Awareness and Perception of Government Agricultural Schemes Among Rural Farmers: A Study of Media Use and Policy Effectiveness

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Abstract

This study investigates how rural farmers access agricultural information and their level of awareness, perception, and utilization of government agricultural policies and schemes. Research conducted in the Sohna rural area with a sample of 103 farmers, the research aims to understand the relationship between media exposure and policy awareness. Using a structured questionnaire, the study collected data on farmers' preferred information sources, awareness of agricultural schemes, participation in government training, and perceptions of the effectiveness of these policies.

This study highlights the discrepancy between media exposure and actual policy utilization, emphasizing the need for more targeted and inclusive communication strategies. It recommends strengthening grassroots-level training, improving digital literacy, and ensuring local-language dissemination of information. These measures are essential for enhancing farmer engagement and maximizing the impact of agricultural policies in rural communities.

Keywords: Rural Farmers, Agricultural Policies, Mass Media, Policy Awareness, Government Schemes

Introduction

Agriculture remains the backbone of rural economies in developing nations, playing a pivotal role in livelihood sustenance, employment generation, and food security (FAO, 2020). In India, more than 58% of the population depends directly or indirectly on agriculture, making it a critical sector for socio-economic development (Ministry of Agriculture & Farmers Welfare, 2022). The effectiveness of agricultural development programs is intrinsically linked to farmers' awareness and understanding of existing government policies, subsidies, and support mechanisms. Awareness determines utilization, and utilization influences productivity and welfare outcomes (Anderson & Feder, 2004).

Agricultural extension services have traditionally acted as the bridge between policy formulation and on-ground implementation. These services are essential in disseminating knowledge about new technologies, farming practices and government schemes to rural farmers

(Birner et al., 2009). The gap between extension efforts and actual policy uptake continues to persist, especially in regions where educational, technological, and infrastructural limitations prevail.

A substantial body of literature emphasizes that farmers' access to timely, relevant, and actionable information significantly impacts their farming decisions, adoption of innovations, and participation in development programs (Aker, 2011; Feder, Just, & Zilberman, 1985). communication channels such as mass media, mobile technology, and digital platforms have emerged as critical tools in enhancing agricultural knowledge systems, access to these communication means is not uniform and factors such as literacy levels, internet connectivity and socio-economic status continue to influence the reach and effectiveness of agricultural information dissemination (Meera, Jhamtani, & Rao, 2004).

Government agricultural policies in India encompass a wide array of support measures including crop insurance schemes, minimum support price (MSP) guarantees, soil health card programs, direct benefit transfers (e.g., PM-Kisan) and subsidized credit and inputs (Planning Commission, 2014). While well-structured, these initiatives often fall short in achieving their full potential due to ineffective outreach and lack of farmer engagement. The issue is further compounded by challenges in policy communication and limited access to personalized advisory services (Glendenning, Babu, & Asenso-Okyere, 2010).

The advent of digital transformation in agriculture characterized by the increasing penetration of smartphones and internet services in rural India, presents both opportunities and challenges. Platforms such as mobile applications, SMS services and government portals now offer new avenues for policy dissemination. Digital divides rooted in gender, age, education, and income continue to restrict equitable information access (Mittal & Mehar, 2012).

It becomes essential to assess how farmers receive agricultural information, the sources they trust—including mass media—their awareness levels regarding key agricultural schemes, and their perceptions of policy effectiveness. Mass media plays a vital role in shaping farmers' awareness by serving as a primary source of policy-related information through television, radio, newspapers, and increasingly, digital platforms. This study addresses this gap by conducting an empirical investigation in the rural Sohna region, analysing data from 103 farmers. It examines the interplay between mass media exposure, other information sources, demographic factors, and the extent to which farmers utilize and benefit from government agricultural policies.

By identifying communication gaps, barriers to policy access, levels of mass media engagement, and farmer perceptions, this research aims to inform future agricultural extension strategies and contribute to more inclusive, responsive, and effective policy frameworks tailored to the needs of rural communities.

Research Objectives
1.   To identify farmers' preferred Mass Media sources of agricultural information.
2.   To assess awareness and understanding of key government agricultural policies and schemes.
3.   To evaluate farmers' participation in government training, access to materials, and financial support.

