	Less than 25 years	1 (2.5)
	25-44 years	14 (35)
	45-64 years	18 (45)
	65 & above	7 (17.5)
Education	Illiterate	8 (20)
	Primary & Upper Primary	6 (15)
	Secondary & Higher Secondary	23 (57.5)
	Graduation	3 (7.5)
Gender	Female	6 (15)
	Male	34 (85)
Occupation	Own farm	35 (87.5)
	Farm Labourer	2 (5)
	Daily Wage Worker	2 (5)
	Domestic Work	1 (2.5)
Area of Land	0-0.99 acre	6 (15)
	1-1.99 acre	11 (27.5)
	2-2.99 acre	8 (20)
	3+ acre	15 (37.5)
Annual Income (in Rs.)	0-24999	6 (15)
	25000-49999	11 (27.5)
	50000-74999	11 (27.5)
	75000-99999	1 (2.5)
	1 lakh+	11 (27.5)

Source: Authors' calculation.

Note: Figures in parentheses are percentage.

Sources of Agricultural Information: The first objective of this research was to understand the different sources of agricultural information. For this research, agricultural information is defined as information about different schemes, programmes or different initiatives for farmers launched by the government. Agricultural information is dispersed to farmers through various sources. Some of them can be mentioned as newspapers, radio, television, mobile, and government and non-government organisations, fellow farmers, traders and shopkeepers. To understand the composition of sources of agricultural information, the respondents were interviewed regarding their sources of information concerning crop output prices, weather information, crop insurance, chemical fertilizers, seed selection and storage. Table 2 summarises the responses of the farmers.

The primary objective of this research was to comprehend the diverse origins of agricultural information. In the context of this study, agricultural information encompasses data concerning various government-launched schemes, programmes, and initiatives launched for the benefit of farmers. This type of information reaches farmers through a multitude of channels, but not limited to newspapers, radio broadcasts, television programmes, mobile platforms, governmental and non-governmental organisations, fellow farmers, as well as traders and shopkeepers. To gain insight into the composition of these sources of agricultural information, the researchers conducted interviews with respondents. These interviews specifically focused on the origins of information related to crop output prices, weather forecasts, crop insurance, chemical fertilizers, seed selection, and storage practices. The summarised outcomes of these interviews are presented in Table 2, providing a concise overview of the farmers' responses.

Surprisingly, 'fellow farmers' emerged as the most important source of agricultural information for farmers other than television or radio. Nearly 58 per cent of the respondents got information on crop output prices from fellow farmers. Information on fertilizer and seeds is also supplemented by fellow farmers. During the interview, it also came to light

that for the selection of seed and storage or chemical fertilizers, farmers prefer fertilizers or seeds used in the past year. The tragedy is that nearly 20 per cent and 25 per cent of the respondents, respectively, did not get any information on the weather forecast and crop insurance schemes. The general observation of Table 2 is that the major sources of agricultural information for farmers (nearly 75 per cent) are through informal sources like fellow farmers, traders, shopkeepers, and past experiences rather than through formal sources like government organisations, television, radio, etc. An exception is 'weather information', where a reasonable amount of agricultural information (nearly 60 per cent) is received through television. One of the possible explanations for this is the fact that most of the farmers watch news bulletins and as almost all news bulletins end with weather forecast; therefore, gradually television has become an important source of weather information.

Socio-economic Characteristics of Respondents and Their Awareness Level: The secondary objective of this study was to scrutinise whether the socio-economic characteristics of the respondents have any impact on their level of awareness about different government schemes and programmes broadcast through radio and television. The socio-economic characteristics included education level, gender, income level, land ownership and the like.

It is a general understanding that education has a positive impact on increasing the awareness level of people. Table 3 helps to understand the relationship between education level and general awareness. General awareness levels denoted by 'Aware' and 'Not Aware', indicate whether the respondents are aware of the advertisements or programmes about agricultural information that are broadcast by the government on either radio or television.