4.   To examine perceptions of policy effectiveness and identify communication and implementation gaps.

Research Questions
1.   Which mass media sources do farmers prefer for accessing agricultural information?
2.   How aware and knowledgeable are farmers about government agricultural policies, schemes and subsidies?
3.   What is the extent of farmers' participation in government training and their access to materials and financial aid?
4.   How do farmers perceive the effectiveness of government policies and what communication or implementation challenges do they encounter?

Review of Literature
Agricultural extension has undergone a significant transformation from the traditional top-down transfer-of-technology approach to more participatory and farmer-centric models. Birner et al. (2009), *"From Best Practice to Best Fit: A Framework for Designing and Analyzing Agricultural Advisory Services"* emphasize that effective extension systems must acknowledge farmers' heterogeneity and tailor communication strategies to diverse farmer needs. The literature consistently underscores the necessity of utilizing multiple information channels to effectively reach heterogeneous farming populations.

Aker (2011), *"Dial 'A' for Agriculture: A Review of Information and Communication Technologies for Agricultural Extension in Developing Countries"* highlights the transformative role of information and communication technologies (ICTs) in agricultural extension. Tools such as mobile phones, radio, and internet-based platforms have proven powerful in disseminating critical agricultural information, weather updates, and market prices to farmers, particularly those in remote locations. However, the efficacy of these channels is influenced by contextual factors including literacy rates, access to technology, and cultural preferences.

Research on farmers' awareness of agricultural policies reveals a notable gap between policy design and grassroots implementation. According to Davis, Ekboir, and Spielman (2012), *"Strengthening Agricultural Extension and Advisory Systems: Procedures for Assessing, Transforming, and Evaluating Extension Systems"*, policy awareness is significantly shaped by educational attainment, social networks, contact with extension agents, and exposure to various media sources. Their findings suggest that farmers with higher education levels and greater access to information exhibit enhanced understanding of government schemes and subsidies.

Traditional media continues to play a critical role in policy dissemination, especially in developing regions with limited internet penetration. Fan and Qiu (2014), *"The Role and Challenges of Traditional Media in Agricultural Extension: Evidence from Rural China"* found that radio and television remain primary sources of agricultural and policy information for rural populations, particularly among farmers with lower educational backgrounds.

Farmers' perceptions regarding the effectiveness of government policies are largely influenced by their direct experiences with these programs, including the complexity of application procedures and the timeliness of benefit delivery. Kassie, Shiferaw, and Muricho (2013), *"Agricultural Technology, Crop Income, and Poverty Alleviation in Uganda"* observe that

farmers who have successfully utilized government support mechanisms tend to report more favourable views of policy effectiveness.

The literature also points to systemic challenges in agricultural value chains—such as limited access to credit, substandard input quality, crop insurance issues, and inadequate pricing mechanisms—that affect farmers' overall satisfaction with government interventions.

Access to agricultural information is unevenly distributed across gender and age demographics. Multiple studies highlight that women farmers often face greater barriers to extension services and government programs compared to their male counterparts. Conversely, younger farmers are generally more inclined to adopt digital platforms for information acquisition. These demographic dynamics necessitate inclusive and targeted extension strategies to ensure equitable access.

Persistent challenges hinder the effectiveness of agricultural extension systems. The literature identifies issues such as insufficient funding, limited geographic and demographic reach, poor coordination among extension agencies, and inadequate feedback loops between farmers and policymakers. These challenges adversely affect farmers' awareness and ability to benefit fully from government policies.

Methodology
Research Design
This study employed a cross-sectional survey design to collect quantitative data on farmers' awareness and perception of government agricultural policies. The research utilized a structured questionnaire to gather information from respondents.

Data Collection
Data was collected using a standardized questionnaire. The survey was conducted in multiple phases between September 2024 and January 2025, ensuring representation across different time periods and seasonal variations.

Sampling
The study used a convenience sampling approach, collecting responses from 103 farmers across rural communities near by Sohna Rural. While this sampling method has limitations in terms of generalizability, it provided valuable insights into farmer perspectives and experiences.