Illiterates are the worst affected as 75 per cent of them are unaware of broadcasting. As the level of education increases from primary to secondary to graduation, the level of awareness of the

Table 2*Distribution of Respondents across Sources of Agricultural Information (No. of Respondents)*

Source of information	Items of Information				
	Crop Output prices	Chemical fertilizer	Seed selection and storage	Weather information	Crop Insurance
No Information	1 (2.5)	0 (0)	1 (2.5)	8 (20)	10 (25)
Fellow farmers	23 (57.5)	15 (37.5)	17 (42.5)	5 (12.5)	11 (27.5)
NGO & other organizations	0 (0)	2 (5)	1 (2.5)	0 (0)	6 (15)
Television	6 (15)	7 (17.5)	5 (12.5)	24 (60)	12 (30)
Radio	1 (2.5)	0 (0)	0 (0)	1 (2.5)	0 (0)
Mobile	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)
Traders and Shopkeepers	9 (22.5)	9 (22.5)	11 (27.5)	0 (0)	1 (2.5)
Past experiences	0 (0)	7 (17.5)	5 (12.5)	0 (0)	0 (0)

Source: Authors' calculation.*Note:* Figures in parentheses are percentage.**Table 3***Relationship between Education Level and General Awareness (No. of Respondents)*

Education level	Not Aware	Aware	Total
Illiterate	30 (75)	10 (25)	40 (100)
Primary & Upper primary	26.68 (66.7)	13.32 (33.3)	40 (100)
Secondary & higher Secondary	15.64 (39.1)	24.36 (60.9)	40 (100)
Graduation	0 (0)	40 (100)	40 (100)
Total	19 (47.5)	21 (52.5)	40 (100)
Chi-square Test			
	Not Aware	Aware	Total
Illiterate	6	2	8
Educated	12	20	32
Grand Total	18	22	40
Pearson $\chi^2(1) = 3.636^{**}$			

Source: Authors' calculation.*Note:* (i) Figures in parentheses are percentage.

(ii) Mark in * to show the significance, ***=1 % significant; **=5% significant; *= 10 % significant

respondents in terms of watching TV or radio has increased to 33.3 per cent, 60.9 per cent and 100 per cent, respectively. Thus, it can be affirmed that the level of education exerts a positive influence on the overall awareness level of the populace.

A Chi-square test has been performed between awareness and education level where the group 'educated' has been defined as people with primary and above education. The null hypothesis is that

there is no dependence between education and awareness level. Since the P value is significant at 10 per cent level, the null hypothesis is rejected. Hence, there is a statistically significant dependence between education level and awareness.

Table 4 tries to see the possible correlation between the awareness levels of the individuals with the size of the land they are holding.

Table 4

Relationship between size of Landholding and General Awareness Level (No. of Respondents)

Area	Not Aware	Aware	Total
0-0.99 acre	26.68 (66.7)	13.32 (33.3)	40 (100)
1-1.99 acre	21.8 (54.5)	18.2 (45.5)	40 (100)
2-2.99 acre	20 (50)	20 (50)	40 (100)
3+ acre	13.32 (33.3)	26.68 (66.7)	40 (100)
Total	19 (47.5)	21 (52.5)	40 (100)
Chi-square Test			
	Not Aware	Aware	No of Obs
<=1 acre	10	3	13
>1 acre	8	19	27
No. of Obs	18	22	40
Pearson chi2(1) = 7.9300***			

Source: Authors' calculation.

Note: (i) Figures in parentheses are percentage.

(ii) Mark in * to show the significance, ***=1 % significant; **=5% significant; *= 10 % significant

A general observation is that, as the size of their land owned increases, the general awareness of the respondents goes up. One possible explanation for this result could be the disinterest of the people who own smaller lands. Among the different government-run schemes and programmes for the farmers, the benefit of these schemes generally belongs to farmers holding a larger land (at least 1.5-2 acres of land). So, there

is a general disinterest among farmers holding smaller lands to even spend their time acquiring information and being aware of any of these schemes. The p-value of the Chi-square test (1 per cent level significant) confirms that there is a strong association between landholding and awareness level.

Although the study found a significant relationship between education and the size of

owned land with increase in awareness levels of the farmers, gender did not seem to have any impact on their awareness level. However, income did seem to have a certain impact on the general awareness level of the respondents. Table 5 depicts this relationship.

A broad observation reveals that there exists a positive correlation between the extent of land ownership and the overall consciousness of the respondents. A plausible explanation for this outcome could be the lack of interest among individuals who possess smaller parcels of land. Among the diverse governmental initiatives aimed at assisting farmers, the advantages of these programmes predominantly accrue to those with larger landholdings (typically at least 1.5-2 acres).

Consequently, farmers with smaller landholdings generally display a diminished inclination to invest their time in acquiring information or being cognisant of such initiatives.

The statistical significance of the Chi-square test (at the 1 per cent significance level) substantiates a robust association between landholding size and the level of awareness. While a significant connection was established between education level, land ownership size, and heightened awareness among farmers, gender did not appear to exert any discernible influence on their level of awareness. However, income did exhibit a certain impact on the overall awareness level of the respondents. This relationship is illustrated in Table 5.

Table 5

Relationship between Income and General Awareness Level (No. of Respondents)

Income (Rs.)	Not Aware	Aware	Total
0-24999	33.32 (83.3)	6.68 (16.7)	40 (100)
25000-49999	36.36 (90.9)	3.64 (9.1)	40 (100)
50000-74999	7.28 (18.2)	32.72 (81.8)	40 (100)
75000-99999	0 (0)	40 (100)	40 (100)
1 lakh+	3.64 (9.1)	36.36 (90.9)	40 (100)
Chi-square Test			
	Not Aware	Aware	No of Obs
Below average income	10	3	13
Above average income	8	19	27
No. of Obs	18	22	40
Pearson $\chi^2(1) = 3.7400^{***}$			

Source: Authors' calculation.

Note: (i) Figures in parentheses are percentage.

(ii) Mark in * to show the significance, ***=1 % significant; **=5% significant; * = 10 % significant

When the farmers were asked about their annual incomes, they quoted an income range with a large variation. This divergence in their earnings stems from the contingent influence of weather patterns and agricultural yield, which exhibited substantial fluctuation. To be able to check the impact of income levels and general awareness

and to counter the variability of the income ranges, the mean value of the incomes of the farmers was taken. This connection is elucidated in Table 5.

From Table 5, it can be noticed that an increase in income at lower levels does not add to the awareness of the respondents. On the other hand,

at higher levels of income, there is a significant increase in the awareness level of the farmers. The reason for this behaviour is also the same as mentioned above. The benefits of the schemes are many a time received after an initial self-investment (as in the case of farm pond scheme or well irrigation scheme). According to a few farmers, in order to avail the benefits of farm ponds, they needed to invest a small amount of around Rs.25000. Moreover, they experienced lack of assistance beyond the initial 5-year period when repairs were essential due to wear and tear. Consequently, farmers with limited income exhibit a pervasive lack of interest in familiarising themselves with any scheme, let alone investing time in it. The correlation between awareness and income levels also bears statistical significance at the 5 per cent threshold.

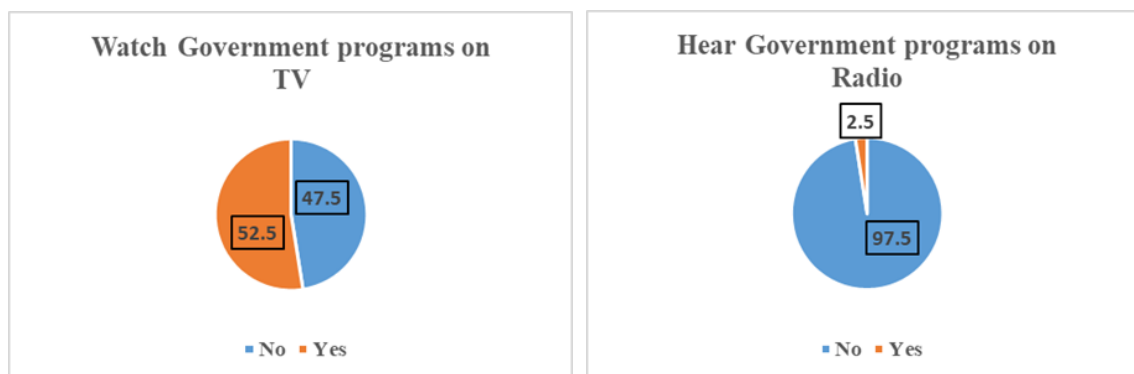
Although socio-economic factors have found diversified awareness responses regarding government initiatives to disseminate agricultural information, certain other initiatives have reached