Data Analysis
Data analysis involved descriptive statistics to understand the distribution of responses across different variables. Cross-tabulation analysis was used to examine relationships between demographic characteristics and awareness levels.

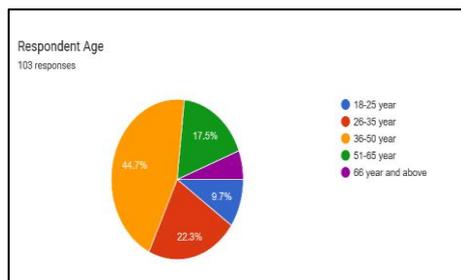## Data Analysis and Findings
Demographic Profile of Respondents
The survey included 103 respondents with the following demographic characteristics:
Age Distribution:

Respondent Age	Count	Percentage
18-25 years	10	9.7%

|		
26-35 years	23	22.3%
36-50 years	46	44.7%
51-65 years	18	17.5%
66+ years	06	5.8%
Total	**103**	**100**

(Table:1- Age Distribution)

(Graph:1- Age Distribution)

The age distribution of respondents shows that the majority (44.7%) are aged 36–50, indicating that middle-aged farmers are most active in agricultural practices and policy engagement. Farmers aged 26–35 (22.3%) reflect a younger, potentially more tech-savvy group open to new initiatives. The 51–65 age group (17.5%) offers experience but may face access barriers to modern information channels. Low representation of the 18–25 group (9.7%) suggests limited youth involvement in farming, while the 66+ group (5.8%) indicates minimal participation from senior farmers. These findings underscore the importance of age-targeted communication in agricultural policy awareness and implementation.

Gender Distribution:

| Respondent Gender	Count	Percentage
Male	72	69.9%
Female	30	29.1%
Others	01	01%
Total	**103**	**100**

(Table:2- Gender Distribution of Respondents)
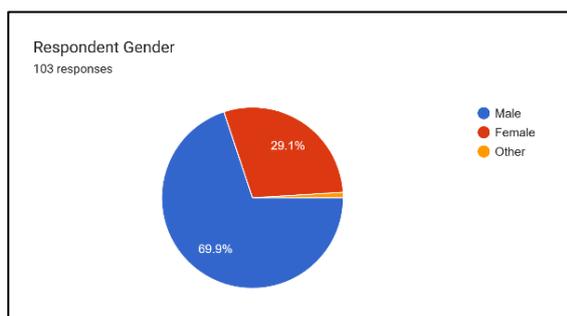
(Graph:2- Gender Distribution of Respondents)

The gender distribution reveals that most respondents are male (69.9%), indicating male dominance in agricultural activities and decision-making. Female respondents account for 29.1%, reflecting their active but limited participation. Only 1% identified as others, highlighting minimal gender diversity in farming-related roles within the study area.

Education Levels:

Respondent Education level	Count	Percentage
No formal education	23	22.3%
Primary school	24	23.3%
Secondary school	37	35.9%
Higher secondary	15	14.6%
Diploma	03	2.9%
Graduate degree and above	01	01%
Total	**103**	**100**

(Table:3- Education Level of Respondents)
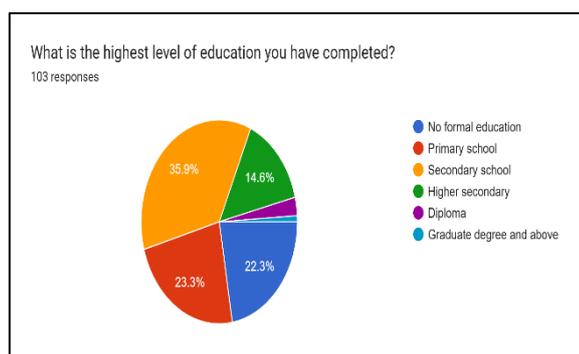
(Graph:3- Education Level of Respondents)

The education level of respondents indicates that the majority (35.9%) have completed secondary school, followed by primary education (23.3%) and no formal education (22.3%). Only 14.6% reached higher secondary, while diploma holders (2.9%) and graduates (1%) are minimal. This suggests limited higher education among farmers in the study area.

Information Sources Analysis to get information and News related to agriculture-

Source of Information	Percentage
Newspaper	29.1%
Radio	47.6%
Television	45.6%
Internet / social media	36.9%
Agriculture Extension Worker	8.7%

Others Farmer and Villagers	19.4%

(Table:4- Source of Information)
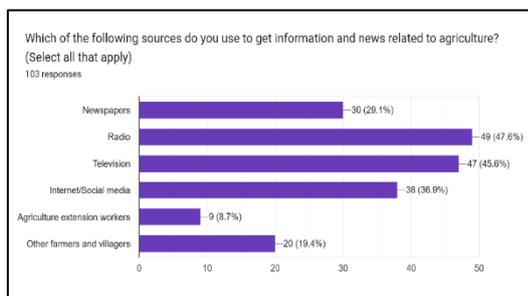
(Graph:4- Sources of Information)

The data shows that radio (47.6%) and television (45.6%) are the most preferred sources of agricultural information among farmers, followed by internet and social media (36.9%). Newspapers account for 29.1%, while only 8.7% rely on agriculture extension workers. Peer communication through farmers and villagers stands at 19.4%.

Exposure to Agriculture-Related Content on Mass Media in the last few Months-

Media Exposure-Agriculture-Related Content	Count	Percentage
Yes	38	36.9%
No	65	63.1%
Total	103	100%

(Table:5- Media Exposure- Agriculture-Related Content)
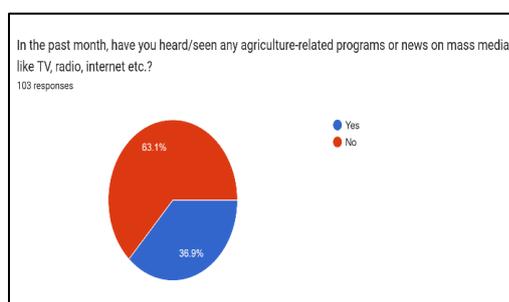
(Graph:5- Media Exposure- Agriculture-Related Content)

Only 36.9% of farmers reported exposure to agriculture-related content on mass media in the past few months, while a majority of 63.1% had no such exposure. This indicates limited reach of agricultural programs and highlights the need to improve the accessibility and dissemination of relevant information through mass media channels.

Policy Awareness Analysis
Awareness Level Distribution (Scale 1-5, where 5 is highest):

Awareness Level Distribution	Count	Percentage
Scale 1	10	9.7%
Scale 2	07	6.8%
Scale 3	54	52.4%
Scale 4	28	27.2%
Scale 5	4	3.9%
Total	103	100%

(Table:6- Awareness Level Distribution)
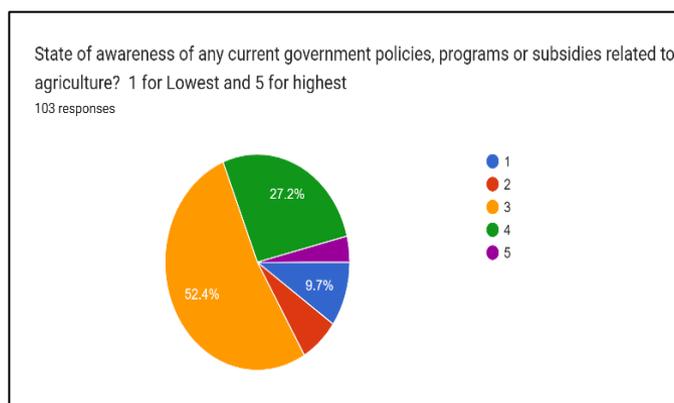


(Graph:6- Awareness Level Distribution)

The majority of farmers (52.4%) rated their awareness at Scale 3, indicating moderate awareness of agricultural policies. About 27.2% reported higher awareness (Scale 4), while only 3.9% achieved the highest awareness level (Scale 5). Lower awareness levels (Scales 1 and 2) were reported by 16.5%, suggesting room for improvement.