the farmers irrespective of their education level, ownership of land and gender. Remarkably, nearly 98 per cent of the interviewees possessed bank accounts, and the entirety of the respondents, a full 100 per cent, possessed Aadhaar cards. Additionally, LPG connections have been extended to approximately 85 per cent of the surveyed individuals.

Reach of Government Advertisement Broadcasted on Radio and Television to Rural Farmers: Examining the role of government advertisement in sensitising rural farmers is one of the fundamental objectives of this research. The term 'sensitising', in this context, pertains to assessing the extent to which government advertisements disseminating agricultural information via radio and television reach the farmers in rural areas. Considering this fact, Figure 1 tries to capture the percentage of people who have watched or heard government advertisements, respectively, on television and radio.

Figure 1

Percentage of Respondents Following Government Advertisements on Television and Radio



Source: Author's calculation from primary survey.

From Figure 1, it is evident that slightly more than half the sample (specifically 52.5 per cent) views government advertisements and programmes dedicated to farming through television broadcasts. On the other hand, the percentage of farmers listening to government advertisements and programmes dedicated to farming on the radio is extremely low accounting for

only 2.5 per cent. The low percentage of radio listeners can be attributed to the fact that only 10 per cent of the respondents (as mentioned by them) have radio sets at their homes as indicated by the respondents. In contrast, the low viewership of television advertisements and programmes is largely attributed to the lack of sufficient free time available for farmers. On average, the respondents

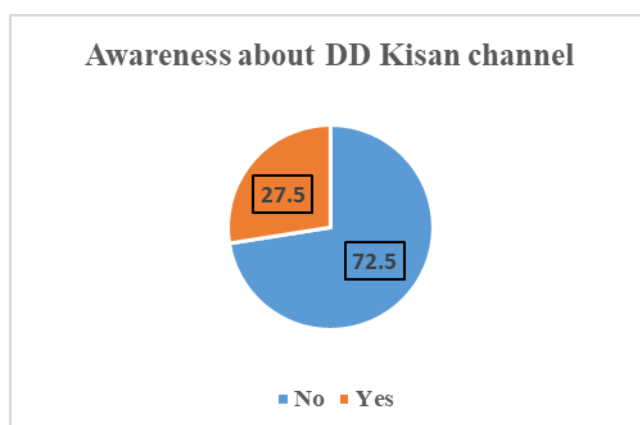
watched television merely for an hour a day, with this span further apportioned among various categories, including entertainment, spiritual and devotional content, news, and agricultural programmes. Of this one-hour duration, the segment dedicated to agricultural programmes was even more reduced. The most commonly viewed farming-related programmes were “Aamchi Mati Aamchi Manase”, “Krishidarshan” and

“Mahacharcha”. These programmes were telecasted on the regional channel DD Sahyadri in the regional language Marathi.

In 2015, the ruling government launched DD Kisan, a new channel dedicated 24X7 for farming-related programmes. Figure 2 displays the awareness of respondents about DD Kisan channel.

Figure 3

Awareness of Respondents about DD Kisan Channel (in percentage)



Source: Author's calculation from primary survey.

When queried regarding DD Kisan, a mere 27.5 per cent of the respondents exhibited awareness of this broadcasting channel. Within this group, a meagre 81 per cent indicated active viewership. Difficulty in understanding the Hindi language in which DD Kisan is exclusively transmitted is cited as a key reason for others not watching it. This linguistic obstacle dissuaded individuals from engaging with the channel. The average duration of engagement for those who are aware of and watch DD Kisan is only about 30-40 minutes.