Specific Policies Known:

Policies Name	Percentage
Subsidized loans for farmers	49.5%
Crop insurance scheme	27.2%

PM Kisan Samman Nidhi	19.4%
Minimum Support Price for crops	34%
Soil health card scheme	22.3%

(Table:7- Specific Policies Known)
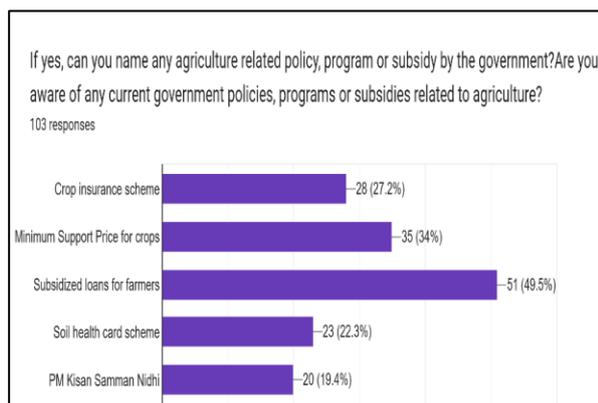
(Graph:7- Specific Policies Known)

Among the listed agricultural policies, subsidized loans for farmers were the most recognized, with 49.5% of respondents indicating awareness. This reflects the importance of financial support mechanisms in farmers' lives. The Minimum Support Price (MSP) scheme followed at 34%, showing moderate awareness of pricing policies intended to ensure income security.

Only 27.2% of farmers were aware of the crop insurance scheme, suggesting limited understanding or access to risk mitigation tools. Awareness of the PM Kisan Samman Nidhi scheme was even lower at 19.4%, despite its direct financial benefit to farmers. The Soil Health Card scheme was recognized by just 22.3%, indicating low penetration of knowledge about sustainable agricultural practices.

These findings point to a knowledge gap in key government initiatives and stress the need for targeted communication strategies and enhanced outreach, especially through trusted mass media and extension services.

Government Support Experience- Receipt of Government Support in Past 2 Years:

| Option	Count	Percentage
Support received	19	18.4%
No support received	84	81.6%
Total	103	100%

(Table:8- Specific Policies Known)
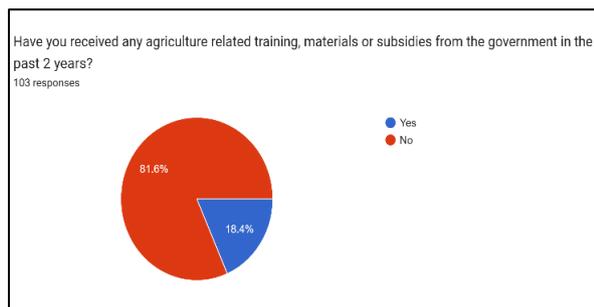
(Graph:8- Specific Policies Known)

The data reveals that only 18.4% of farmers received support under government agricultural schemes, while a significant 81.6% reported receiving no support. This indicates a substantial gap between policy availability and on-ground implementation, highlighting the need for better outreach, accessibility, and monitoring of support distribution mechanisms.

Policy Effectiveness Perception:

| Effectiveness Rating Distribution	Count	Percentage
Very effective	25	24.3%
Effective	09	8.7%
Neutral	52	50.5%
Ineffective	15	14.6%
Very ineffective	02	1.9%
Total	103	100%

(Table:9- Policy Effectiveness Perception)
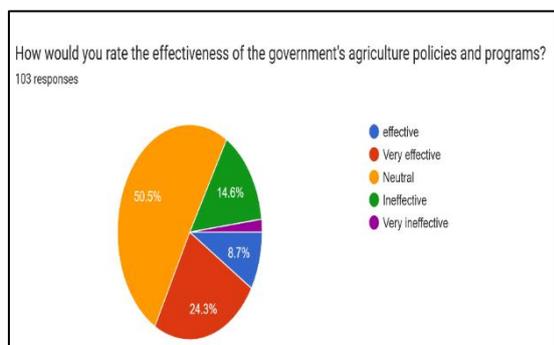
(Graph:9- Policy Effectiveness Perception)

The effectiveness rating data shows that only 24.3% of respondents consider government agricultural policies to be very effective, and 8.7% rated them as effective, indicating limited satisfaction among farmers. A majority (50.5%) remained neutral, suggesting uncertainty or lack of direct experience with policy benefits. Meanwhile, 14.6% rated the policies as ineffective, and 1.9% as very ineffective, reflecting dissatisfaction among a section of farmers. These responses highlight the need for more impactful implementation and clearer communication of policy outcomes.