The study has also made specific initiatives to test the awareness of the farmers pertaining to specific government programmes like DD Kisan and Kisan Call Centre across the different levels of education. The findings are presented in Table 6. Evidently, at lower levels of education, the awareness about both initiatives is low. However, with increasing levels of education, awareness also

seems to improve. Yet, a significant impact of education is not observed until graduation. Between the two aforementioned programmes, the Kisan Call Centre demonstrates a statistically significant correlation with the level of education, whereas such a relationship is not discerned with DD Kisan.

Do Farmers Get Benefit of the Programmes Designed for Them?

What happens when the farmers get information about any certain scheme? Do they make any moves to avail the benefits of the programme? Do they receive any benefits? The fourth objective of this study tries to address these questions.

To get the response of whether they avail the benefits of the programmes, the respondents were asked a direct question regarding the same.

Table 6*Impact of Education on Awareness about DD Kisan Call Centre (No. of Respondents)*

Education Level	DD Kisan			Kisan Call Centre		
	Not Aware	Aware	Total	Not Aware	Aware	Total
Illiterate	35 (87.5)	5 (12.5)	40 (100)	40 (100)	0 (0)	40 (100)
Primary & Upper Primary	33.32 (83.3)	6.68 (16.7)	40 (100)	26.68 (66.7)	13.32 (33.3)	40 (100)
Secondary & Higher Secondary	27.84 (69.6)	12.16 (30.4)	40 (100)	26.08 (65.2)	13.92 (34.8)	40 (100)
Graduation	13.32 (33.3)	26.68 (66.7)	40 (100)	13.32 (33.3)	26.68 (66.7)	40 (100)
Total	29 (72.5)	11 (27.5)	40 (100)	28 (70)	12 (30)	40 (100)
	Chi-square Test			Chi-square Test		
	Not Aware	Aware	No of Obs	Not Aware	Aware	No. of Obs
Illiterate	7	1	8	8	0	8
Educated	22	10	32	20	12	32
No. of Obs	29	11	40	28	12	40
Pearson chi2(1) = 1.1285			Pearson chi2(1) = 4.2857**			

Source: Authors' calculation.

Note: (i) Figures in parentheses are percentage.

(ii) Mark in * to show the significance, ***=1 % significant; **=5% significant; *= 10 % significant

However, to address the query of whether the respondents derived advantages from the initiative, they were subjected to queries specific to individual programmes. Table 7 depicts the responses of the individuals with respect to specific government schemes such as Minimum support prices, Soil Health Card scheme, Crop Insurance scheme, Farmer Pension scheme, Farm pond scheme, etc. The respondents were asked whether they were aware of the given schemes and whether they received any benefit from these programmes. For the purpose of this study, a respondent is considered to have received benefit if he or she has got benefit of at least one or more schemes mentioned above. The responses of the respondents were categorised into four combinations. As can be seen from Table 7, the

percentage of farmers who were aware of the scheme and got its benefits does not exceed even 30 per cent irrespective of the scheme under consideration. For any given scheme, the percentage of farmers who did not get the benefit lies between 70 per cent to even 100 per cent. This serves as evidence of shortcomings in the proper execution of these schemes. One plausible explanation for this might be the source of information. Table 8 demonstrates that 70 per cent of respondents, who acquired information through formal channels, have indeed reaped benefits. In contrast, 60 per cent, who obtained information from informal sources, were not able to access these benefits. This correlation has been statistically established and holds significance at the 10 per cent level.

Table 7

Awareness of Respondents and Benefits with Respect to Various Government Schemes (No. of Respondents)

Options	Minimum Support Prices	Crop Insurance Scheme	Farmer Pension Scheme	Direct help for farmers	Soil Health card	SMS for farmers	Farm Imports	Well Irrigation	Farm Ponds
Are aware, got benefit	2 (5)	11 (27.5)	4 (10)	4 (10)	6 (15)	0 (0)	1 (2.5)	2 (5)	1 (2.5)
Are aware, but no benefit	25 (62.5)	17 (42.5)	18 (45)	7 (17.5)	19 (47.5)	16 (40)	33 (82.5)	16 (40)	22 (55)
Not aware, no benefit	13 (32.5)	12 (30)	16 (40)	29 (72.5)	15 (37.5)	24 (60)	6 (15)	22 (55)	17 (42.5)
Not aware, but got benefit	0 (0)	0 (0)	2 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total	40 (100)	40 (100)	40 (100)	40 (100)	40 (100)	40 (100)	40 (100)	40 (100)	40 (100)

Source: Authors' calculation.

Note: Figures in parentheses are percentage.

Table 8

Source of Information and Government Benefits (No. of Respondents)

	Formal	Informal	Total
No benefit	12 (30)	24 (60)	40 (53)
Received benefit	28 (70)	16 (40)	40 (48)
Total	40 (100)	40 (100)	40 (100)
Chi-square Test			
	Formal	Informal	No. of Obs
No benefit	3	18	21
Received benefit	7	12	19
No. of Obs	10	30	40
Pearson $\chi^2(1) = 2.7068$			

Source: Authors' calculation.

Note: (i) Figures in parentheses are percentage.

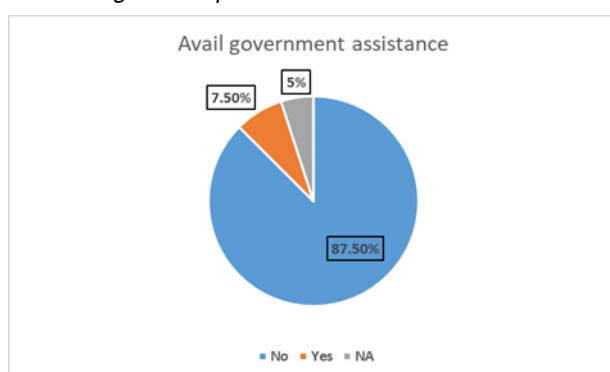
(ii) Mark in * to show the significance, ***=1 % significant; **=5% significant; *= 10 % significant

The heavy rains that lasted till almost December 2019 have resulted in massive crop damage. The primary cultivars under scrutiny in this geographical domain encompass cotton and corn. Regrettably, these agricultural staples incurred severe devastation as a result of the prolonged precipitation. Approximately, 95 per cent of the respondents suffered due to this natural

calamity, and the Government of Maharashtra had declared relief packages for the farmers. Subsequently, the respondents were queried regarding their receipt of the aforementioned relief packages or any form of governmental assistance. The resultant responses have been illustrated in Figure 4.

Figure 4

Percentage of Respondents Who Availed Government Assistance



Source: Author's calculation from primary survey.

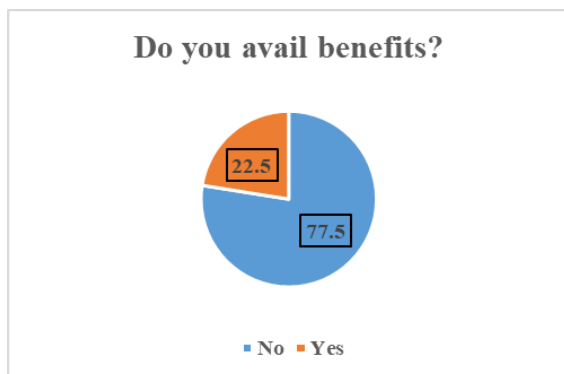
In Figure 4, NA stands for Not Applicable. The 5 per cent of respondents, who did not suffer because of heavy rains, come under the category of Not Applicable.

However, the remaining 87.5 per cent of respondents were compelled to confront the ravages of the natural calamity unaided. One of the pivotal reasons elucidated by the participants for their failure to access the government's assistance stemmed from the intricate procedural labyrinth entailed in pursuing these benefits. The agricultural populace was required to furnish photographic evidence of the inflicted crop damage to the respective authorities, precipitating a subsequent investigative process prior to reaping the rewards. Regrettably, as elucidated by the respondents, the majority of farmers are equipped with rudimentary mobile devices unsuited for capturing images. Even in instances where such a functionality exists, a substantial portion of these individuals lack the proficiency to operate it. Consequently, they found

themselves unable to dispatch the photographic evidence of the decimated crops to the authorities, precluding any governmental remuneration.