Challenges Faced by Farmers-

Major Challenges Identified	Percentage
Access to irrigation	15.5%
Availability of quality seeds	20.4%
Access to timely credit	47.6%
Crop insurance	42.7%
Minimum Support Price	25.2%
Issues related to middlemen	19.4%

(Table:10- Policy Effectiveness Perception)
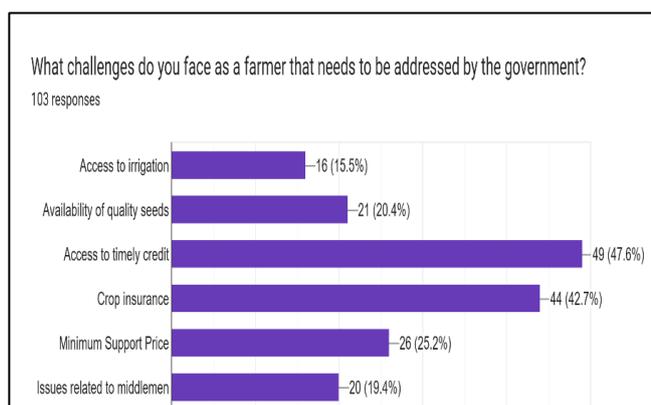
(Graph:10- Policy Effectiveness Perception)

The data indicates that the most pressing challenge for farmers is access to timely credit (47.6%), followed closely by crop insurance issues (42.7%), highlighting key financial vulnerabilities in the agricultural sector. Minimum Support Price (25.2%) and availability of quality seeds (20.4%) also pose significant concerns. Challenges related to middlemen (19.4%) and access to irrigation (15.5%) were reported less frequently but remain critical for productivity. These findings underline the need for policy focus on financial inclusion, risk coverage, and input accessibility.

Cross-tabulation Analysis:

Education vs Information Sources: Farmers with higher education levels showed greater diversification in information sources, with higher secondary and graduate-level farmers more likely to use internet/social media (46.7% vs 18.2% for those with no formal education).

Age vs Technology Adoption: Younger farmers (18-35 years) showed higher usage of internet/social media (42.9%) compared to older farmers (50+ years) at 21.7%.

Gender vs Policy Awareness: Male farmers demonstrated slightly higher policy awareness levels, with 28.9% reporting awareness levels of 4-5, compared to 24.0% among female farmers.

Conclusion

This study offers a comprehensive evaluation of farmers' awareness, perceptions, and experiences with government agricultural policies in the Sohna rural region, using a research-driven lens. The findings underscore a moderately informed farming community with 52.4% of respondents indicating mid-level awareness of government schemes, primarily accessed through traditional media such as radio (47.6%) and television (45.6%). However, digital media usage remains limited and closely linked to education levels, pointing to a digital divide that may hinder modern information dissemination strategies.

Despite moderate awareness, a significant implementation gap is evident—only 18.4% of farmers reported receiving government support in the last two years. This disparity reveals a critical disconnect between policy outreach and tangible benefits, emphasizing the need for robust monitoring, accountability, and simplified delivery mechanisms.

Policy effectiveness ratings were largely neutral (50.5%), with just 33% perceiving them as effective or very effective. Key issues such as limited credit access (47.6%), insufficient crop insurance (42.7%), and pricing mechanisms continue to obstruct farmer welfare. These structural challenges suggest a need for integrated policy reforms focusing on financial inclusion, risk management, and equitable market structures.

The study also identifies the potential of peer communication and community-based extension approaches in enhancing awareness. Future research should adopt longitudinal and experimental designs to measure the effectiveness of specific communication interventions and policy reforms on farmer knowledge, participation, and outcomes. This evidence-based analysis contributes to the broader discourse on agricultural extension systems and policy implementation in developing economies.

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