Up to this juncture, our discourse has centred on the efficacy of the farmers' involvement in various schemes. Let us now shift our attention to an alternative facet: the farmers' inclination to partake in said schemes. It tries to capture the willingness of the respondents to avail the benefits of any scheme that is designed for them. Figure 5 depicts the responses of the farmers to the question of whether they take advantage of the schemes after they receive information about it.

As is evident from Figure 5, a mere 22.5 per cent of the respondents try to take benefit of the government programmes and schemes tailored for their benefit. It shows a general disinterest among the farmers to apply to avail any benefits for them. When asked about their reasons for not availing any benefits, the farmers put forth a variety of explanations. Some said that they did not receive

Figure 5*Percentage of Respondents Availing of Government Schemes*

Source: Author's calculation from primary survey.

information in time while a few opined that the information they received was incomplete. Some farmers stated that the procedure involved in availing any benefit is quite complex as well as time-consuming. A subset of farmers even raised the issue of corruption in this context. Collectively, these factors portray the disinterest among farmers to avail any benefit.

Limitations of Study

The limitations of this study are as follows:

1. This study has data limitations due to time constraints. It covers only two villages.
2. Since the data was collected from the farmers, there is a problem of reliability of responses concerned with their demographic characteristics like age and education level.
3. Since the respondents could not always recollect or remember the specific agricultural programme that they viewed or listened to, this study could not get information on exact programmes.

Conclusion

The primary objective of the study was to investigate the efficacy of government-sponsored radio and television advertisements disseminating

agricultural information and their consequential influence on farmers' awareness levels. Apart from that, it also attempted to understand the composition of the respondents' sources of information about different aspects related to farming. Finally, it tried to investigate whether the benefits of government initiatives are availed by the farmers after receiving the information of the same.

The overall impact of government advertisements on television and radio in sensitising the farmers is found to be very limited. The impact of advertisements on radio is limited because a majority of the farmers do not have a radio set at their home as mentioned by respondents. Conversely, with regards to television, the efficacy of these advertisements is limited mainly because of the lack of availability of time with the farmers. To a large extent, farmers are getting farming-related information from informal sources, including fellow farmers, relatives, traders, shopkeepers and so on. Consequently, a noticeable information asymmetry persists among farmers. Regarding the utilisation of the information they receive about various schemes, their actual uptake of benefits remains notably limited. This issue is further exacerbated in the case of marginal farmers because they own a small farmland. Their predicament is epitomised by the adage, 'The poor remain poor because of their poverty.'

Policy Recommendations

After realising the existence of a wide gap between the government's efforts to disseminate farming-related information - information about various government programmes for farmers and the information actually received by farmers - this study suggests the following policy recommendations from the research conducted:

General Suggestions

- The government should regularly conduct surveys in order to ascertain the efficacy of the information it disseminates to farmers.
- After understanding the composition of sources of information, the government should make more use of the specific source, which constitutes a major portion of that composition, to disburse farming information.
- In addition, it is recommended that the government should reduce the complexity of procedures for availing benefits so that the

farmers will be incentivised to acquire the benefits.

- In a similar vein, an alternative suggestion would be to reallocate funding for radio and television advertising towards other channels of information distribution, as a means to enhance effectiveness.

Suggestions Specific to Radio and Television Advertisements and Programmes

Since a majority of farmers watch television for a limited time in the evening, the most important advertisement should be broadcast at that time, specifically around 7 PM.

Information in the vernacular languages is found to be highly effective when it comes to increasing the rate of acquiring information about farming. It is strongly recommended to intensify the broadcast of agricultural information in indigenous or regional languages.

Author's Contribution:

Prachi Bhogale: Conceptualisation, methodology, data collection, formal analysis, and preparation of first draft

Namrata Singha Roy: Conceptualisation, methodology, formal analysis, validation, writing review and editing, and supervision

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